PREFACE.

The rapid growth of our country, which within a few years has definitely taken its place as one of the great powers of the earth, and is now universally recognized as such, presents every year a new and interesting chapter of history; and the most gratifying feature of it is the fact that so little of it is war history and so much is industrial and intellectual development. The American citizen who wishes to make himself familiar with these successive chapters, and realize to what a great republic he belongs, must read something that sums up, in a clear and concise form, the results of the various forces whose workings are seen only in a fragmentary way through the daily press.

To learn what our country accomplished in the year just closed, one should first read the article “United States,” then look over the article “Congress,” reading such portions as to him are most significant; then a careful reading of the “Financial Review” will enlighten him as to the great business movements, with their causes and consequences. Then, if he is inclined to ask “What is the use of all this wealth?” let him run through the article “Gifts and Bequests,” and learn to what noble uses tens of millions of American dollars are devoted every year. The articles on the “Farmers’ Congress” and the “National Grange,” together with the paragraphs on the agricultural colleges in the State articles, will show what is done for the advancement of the business of agriculture. And a special article this year on “Ship-Building” gives much hope of the revival of that important industry, which has been almost a lost art with us for forty years. The progress in jurisprudence is shown in the passages recording decisions in the Supreme Court of the United States and in those of the several States. The growth of religious life, and the efforts to spread the Gospel in missionary fields, may be seen in the articles on the various religious denominations, which are full of significant facts and statistics.

For the year’s movement in the progressive sciences, the reader may consult the articles “Astronomy,” “Chemistry,” “Medicine,” “Metallurgy,” “Physics,” and “Physiology,” all of which are subdivided and subheaded, so that any specific subject may be turned to at once. If he is interested in the work of the artists, he will find their record for the year under the title of “Fine Arts.”

In the domain of invention and experiment, the most interesting results are set forth, with illustrations, in the articles “Aerial Navigation,” “Submarine Boats,” and “Wireless Telegraphy.” To know what has been accomplished in exploration, the reader should turn to the articles “Archeology” and “Geographical Progress.” The former has some very curious illustrations.

There is always something problematical and interesting in a country that has recently been the seat of war, and few readers will fail to be interested in the account of present conditions in Cuba, South Africa, and the Philippines. Of the agencies that make for peace among the nations, are the Bureau of American Republics, the International Conference, the Sanitary Conference, and the various international
treaties, all of which are duly recorded. The troublesome question of the Alaska boundary is on the way to a peaceful and satisfactory solution, as may be seen by a glance at the article “Alaska.” The great cables that underlie the oceans and connect continent with continent, and with the isles of the sea, serve still further to prevent international misunderstandings and bring about speedy agreements. This volume contains an article on the projected American cable across the Pacific, and one on the completion of British cable connection all round the world, illustrated with a map. Still another agency of peace and good-fellowship is the international exposition. We present an account of that which closed recently in Charleston, beautifully illustrated, and a forecast of the Louisiana-Purchase Exposition.

The Carnegie Institution, just founded, which is the largest single transaction for advancement of education this year, is described; and the reader who wishes to trace the whole story of education in our country can do so by turning to the article “Libraries” and the various articles on the States.

Narratives of the great misfortunes of the year may be read under “Earthquakes and Volcanic Eruptions” and “Strike of the Coal-Miners.”

The Canadian articles have been carefully prepared by an eminent Canadian author, and one of them, “Manitoba,” includes the strange story of the Donkhobors.

The list of eminent persons, in various professions, who passed away in the year, and whose careers are recorded in the pages devoted to “Obituaries,” is large. In our country it includes the actors Neil Bryant, Annie Clarke, Harry Eytinge, Ada Gray, Daniel H. Harkins, Edwin Knowles, Sol Smith Russell, William Henry West, and Eliza Young, with the musicians Camilla Urso and George William Warren; the artists Albert Bierstadt, Thomas Nast, and Lily Martin Spence; the authors Charles Kendall Adams, Elbridge S. Brooks, Junius Henri Browne, William Allen Butler, Mary Hartwell Catherwood, Edward Eggleston, Thomas Dunn English, Paul Leicester Ford, Alfred Hudson Guernsey, Bret Harte, Frank Norris, Thomas E. Osborn, and Francis Richard Stockton; the clergymen Michael Augustine Corrigan and Eugene Augustus Hoffman; the educators John Henry Barrows, Thomas Gallandet, Alice Freeman Palmer, and Henry A. P. Torrey; the journalists Edwin Lawrence Godkin and George Hughes Hepworth; the jurists Noah Davis, David Ayres Depue, Horace Gray, and George Hoadly; the naval officers James Edward Jouett, Lewis A. Kimberly, William Thomas Sampson, and Thomas Oliver Selfridge; the physicians William Tod Helmuth and James Patterson Kimball; the scientists Alpheus Hyatt, Henry Morton, John Wesley Powell, and Ogden Nicholas Rood; the soldiers Wade Hampton, Francis J. Herron, Franz Sigel, and David Sloane Stanley; and the statesman Thomas Brackett Reed. The death losses of foreign countries included the artists Benjamin Constant, Thomas Sidney Cooper, Jules Dalou, and James Tissot; the authors Philip James Bailey, Aubrey De Vere, Alice Durand, Samuel Rawson Gardiner, Annie Hector, and Emile Zola; the clergymen Newman Hall, Joseph Parker, and Archbishop Temple; the scientists Frederick A. Abel, Alfred Cornu, Pierre Filhol, John Hall Gladstone, and Rudolph Virchow; the soldiers Christian Botha, Mariano Escobedo, and Lucas Meyer; the statesmen Marquis of Dufferin, Earl of Kimberley, Liu-Kun-Yi, Prince Münster, Lord Paunceforte, and Koloman Tissa; Emil Holub, the explorer; Fred Krupp, the industrialist; George Rawlinson, the Orientalist; and Cecil Rhodes, the politician and promoter.

The volume is illustrated somewhat more fully than usual, and it closes with a topical index.

New York, February 18, 1903.
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Among the Contributors to this Volume of the Annual Cyclopædia are the following:

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Sanitary Conference, International,
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Spencer, Lily Martin,
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GERMANY,
RUSSIA,
SOUTH AFRICA,
VENEZUELA,
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METALLURGY,
PREACHERS,
PHYSIOLOGY,
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SHIP-BUILDING IN 1902,
STORAGE DAM AT ASSUAN (in article Egypt),
YACHTING.

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MASSACHUSETTS,
MONTANA,
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SOUTH DAKOTA,
and other articles.

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CORRIGAN, MICHAEL AUGUSTINE,
PARKER, JOSEPH,
ZOLA, EMILE,
and other articles.

Dora Knowiton Banous.
COLORADO,
ENGLISH, THOMAS DUNN,
FRENCH, THOMAS HENRY,
HARRISON, GABRIEL,
MUNSTER, THOMAS HOYT MUNSTER,
ORSUM, THOMAS EMBRICK,
RUSSELL, SOL SMITH,
USHER, CAMILLA,
and other articles.

Corb M. Sarchet,
Of the Gothic State Capitol.

OKLAHOMA.

John M. Stahl,
Secretary of the Farmers' Congress.

FARMERS' CONGRESS.

Charles Coleman Stoddard.
AERIAL NAVIGATION,
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SUBMARINE BOATS,
WIRELESS TELEGRAPHY,
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LIBRARIES.

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MEDICINE, ADVANCES IN,
PRYTSFOFF, MIKHAIL VASILIEVICH,
SIMPSON, MAXWELL,
VIRCHOW, RUDOLF,
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*Franz Szel, Lily Martin Spencer, David Sloan Stanley, Elizabeth Cady Stanton, Frederick Temple, Joseph M. Terrell, James Thosot, Henry Augustus Pearson Torrey, Emilie Zola*

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THE ANNUAL CYCLOPÆDIA.

ABYSSINIA, an empire in eastern Africa, known also as Ethiopia. The ruler, whose title is Negus Negusti, meaning King of Kings, is Menelek II, born in 1842, originally King of Shoa, who established himself on the throne, with the aid of arms furnished by the Italians, after his predecessor, Johannes II, had been slain in a battle with the dervishes of the Egyptian Mahdi. Menelek signed on May 2, 1889, the treaty of Ucciali under which Italy laid claim to a protectorate over the whole of Abyssinia, which claim was abandoned after the defeat of an Italian army at Adowa, and in the convention of Adis Abeba, signed Oct. 29, 1896, the independence of Abyssinia was recognized by Italy, and Abyssinia recognized as Italian territory the country north of the Mareb, Belesa, and Muna rivers and a strip of coast 180 miles broad in front of the Abyssinian tableland. The Government of Abyssinia is feudal, each ras, or governor, ruling his province and having his separate military force. The regular army, consisting of these contingents, numbers about 150,000 men, all of whom should be mounted, and many of whom now carry, instead of spear and shield, the Grau rifles surrendered by the Italians or imported magazine rifles. At Adis Abeba, his capital, the Negus Menelek has 7 batteries of field-artillery and revolving cannons which were captured at Adowa. The area of Abyssinia is estimated at 150,000 square miles, the population at 5,000,000. The people rear cattle, sheep, goats and cultivate barley, durra, wheat, hops, and tobacco for their own cultivation. The hides and skins, civet, coffee from wild shrubs, gum, wax, ivory from the Walega and Gallia countries, and some gold are exported. Iron is mined by the natives and forged into knives, axes, and spears. American cotton cloth is the largest article of import. The imports at Harar in 1900 were estimated at 3,822,850 and exports at 2,991,600 Maria Theresa dollars. The French have constructed a railroad from the port of Jiboutil to Harar, 186 miles. Harar is a town of about 30,000 inhabitants, mostly Mohammedan, situated on an exceedingly fertile plateau. The railroad is destined to carry all the trade of eastern Abyssinia to Jiboutil, depriving the British port of Zeila of the share it now has and taking away much of the trade of Aden. Before the railroad was finished an international syndicate, composed in part of English capitalists, obtained a large interest in its affairs. The French Government, jealous of foreign influence, determined to keep the control of the line in French hands and prevent the construction of a branch line to Zeila, as proposed by the British members of the syndicate. Accordingly an arrangement was made on Feb. 6, 1902, whereby the colony of Jiboutil, with the approval of the French Government, agreed to guarantee interest on the company's capital to the amount of 500,000 francs per annum. To enable the colony to carry out this agreement the French Chamber voted to grant to Jiboutil an annual subvention of 200,000 francs for fifty years. Eventually the French railroad will be built through to Adis Abeba, the Abyssinian capital. Jiboutil will be made a first-class naval station. Harar products sent over the railroad to Jiboutil are exempted from all duties excepting the tithe, which is levied on all crops. British concessionaires have obtained from Menelek the right to work gold-mines on the banks of the Baro river. The telegraph to connect Adis Abeba with Massowah was begun in the summer of 1902. In June Ras Makonen, the nephew of the Negus and his principal general, went to England with Col. Harrington, the British diplomatic representative in Abyssinia, and M. Ilg, Menelek's Swiss minister, to represent the Negus at the coronation of King Edward VII. Subsequently, he paid a visit to the United States, accompanied by CountCONSTANTINE to secure the recognition by the Sultan of the Abyssinian Church as an independent body. The adherents of the Abyssinian Church at Jerusalem have hitherto comported themselves as the Armenian patriarch, since the Coptic creed is nearly allied to the Gregorian. In their claim for ecclesiastical independence they have been supported by Russia.

ADVENTISTS. L Advent Christians.—The Advent Christian Association and General Conference of America in 1800 adopted a Declaration or Conclusive Statement of its Fundamental Principles, in which, after expressing its belief in God, Jesus Christ, and the Holy Spirit as held by the orthodox churches generally, it set forth its distinctive doctrine of "conditional immortality" to the effect that man, created for immortality, had forfeited this birthright by sin, in consequence of which death had passed upon all the world; and that men could become partakers of the divine nature and live forever only through faith in Jesus Christ; that death is a condition of unconsciousness to all, which will remain unchanged until the resurrection at Christ's second coming, when the righteous will receive everlasting life and the wicked will be punished with complete extinction; and that salvation is free to all who in this life and age will
ADVENTISTS.

accept the conditions imposed of turning from sin, repentance, faith in Christ, and a life of consecration—"thus excluding all hope of a future probation or of universal salvation." Belief in the visible and personal second coming of Christ to the earth, his reign here forever, and the renewal of the earth to be forever free from sin and death is further expressed. Christ's appearance at his coming being indicated in Bible prophecy, is believed to be near, and the proclamation of this truth to be the great duty of the hour. The statistics of the denomination have not been systematically compiled. A committee was appointed in 1900 to prepare an annual of denominational statistics. It secured returns from 32 out of the 60 conferences, and some local and scattered items in addition, and has published as the summary of the condition of these bodies the following totals: Number of ordained ministers, 716; of licensed ministers, 112; of churches, 646, with 23,590 members; of Sunday-schools, 241, with 11,870 enrolled members. Four publishing societies—the Advent Christian Publishing Society, Boston; the Nigerian Advent Christian Publishing Society, Mendota, Ill.; the Pacific Advent Christian Publication and Mission Society, Oakland, Cal.; and the Southern Advent Christian Publication Society—issue each a weekly religious newspaper, and a monthly periodical is published at Worcester, Mass., and quarterly at Boston, Mass., and Sunday-school periodicals and helps as well as a considerable number of denominational books are published at the house in Boston.

The American Advent Mission Society was organized in 1895, primarily to labor among the freedmen in the South, but now includes foreign and domestic departments. In the foreign field it supports in whole or in part 8 laborers, with 15 native workers, and several free laborers at Nanking, Wuhu, and Han Shan Hsien, and several substations in China and in India, where a publishing house has been established at Bangalore, with a selling and lending library. Literature is printed at this establishment in 7 languages, and is distributed by agents in 15 centers and other places. The work of the society in England has also increased, with the sending of a self-supporting, Portuguese missions are maintained in the Cape Verde Islands and in Taunton, Mass. Mission schools are sustained at Nanking and Wuhu, China, and in India. The society is also aiding 10 or more workers in the home field, besides assisting several conferences in their mission work. The home missions are largely in charge of the Western and Southern Home Mission Boards. A Church Extension fund is operated in connection with this society. The Advent Christian Helper's Union, organized in 1894, is a woman's society auxiliary to the mission society in its foreign work. The Woman's Home and Foreign Mission Society, organized in 1891, works through the mission societies, churches, etc., in home missions, but carries on foreign mission work on its own account, principally in India, where it supports several schools, orphanages, 3 missionaries, and about 20 workers. It publishes the All Nations Monthly, Rockland, Me. The young people are organized into the Young People's Society of Loyal Work, looking after the welfare of the general Eastern and the general Western societies, which have together 116 local societies with about 5,000 members. The educational institutions are Mendota College, Mendota, Ill., founded in 1893, for both sexes, with 4 departments and 4 courses of study, and the Boston Bible School, established in 1897, and incorporated in 1902. The Loyal Workers' Institute is a course of reading to be pursued at home.

II. Life and Advent Union.—The distinctive doctrines of this branch of the Adventists include the extinction of the wicked at death and the resurrection of the just to everlasting life. It holds a general conference in each year at the meetings—in Maine, Connecticut, and Virginia—and quarterly conferences in some places. The Life and Advent Missionary Society and the Young People's Life and Advent Missionary Society are organizations for carrying on home-mission work exclusively. A considerable number of books, with the Herald of Life, the newspaper organ of the denomination, are issued from the publishing house at Springfield, Mass. Fifty-one ministers are registered on the rolls of the General Council, with about 24 churches; and there are other ministers whose names have not been enrolled. The number of members is not given in the reports of the body, but is estimated to be about 3,500.

III. Seventh-day Adventists.—At the Seventh-day Adventist General Conference of 1901, a new constitution was adopted and important changes were made in the organization of the church. Among these it is considered that one of the most important changes was the grouping of the State conferences into union conferences, each representing a definite district or number of States, to take over a part of the work of the General Conference, and among which many of the functions and duties hitherto performed by it and its liabilities and assets were to be distributed according to their local relations and strength. Six of these union conferences were constituted in the United States, one in Canada, one in Europe, and one in Australasia. This change was accompanied with a readjustment of the affairs of the General Conference Association, the legal arm of the General Conference. Steps were taken late in 1901 to apportion the liabilities of this association to the union conferences according to the institutions within their borders and their ability to pay. The plan adopted contemplated the creation of a legal corporation within the territory of each conference for the transaction of legal business and the transfer to such corporations by the General Conference Association of whatever institutions and church property it was holding in India. The assumption by them of the corresponding liabilities, in such a way that the General Conference Association should be relieved of a large share of its financial obligations and they should be assumed by those union conference organizations within whose borders the assets are located, whether in the form of church buildings, school properties, or otherwise. This arrangement was accepted by most of the union conferences. The General Conference Committee was likewise reorganized to meet the new conditions in February, 1902, with such reorganizations as seemed called for of the Mission Board, the trustees of the Foreign Mission Board (constituting the legal corporation), the educational department, the educational department, the Sabbath school department, the General Conference Association, the Auditing Committee, committees on German and on Scandinavian work in North America, and transportation agencies.

The European General Conference was organized July 23, 1901, and embraces two union conferences—the German and the Scandinavian—together with the British and Central European
Conferences and the Oriental mission field. Each of the union conferences includes three duly organized local conferences, besides unorganized mission territory. At last reports 60 ministers and about 100 other workers were employed within its territory, with about 7,500 Sabbath keepers, from whom a tithe of nearly $50,000 a year was received. A mission training school, at a health institute, a food factory, and an industrial school are located at Friedensau, Germany, where the conference was held; a health institute has been established in Denmark; and publishing houses are sustained in Norway and Sweden.

The summary of the statistics of the Church in all parts of the world for the year ending Dec. 31, 1901, includes footings from the union and State and local conferences and missions as follow: Atlantic Union (9 conferences and mission), 8,430 members; Canadian Union (4 conferences, etc.), 1,563 members; Southern Union (8 conferences, etc.), 2,500 members; Lake Union (5 conferences, etc., and the church at Battle Creek, Mich.), 19,889 members; Northwestern Union (5 conferences, etc.), 11,791 members; Southwestern Union (6 conferences, etc.), 10,144 members; Pacific Union (9 conferences, etc.), 8,864 members; German Union, 3,818 members; Scandinavias, 9,059 members; British Union, 992 members; Central European Union, 492 members; Oriental missions, 236 members; Australasian Union Conference (7 state conferences or missions), 2,833 members; and the many missionaries in South America and missions in Mexico, the West Indies, Central and South America, India, Japan, China, South Africa, and the islands of the sea, of which 25 are enumerated, 4,337 members; total, 75,158 members, showing an increase of 2,429 from the previous year. Other footings of the table are: Whole number of laborers (553 ministers, 340 licentiates, 611 missionary licentiates), 1,081; of churches, 2,011, with 80,356 members; of companies, 356, with 5,239 members; of isolated Sabbath keepers, 3,583; amounts of tithes, $678,028, showing an increase for the year in this item of $66,369. The Seventh-Day Adventists have several publishing houses in the United States, including the one at Battle Creek, Mich.; other publishing houses located in the countries of Australia, issuing periodicals and books in several languages; a large sanitarium at Battle Creek, Mich., and other sanitariums in the United States and many other countries, a number of educational institutions in America and abroad.

IV. The Church of God.—This branch is the result of a separation from the Seventh-Day Adventist Church, which took place about 1865, on account of differences respecting certain points of doctrine and practise. The number of members is estimated at about 6,000. It has a sanitarium (controlled by a stock company) at White Cloud, Minn., and an orphan asylum at Renwood Park, Iowa. The meetings are mostly held in schoolhouses, so that the value of church property is estimated to be not more than $2,000; while the cost of the sanitarium was about $20,000. The General Conference was incorporated in 1869, and usually meets at Stanberry, Mo., where the denominational publishing house is situated, and where 3 periodsical and large editions of tracts are published. At the eighteenth annual Conference, held at Stanberry, Mo., in November, 1876, 60 members were added and expenditures of $2,865. Resolutions were adopted expressing belief "in the personal coming of Christ, the absolute mortality of man, the resurrection of the dead, a judgment at which the kingdom on earth and the perpetuity of God's moral law, the Ten Commandments, including the fourth, which requires the observance of the seventh day of the week as the holy Sabbath of the Lord," as the truths which distinguish the denomination as a people, and directing that these subjects be made paramount in all the denominational publications and preaching. Another resolution declared that the purpose of the General Conference include works of benevolence and charity.

V. The Churches of God in Christ Jesus (or Age-to-Age Adventists as they are popularly known) are a group of churches that look for the final restitution of all things which God hath spoken and the actual establishment of the kingdom of God on the earth with Christ as king; and for the literal resurrection of the dead, with immortality to the righteous and the final destruction of the wicked. In the absence of officially published statistics, it is estimated that they have 182 organizations worshiping in their own buildings and nearly as many in other rooms, with Sunday-schools maintained wherever there is an organization, and about 5,000 members. The business is transacted by the State or district conferences.

AERIAL NAVIGATION. All the recent comparatively successful attempts at navigating the air have been by means of the development and improvement of dirigible balloons; little has been done to carry forward the splendid experiments of Maxim and De Lorme (see Annual Cyclopaedia for 1897, p. 4). The idea of a spindie-shaped balloon, sustaining passengers and machinery, and impelled by a wheel composed of vanes or fans of canvas at one end, both of its extremities, is not new, and such an invention was mentioned in a letter written by Francis Hopkinson to Benjamin Franklin as early as May 24, 1784. Rufus Porter exhibited models of such a machine in New York and Washington in 1835-40 which flew rapidly and were capable of sustaining themselves for a considerable length of time; but his large machine, its balloon 100 feet long and 16 feet in diameter, was a failure. He used steam as his motive power.

Giffard, Tissandier, Renard.—The first successful dirigible balloon of the present day is a Giffard, which was built in 1852, and used as a propelling power a high-pressure 3-horse-power steam-engine with a small boiler, together weighing about 500 pounds and providing enough power for an airplane. The balloon was spindie-shaped, 3.66 diameters (144 feet) in length, and attained a maximum speed of 6.7 miles an hour. Twenty years later M. Depuy de Lôme employed manpower in the impulsion of a balloon 115 feet long and capable of carrying 10 or 15 men, 7 of whom furnished the power, and attained a speed of something more than 6 miles an hour. M. Gaston Tissandier adopted the electric storage-battery, coupled with a dynamo-electric machine, as a source of power. He constructed for the exhibition of 1851 a model, 11 feet long and 4 feet in diameter, filled with hydrogen, and drove it at the rate of about 10 feet per second (about 7 miles an hour), as a maximum. With his brother, M. Albert Tissandier, he built another, 91 feet long and 29 feet in diameter, fitted with a Siemens dynamo, driving a screw nearly 10 feet in diameter, and supplied with a current from an accumulator of 368 volts and 3,000 amperes, and able to lift about 400 pounds. This machine, carrying two inventors, made at various times from 7 to 9 miles an hour for an hour or two together.

Meser, Renard, and their experimental ballooners like their rivals, in Paris, also constructed a some-
what similar machine, 165 feet long and 27½ feet in diameter, impelled by a battery invented by M. Renard, a dynamo, and a screw 7 feet in diameter. This apparatus at various times in 1884 went from 12 to 15 miles per hour. The motor gave out about 5 horse-power, and the machine was able to take any course desired in a calm, and even to contend against a slight breeze. Brazil's air balloon made a number of voyages, occasionally to distant points, sometimes returning to its point of departure. Its car and impelling machinery constituted one of the most interesting of the exhibits of the French Government at the Paris Exposition of 1889.

Count Zeppelin.—New interest was awakened in the summer of 1900 by the successful ascents made by Count Zeppelin at Lake Constance. His employed in these experiments an immense balloon, consisting of 17 cylindrical gas-bags confined in a cylindrical case with conical ends, 420 feet long and 39 feet in diameter. Beneath this was suspended a frame supporting 2 aluminum cars 20 feet in length, one forward and one aft, connected by speaking-tubes, for the crew and machinery. Two rudders, one forward and one aft, served to steer the craft, which was driven forward or backward by 4-bladed screw propellers 3½ feet in diameter, 2 geared to each motor. The power was furnished by 2 16-horse-power Daimler benzine engines, weighing 715 pounds each, and 1 placed in each car. The ship was made to travel in a horizontal or an inclined plane by means of a weight sliding along a cable beneath and parallel to the longest axis of the balloon shell. When it was desired to descend the forward end of the balloon was thrown upward by sliding the weight aft; when a descent was to be made it was thrown downward by sliding the weight forward. When the weight was at the exact center the ship was in equilibrium and maintained a horizontal course. The first ascent was made July 2, 1900, with 5 persons in the car. After one 1,200 feet the ship traveled 32 miles in seventeen minutes in a prescribed direction, and was then forced to descend on account of an accident to one of the rudders. On Oct. 17 the ship remained in the air for an hour at an average height of nearly 2,000 feet; it traveled the 6-mile circumference of a circle, making noticeable headway and remaining in perfect control against a 7-mile wind. After completing its evolutions it alighted gracefully and gently to the surface of the lake where its balloon shed was placed.

Santos-Dumont.—In 1901 much attention was called to the experiments of M. Alberto Santos-Dumont, a young Brazilian resident in Paris; especially when on Oct. 19 he succeeded in winning the prize of 100,000 francs offered by M. Henri Deutsch, one of the members of the Aero Club, in April, 1900, to the navigable balloon that, starting from the Aero Club Park, at St. Cloud, should steer around the Eiffel Tower and return to the point of departure in less than half an hour. Even before his arrival in Paris in 1897 Santos-Dumont had experimented with aeronautics, and on July 4, 1898, made a successful ascent from the Jardin d'Acclimatization in the smallest spherical balloon that at that time ever had been made, 18 feet in diameter. At the same time he was constructing his first dirigible balloon, the Santos-Dumont No. 1. This was in the form of a cylinder with conical terminations, 80 feet long and about 6 feet in diameter. The suspended basket carried a 2½-horse-power gasoline motor operating a screw propeller. The ascent of this balloon, from the Jardin d'Acclimatization, Sept. 29, 1898, almost resulted in disaster. It rose to the height of 1,200 feet, showed itself to be absolutely dirigible, and delighted the spectators with its marvelous evolutions. Suddenly it was seen to collapse and the wreckage with the aeronaut came tumbling to the earth. The air-pump supplying the small interior air-ballon, designed to keep the outer envelope always swelled out, had proved insufficient, and under the weight the whole thing folded upon itself. Fortunately the mass of wreckage acted as a parachute, and M. Santos escaped much larger, and launched May 11, 1899, showed the same defects, and after an unsuccessful trial was abandoned, and work immediately begun on No. 3, which embodied many innovations. The inner air-ballon was dispensed with, although he has used it in No. 4 and the later models. It was cigar-shaped, 90 feet long and 11½ feet in greatest diameter. There was no netting about the silk tissue, but a strong belt was sewn into the lower part of the balloon on either side to which short pieces of wood were attached. From them was suspended the so-called "keel," a long bamboo pole which supported the basket and other apparatus. A 4½-horse-power petroleum motor worked a 5-foot propeller giving 2,500 revolutions a minute. A rudder of bamboo and silk with an area of about 25 square feet was used to guide the ship. At each end of the balloon was fastened 50 pounds of ballast controlled by guys. When the aeronaut wished to rise he let out the stern guy, and 50 pounds of ballast fell astern, throwing the bow end of the balloon upward at an angle of 25 or 30 degrees. To descend it was only necessary to let out the bow wire and draw in the stern weight. On Nov. 13, 1899, a-
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Ascending from Vaugirard he sailed to the Champs de Mars, and, after circling the Eiffel Tower several times, laid a straight course for Auteuil, and thence to the maneuver grounds at Bagatelle, where he safely landed. In No. 4 he improved on No. 3 by making his balloon less clumsy, 95 feet long and 9 feet in diameter, and by dispensing with the suspended basket. The 7-horse-power motor and the other mechanism was fastened directly to the keel, a long framework of bamboo strengthened by wires, and the inventor managed the machine from a bicycle seat fastened to the keel. The machine was completed in August, 1900, and made numerous short ascents during the Paris Exposition of 1900, notably on Sept. 19, in the Bois de Boulogne, in the presence of the International Aeronautic Congress. Balloon No. 5 was made by inserting into No. 4 a cylindrical piece sufficient to make its total length 109 feet. A 60-foot keel, framed of pine and piano-wire, supported a 16-horse-power motor with its appendages and a basket car for the aeronaut. With it, July 12, 1901, ascending from the Aero Club Park, he crossed the Seine to the Longchamps race-track, took the air-ship ten times around the track, and then sailed to the Trocadero, and after a slight delay, caused by an accident to the rudder, went round Eiffel Tower, back to Longchamps, and thence across the Seine to Aero Park. The following day was set for an attempt for the Deutsche prize. The start took place in the presence of the club members at nineteen minutes to seven in the morning. The Eiffel Tower was doubled at five minutes to seven, but a strong current of air caught the ship shortly after the turn, driving it toward Longchamps, where he landed in the gardens of Baron Rothschild. On Aug. 18 he made another attempt, but this time his balloon collapsed and the whole structure with its operator fell to the roof of the Trocadero Hotel. His new machine, No. 6, ellipsoidal in form and carrying a 20-horse-power motor, was built upon practically the same lines, and on Oct. 19, 1901, succeeded in capturing the coveted prize. The trip from St. Cloud to the tower was made in nine minutes, and the return trip, against the wind, in twenty minutes and thirty seconds. M. Deutsche's 100,000 francs were generously distributed by the victor among the poor of Paris and all the assistants who had contributed to his success. Soon after his success in Paris he was summoned to Monte Carlo by the Prince of Monaco, there to attempt the crossing of the Mediterranean Sea. He made a successful ascent on Jan. 23, 1902, taking with him his friend M. Aimé, and sailing about the bay and proceeding more than a mile seaward. On Feb. 14, while making his fifth trip across the bay the guide-rope caught in the screw. With the intention of freeing the entangled tackle, M. Santos threw his balloon into a perpendicular position, whereupon the petrolume began to escape from his motor. The aeronaut, fearing an explosion, pulled the emergency rope, tearing a great rent in the silk envelope, and the gas rapidly escaped, causing the balloon to descend into the sea. A steam-launch belonging to the Prince of Monaco's yacht picked up M. Santos with all possible speed; and the disabled balloon, which did not sink, was taken in tow and conveyed to land. This balloon, No. 6, with some slight alterations, was brought to the United States in July, 1902, and ascended from Brighton Beach by Mr. Edward C. Boice in his ascent on Sept. 30, 1902.

Stanley Spencer.—On the afternoon of Sept. 19, 1902, ascending from the Crystal Palace in London, Mr. Stanley Spencer steered a navigable balloon of his own invention over Dulwich, Herne Hill, Clapham Junction, Victoria Bridge, and the southwest of London to Ealing, and finally to Harrow—in all, a distance of about 30 miles, or about three times the longest distance ever attained by Santos-Dumont. While in the neighborhood of Herne Hill, Mr. Spencer caused the air-ship to perform numerous evolutions—darting downward, as though falling to the earth; suddenly arresting the descent, and again rising. At Ealing, which was reached at five o'clock, an hour after the start, similar maneuvers were gone through over the principal thoroughfares. The course was then altered to north-east, and a safe landing was effected near Harrow. The machine was at all times under perfect control, and at the end of the trip lighted so lightly "that a child might have been under it without being hurt." This ship, built by the Mesr, Spencer, differs very radically in some respects from the Santos-Dumont type, and is de-
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The main point of difference lies in the wooden screw, constructed on the Hiram Maxim system, which is fixed in front of the body of the machine and pulls or sucks it forward through the air, instead of propelling it from the rear, as in the Brazilian's air-ship. The framework is entirely of bamboo, lashed and bolted to one another, and, with the exception, of course, of the motor and steering-board, there is practically no metal on the whole machine. The result of this is shown by the scales. The total weight, with everything fixed, is under 300 pounds, the frame accounting for 125 pounds of this. The car is novel, inasmuch as the place of the usual basketwork is taken by bamboo cross-bars and netting. The framework—which is 45 feet long—is in 3 parts, for convenience in transit. The driving-power is furnished by a Simms petroleum motor of 35 horse-power. The gas-bag is 75 feet in length, and is not covered with netting, it being found difficult to enclose properly a balloon of elongated shape. When the aeronauts—the vessel will carry two light-weights—desire to descend, air is pumped in from the ground, thus forcing the gas from the car as the gas is allowed to escape, in order that the balloon may always remain taut. Automatic valves release gas should the pressure become too great. The envelope is made of three coats of special varnish, one outside and two in. By means of this it is believed that the fabric itself will be undamaged by either the gas within or the air without. On Oct. 20, M. de Bradsy made another successful trip of 26 miles, ascending at Blackpool, Lancashire, and descending near Preston. A strong breeze was blowing when he ascended. When he reached a height of about 1,000 feet he made several evolutions against the wind, and finally sailed away in the direction the wind was blowing.

Severo and de Bradsy.—Aside from many minor accidents to balloonists and some deaths in various parts of the world, two shocking accidents mark the year's experiments in Paris. Several Augusto Severo, a member of the Brazilian Congress and an enthusiastic aeronaut, made an ascension May 12, 1902, from the aerodrome at Vaugirard in his huge ship La Paix, in the presence of his family and a large party of friends. All seemed to go well, the breeze from the south-east suitably toward Issy, whence the party were to follow in automobiles to witness the descent. Fifteen minutes later, at an altitude of 1,500 feet above the Avenue du Maine, opposite the Rue de la Gaîté, the balloon suddenly turned, was enveloped in a flash of flame, followed by a terrific explosion, and Severo and his machinist Bachet, who had ascended with him, were dashed with the car to the earth and instantly killed. The explosion was probably caused by the ignition of escaping hydrogen gas from the balloon at one of the nozzles, but the exact cause never will be known. In general appearance La Paix resembled the ships of Santos-Dumont. The gas-bag, 94 feet long and 40 feet in diameter, had a capacity of 70,000 cubic feet. The framework of the car was of steel tubing and bamboo and carried two petroleum motors, one of 16 horse-power at the bow and one of 24 horse-power at the stern, of the Buchet type. There were 6 screw propellers, one at the stern of the balloon, another at the stern, and a third at the stern of the car, two others working laterally at the right and left and steering the ship by the helm in the ordinary sense of the word, and a sixth screw designed to aid in ascent or descent, as might be required. The mechanical parts were carried very little below to the gas-holder, and the motor at the stern was very near the automatic valve designed to let off the excess of hydrogen as the envelope expanded through the rarefaction. On Oct. 13 Baron de Bradsy Labonn and his assistant, M. Morin, were killed at St. Cloud through the breaking of the wires that held the suspended car and motors to the gas-holder. The de Bradsy ship was cylindrical with conical terminations, 100 feet long and 20 feet in diameter at the thickest part. A light wooden framework running around the balloon supported on steel wires a frame 70 feet long of steel tubes. It carried a car 16 feet long, suspended 10 feet below the envelope of the balloon, which guarded it against risk of fire from the 16-horse-power petroleum motor. The frame weighed 300 pounds. The air-ship was propelled by a screw 12 feet in diameter, and had a vertical screw placed beneath the car to aid in ascending and to keep the ship afloat, as it was built to displace exactly with the aeronauts its own weight of air. The rudder had a surface of 5 square yards. A notable machine in the car as the gas is allowed to escape, in order that the balloon may always remain taut. Automatic valves release gas should the pressure become too great. The envelope is made of three coats of special varnish, one outside and two in. By means of this it is believed that the fabric itself will be undamaged by either the gas within or the air without. On Oct. 20, M. de Bradsy made another successful trip of 26 miles, ascending at Blackpool, Lancashire, and descending near Preston. A strong breeze was blowing when he ascended. When he reached a height of about 1,000 feet he made several evolutions against the wind, and finally sailed away in the direction the wind was blowing. M. Emmanuel Aimé, the expert, in describing the ascent and the cause of the accident, writes as follows: "As the air-ship advanced slowly, at an altitude of 200 meters, turning round and round as it went, sometimes advancing, sometimes moving backward, swinging to port and to starboard, in spite of the rudder, to which M. Morin held the tiller, and, in spite of its propelling screw, which was under the direction of M. de Bradsy, it was only too easy for the spectators to perceive that it was drifting at the mercy of the wind. In reality, though the air-ship obeyed neither rudder nor propelling screw, it obeyed only too well the disas trose action of the ascensional screw, the perturbing influence of which would have sufficed to paralyze the effect of both the propelling screw and the rudder, even if the motor had been strong enough to resist the light breeze from the south-east. The ascensional screw turned vertically under the car at a rate of 500 revolutions per minute and made the air-ship swing round at a rate of about one turn per minute. Under these circumstances the propelling screw and rudder were powerless. What was necessary was a second vertical screw, turning in a contrary direction to the first, to neutralize the tendency to rotation. M. Bradsy, however, had to give up the idea of making these changes on account of the extra weight it would have entailed. In spite of the recent augmentation in volume, there was no lifting power was still too feeble to allow of any addition to the motor. The ascensional screw provided another, and still more disastrous effect, which did not escape the attention of those versed in aeronautics. From the Place de l'Opéra it was plainly visible that under the influence of this screw the axis of the balloon, obliged to turn by the resistance of the air, ceased to be parallel to the axis of the car, and that, in consequence, the steel wires which fastened the car to the balloon underwent a tension which tested their solidity."

The next day after the strain had worn the wires from their fastenings and caused the fatal termination of the ascension.
Stevens, Lebaudy, and Others.—Other experiments have been made in 1902 by Leo Stevens with a ship that he has christened The Pegane. It is a gas-bag, cylindrical with conical ends, 22 feet in diameter and 86 feet long, with an inside air-bag 20 feet long. The framework suspended 12 feet below is 25 feet long and weighs over 1,000 pounds. The motors 350 pounds. The propeller, consisting of 2 blades 72 feet long, is placed at the forward end of the ship. On either side of the gas-holder is what is called an aerodynamic parachute 56 feet long, which is supposed to open out in descending and steady the ship.

Several private trials have been made of an airship, the Jupiter motors, by Paul and Paul Lebaudy and an engineer named Julliot. On Nov. 13, 1902, it is said to have made a speed of 25 miles an hour against a light wind and to have landed, its whole crew, readily and promptly. The following details of its construction have been given to the press:

"The Lebaudy balloon is similar in appearance to that of M. Santos-Dumont. It is 443 yards long and 12 yards in diameter. The car is 53 yards long and can hold 3 persons. The propeller is driven by a motor of 40 horsepower."

The only ascents of dirigible balloons so far made in America were those of Leo Stevens's Pegasus and the Santos-Dumont No. 6 at Manhattan and Brighton Beaches, New York, respectively on the afternoon of Sept. 30, 1902. Mr. Edward C. Boice, in the Santos-Dumont, after rising gracefully to a height of 800 feet circled the Brighton Beach Hotel and then took a straight course for Sheepshead Bay, directly against an 8-mile breeze. He had complete control of his machine, and for about 3 miles kept a comparatively horizontal course, when a gust of wind blew a suspended rope against the propeller, with which it became entangled, and he was forced to descend. Mr. Stevens was less successful. His ship had previously made two unsuccessful attempts at flight, and was still unruly. After some evolutions he sailed 3 miles in the direction of Coney Island. He lost the handle-bar with which he controlled the propeller, and was left without motive power, and was again used by the men, under similar meteorological conditions, the route being over Teltow, Potsdam, Lehnin (13 miles west of Potsdam), Döberitz (100,000 and 65. To the point where the landing was effected. Here on two successive days, with a change in the wind, practically the same course was covered, with one balloon flying, the balloon remaining in service for forty-one hours in all. On July 27, 1902, Capt. Eric Unger of the engineer corps of the Swedish army traveled more than 540 miles in a balloon in fourteen hours and a half, descending near Novgorod, Russia. On Sept. 19, while attempting, in the presence of King Oscar, at Stockholm, to cross the Baltic to Germany and the south of Europe, his balloon exploded, and he and his companion fell more than 2 miles. The wrecked balloon acted as a parachute and both escaped unhurt. On Sept. 22, 1902, Count de la Vaullaz, accompanied by M. Castillon de Saint-Victor, M. Laignier, of the French navy, M. Hervé, the engineer whose patent "devisor" plays such a prominent part in the experiments, and Duhaut, the mechanic, started from Pau and landed again at les-Flots, near Montpellier, in his balloon Méditerranee II, in a second attempt to cross the Mediterranean. The balloon, which was provisioned for several days, was escorted by the tor
poc-destroyer Épée, and was attached to a floating buoy or "deviator," which kept it at a uniform height of 100 feet above the water and, to a certain extent, made it possible to regulate the direction of the flight. Some 200 pigeons were used to keep up communication with the shore. At ten o'clock on the morning of Sept. 22 the balloon was sighted by the captain of an Italian vessel 25 miles southeast of Palavas. Eventually, however, a contrary wind caused the attempt to be abandoned, and the balloon was brought to earth at Marseilles, between Cete and Agde.

At the meeting of the French Academy of Medicine held in Paris in August, 1902, Dr. Naugier asserted that he had made experiments demonstrating that a balloon ascent acts on the human system as a powerful tonic, causing such a multiplication of the red corpuscles of the blood that the condition persists for many days after an ascension. He further stated that five such excursions, each of 30 hours' duration, would be more beneficial to an anemic or a consumptive than a sojourn of three months in the mountains, and that he should request the municipal council to provide a large balloon capable of taking into the upper air daily 50 patients or children who are too poor to afford a change of climate.

AFGHANISTAN, a monarchy in central Asia, lying between Russian Turkestan and British India. The reigning Ameer is Habibullah Khan, born in 1872, who succeeded his father, Abdur Rahman Khan, in 1901. The area of the country is estimated at 215,400 square miles, the population at 4,000,000. The revenue is uncertain and fluctuating. Although the rule of Abdurrahman was more energetic and systematic than that of his predecessors, the hakims, or governors, and other officials practise extortion and peculation. The cultivators pay to the Government from a tenth to a third of the produce, according to the amount of irrigation. The Indian Government grants to the Ameer an annual subsidy of Rs 180,000. Abdurrahman is said to have founded the most beautiful and spacious of the modern European models, consisting of 37,000 infantry, 7,000 cavalry, and 350 guns. In the arsenal at Kabul are manufactured machine rifles, cartridges, and breech-loading field and horse-guns. The landing grounds and legumes are winter crops, and rice, millet, and corn are grown in summer. The land is cultivated by the owners or by tenants who pay rent in kind or who hold it on the métayer system. Agricultural laborers are free men who work for hire, or serfs. Asafetida is gathered in great quantities and exported to India. Castor-oil and madder are also exported, and preserved fruits, which are consumed largely in the country, as well as fresh fruits, in which Afghanistan abounds, including apples, pears, apricots, peaches, quinces, grapes, figs, plums, silk, sheepskin coats, fabrics of camel's hair and cashmere, rugs, and rosaries are manufactured. The trade with Bokhara and Russian territory is growing, while that with India and Persia shows no increase. Exports from India to Kabul in 1901 were valued at Rs 299,053, and imports into India from Kabul at Rs 187,530. The exports from British India to Candahar were Rs 214,316, and imports from Candahar into India Rs 353,281. The imports from India included in 1901, in addition to those above named, were £67,000 worth of skins and furs. The exports from Afghanistan to India are fruits and nuts, wool, silk, hides, spices, grain, ghi, asafetida and other drugs, vegetables, tobacco, cattle, and horses. The trade with Bokhara is about 4,000,000 rubles each way.

The internal peace of Afghanistan was threatened by a complication of intrigues in the months preceding the ceremonial installation of the Ameer Habibullah on March 29, 1902. Mohammed Ismail, son of Jashak Khan, who contested the throne with Abdurrahman, was suspected of designs on Afghan Turkestan in cooperation with other exiles in Russian territory. Habibullah's cordiality toward the Hadda Mullah, whose influence nearly embroiled Afghanistan and India, on the occasion of the frontier troubles in 1897, was one of the manifestations of a desire to conciliate the fanatical element and put forth prominently the spiritual attributes of Afghan sovereignty. Bibi Halima, the widow of the late Ameer and mother of Mohammed Umar Khan, was dissatisfied because Habibullah did not consult her in political affairs, as he was enjoined to do in his father's will. The new Ameer's younger brother, Nasrullah Khan, was at variance with him also. Mutinies occurred among troops that had not been paid. The Ameer appointed a council to assist him in the administration of the country. The council took place without serious disturbance. The Hadda Mullah went to Kabul, where a new code of laws was promulgated by the Ameer was submitted to him for revision. The Ameer gave permission for political refugees to return to Kabul, but withdrew it in deference to the opinion of Umar Khan, Nasrullah Khan, and others. The Ameer's Council of State was composed of leading members of the various tribes. Another step in the direction of organized government was the appointment of a person learned in Afghan customs and Moslem law to assist each of the provincial governors in the administration of civil and criminal justice. Cases of importance are referred to the Ameer and the Council of State at Kabul. The soldiers received their pay, which was in arrears since the death of the late Ameer. A plan for the reform and reorganization of the army was adopted. The pay of men in active service was increased, and at the same time the strength of the regular army was increased. Two points on routes leading from India into eastern Afghanistan were fortified and permanent garrisons established.

ALABAMA. (See under United States.)

ALASKA. (See under United States.)

ANGLICAN CHURCHES. Statistics. — The statement of the 11th report on the Church of England for the year ending Easter, 1901, reported for the Church of England Year Book shows that the contributions for general purposes and for parochial purposes exceeded those of the preceding year by about £7,000, and reached a total of £7,728,134. The preceding year had shown an increase of £800,000; but reference was made in the statement to circumstances that might have justified the expectation of some falling off. An increase of £48,000 in the contributions for the maintenance of primary schools was perhaps the most noteworthy item, and was in fact six times the total increase for the year; so that on the whole there had been some falling off in other items. The contributions to foreign missions was £262,056; the local contributions to the support of the clergy had been £282,684; and £168,797 had been raised by the central and diocesan societies for the assistance of the clergy and China. £605,040 had been contributed for general home missions. £505,040 for philanthropic work. and £1,170,390 for elementary education. As a whole, the gifts for
parochial purposes were about two and a half times the size of those for general purposes—or £5,342,394, as against £2,235,741. Other contributions to general charities from Church sources, of which the tables in the Year-Book take no notice, were, it is represented in the Church Times, well maintained. No account is made in the tables either of contributions, such as those to the Bible Society, the London City Mission, etc., in which non-conformists cooperate. Of the various items in the budget, gain was shown in 7 and loss in 12.

The income of the Bishop of London’s fund (to provide for the spiritual needs of the poorer parts) for the past year had amounted to £28,795, against £26,744 in the preceding twelve months. The bishop at the annual meeting in behalf of the fund named £50,000 a year as the sum required for the carrying out of the work undertaken by it.

The Annual Report of the Church Pastoral Aid Society for 1902 shows that during the year grants had been made in the total amount of £60,494 for 750 curates, 154 lay assistants, and 192 women workers in 985 parishes, containing 161,000 communicants. The amount of contributions called forth locally had steadily risen, except in a single year, during the past ten years from £30,568 in 1893 to £53,785 in 1898. The committee had been able to extend the work of the society in two directions during the year, namely, in the application of a gift of £10,000 for the relief of impoverished clergy, partly according to the discretion of the committee, partly according to the discretion of native clergy, 374; of native lay teachers, 7,927; of native Christian adherents, including catechumens, 290,225; of native communicants, 85,353; of baptisms, 20,617; of school children, 6,202, with 135,137 pupils; of hospital beds, 1,713; of in-patients, 13,871; of visits to out-patients, 786,642. Among the missionaries were 84 qualified doctors, 14 of whom were women.

The Centenary Volume of the society, published during the year, contains a history of its rise and progress together with particulars of its various missionary and educational work. The society received no attention from the bishops, its list of vice-presidents in 1889 included the names of 120 bishops. Thirty-seven of its missionaries, 3 of them Africans, were of its benevolent.

On May 6, Sir John Kennaway, Earl, M., P., presiding. The year’s receipts for general purposes amounted to £2,821,000, an increase of £12,500. While legacies and interest were less than in the previous year, there had been an increase of about £20,000 from voluntary contributions. Expenditures had been reduced by £2,000, and had really been £15,000 less than the estimate: and the deficit of £27,000 was less than had been feared. The society’s work could now be done on the present scale, without an increase of £50,000 a year in income, after making up the deficit. The Church in Japan had adopted a revision of its constitution, and had before it a revised translation of the Thirty-nine Articles; and its clergy and laymen sat in synod and voted with the English bishops and clergy. Native clergy preponderated in the synod of Ceylon, which was about to elect its own bishop, under the constitution granted in 1886—a power to be exercised for the first time by any modern Church body in which natives predominate. The Church in Ceylon corresponded with the Chinese bishops for 27 pastors and 2,400 teachers and elders, put up its own church buildings, and sent its own missionaries into foreign parts. In New Zealand and Canada, the society’s work among the Maoris and red Indians was being transferred to the colonial churches. Some of the most interesting cases among the 9,584 adult and 11,007 juvenile baptisms of the past year were the first four converts in the Eskimo mission at Cumberland Sound and the first pygmy from the great African forest. The following declaration of the position of the society was embodied in the report:

"The Church Missionary Society has its own distinct principles—the principles of the apostolic age of the English Reformation, of the evangelical revival—and on those principles it stands, and intends by the grace of God to stand. It maintains, and will maintain, its just independence—not independence of the Church or of its constituted authorities, but the reasonable independence of a body of loyal Churchmen banded together for the preaching of Christ in the world. At the same time, it declines to be turned aside by groundless and unworthy suspicions from the ancient practise of friendly intercourse with other societies, whether within the Church of England or within the wider range of Protestant Christendom; and it rejoices to see what its founders would have rejoiced to see, that we and other Anglican Church Societies have had the ‘blessing which the Lord gave’—the Church of England as a body, and its episcopate in particular, fostering the missionary enterprise."

The following approximate statistics of the missions for 1901-02 were presented to the meeting:

- Number of stations, 558;
- Of European missionaries, 1,935, including 421 ordained clergy, 148 laymen, and 1,374 lay workers;
- Of native clergy, 374;
- Of native lay teachers, 7,927;
- Of native Christian adherents, including catechumens, 290,225;
- Of native communicants, 85,353;
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**Society for the Propagation of the Gospel.**

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ANGLICAN CHURCHES.

Propagation of the Gospel in Foreign Parts ag-
gregated £206,796, being £258,063 more than
were received in 1900. The whole of the sum sub-
scribed to the Bicentenary fund, £84,027, would
be available for mission purposes, owing to the
abolition of the monopoly as it had come to
hand. The sums had been temporarily invested
or placed on deposit at once, and the entire ex-
penseces of the fund would have been met by the
expenses out of the dividends. The number of
ordained missionaries, including 11 bishops, on
the society's list, was 753; of whom 251 were in
Asia, 199 in Africa, 46 in Australia and the Pa-
cific, 166 in North America, 94 in the West In-
dies and Central and South America, and 37
chaplains in Europe. Of these, 127 were natives
laboring in Asia and 55 in Africa; and there were
also in the various missions about 3,000 lay teach-
ers, 3,200 students in the society's colleges, and
40,000 children in the mission schools in Asia and
Africa. It was represented in the general
introduction to the report that the bicentenary
commemoration had drawn many people to help
the society who had not hitherto done so.

A special meeting of the Standing Committee
of the Society was held on March 21, to consider
a request from the General Synod of the Epis-
copal Church in Ireland that it forbid the connec-
tion of any of its agents with party organiza-
tions, "as required by its own rule of law." The
reference in this last clause is to instructions is-
ued in 1706, which are bound up with the report
of each year's work. The Standing Committee
recommended to the diocesan bishops of Ireland
the words of a minute adopted in 1900, that the society had no
power over the opinions or convictions of the missionaries whom it maintained; that it did
not select the clergy whom it employed, and so long as they held the license of their respective
bishops, the society was bound not to remove them.
"The only alternative would be that the society should assume a spiritual jurisdiction, to
which it can justify no claim. The instructions given at the very foundation of the society to
the missionaries to which the resolution of the synod refers represent the conviction of the soci-
ety as to the ideal which all Christian people
should aim at. The Standing Committee assure
the synod that in its work both at home and
abroad, the society has worked hand in hand with
the Church; but the society for the Propaga-
tion of the Gospel is an independent body.

At the meeting of the union held Dec. 3,
1901, a resolution was adopted expressing the opinion that in view of the continuance in the
Church of practises and doctrines which are both
illegal and contrary to the spirit of the Reforma-
tion, "further legislation is urgently required in
order to secure a reasonable conformity to the
law of the Church and the realm."

An address issued by the Church Association
in July, in answer to an appeal in behalf of the
ritualists, bore the heading, "Now that the war
is over, the Protestant question must come first."
Representing that the union had already
issued a political pruning of party dis-
tinctions. They sincerely hope that it may en-
able the friends of the society in Ireland to con-
vince the Church that the Society for the Propa-
gation of the Gospel is not a party society. But
the Standing Committee assure the synod that they
will be most careful to bring under the not-
tice of missionaries placed on the list the instruc-
tions of the year 1706.

The Women's Mission Association for the
Promotion of Female Education among the Heathen,
in connection with the Society for the Propaga-
tion of the Gospel, had received £11,583, showing
an increase of £911. The balances had risen from
£4,904 to £5,073. A steadily growing de-
mand for missionaries, and especially for quali-
fied teachers, was observed in India. A large in-
crease of work was expected in the dioceses of
Bombay and Madras. In Burma the standard of
education was rising, and the demand for it in-
creasing. The association also appealed for offers
of service to meet the needs of Japan, South
Asia, and Madagascar.

The Melanesian Mission.—The work of the
Melanesian Mission had been carried on at the
time of its anniversary meeting in November,
1901, for fifty years with steady and growing suc-
cess, with the aid of sailing and steam vessels
plying from island to island. The general fund
for the past year had been the highest on rec-
ord, and the subscriptions to the fund for the
provision of a more suitable vessel, which was
greatly needed, had reached £13,000, a sum
which was, however, not all adequate. It was
shown that in the fifty years of its operation the
mission had worked a complete revolution in the
region. When Bishop Selwyn began his work
Melanesia was entirely heathen, whereas there
were now 12,000 baptized Christians in the is-
lands.

Voluntary Societies.—The object of the Na-
tional Protestant Church Union is defined in its
annual report for 1902 as being "to promote the
principles of the Reformation as set forth in the
Prayer-Book and Articles of the Church of Eng-
lard." The president is Mr. W. D. Crudace:
Prebendary Webb-Peploe is the chairman; and
among the vice-presidents are the Bishop of Dur-
ham, the Bishop of Sodor and Man, and Bishops
Peronne, Ingham, Marsden, and Royston. The
work of the union is largely educational in its
character, and as a part of it a steady growth
in the number of lectures and general meetings
and the number of the places of meeting per
year. The intention of the council is announced
to publish a History of the Church of England,
by the Rev. Charles Hole, and a reissue of Dr.
Vogan's True Doctrine of the Eucharist; and a
Manual of Christian Doctrine is in hand. A
number of recent appointments by his Majesty's
Government are cited as showing that the in-
creased activity of the Church Union has not been without effect in the selection of
men for ecclesiastical preferment.

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traditional which went to make the eucharist an occasional and exceptional service, it was not to be followed. Loyal English Churchmen were bound not to forego celebration because there might happen to be none to communicate with the priest. They knew that the desire for a greater unity now showing itself on all sides. As one step toward union the adoption of a single catechism by the non-conformist bodies was to be welcomed, and similar hopes were encouraged by signs among the members of the Established Church of Scotland. The Church of England was but two provinces of the Western Church, isolated, unhappily, by circumstances for which it was by no means solely responsible, but whose members could not consistently rely themselves of the obligations which the part owed to the whole. If the authorities of the Church would but acknowledge that the act of uniformity was dead and buried, and take on their own initiative such steps as the Church required, they would be far wiser than if they waited till Parliament was willing by a definite act to sanction their action. The number of enrolled associates of the union was now 12,463, 2,017 new and 3,048 having joined during the past year. Of these, 77 were clergy-men. Three American bishops had become members. Satisfaction was expressed in the annual report with the result of the Fulham Conference, "which can hardly fail to remove existing misconceptions as to the exercise of the sacrament of penance and to promote the cause of peace."

The Liberation Society.—At the annual meeting of the Council for the Liberation of Religion from the Patronage and Control of the State, May 7, the treasurer reported that the receipts for the year had been £4,813, and the expenditures £4,622. The report of the secretary mentioned as evidences of an awakening interest in the religious life of the English Church an increase in the number of meetings and lectures, and the preaching, at the instance of the Manchester and district branch of the society, of liberation sermons by 300 non-conformist ministers in the northwestern district. The action of the society with reference to the tithe rent-charge and the education bill was reviewed. The chairman, Principal Hutton, of Paisley, said in his address that they were not proposing terms with the state Church. They had been passing through a crisis in which new questions had divided them, but they knew their principles were sound and had still the permanent moral forces which fought for them. They must hold that the abolition of state churchism was one of the greatest of political reforms in the age of the Church to which they constantly pressed to recall themselves. Resolutions were passed in favor of the passage of the convoca-tional Bill and in support of the Government education bill. Lord Nelson, moving the adoption of the report, expressed the hope that when the education bill had passed, the animosity which had been aroused by the bill would pass away. He thought it would be a good thing if committees of Churchmen and dissenters could be formed to discuss the four bases of intercommunication suggested at the last Lambeth Conference. The Bishop of Truro, presiding, thought that when the educational controversy was over and the bill had passed, non-conformists would feel that they had raised a flag which was without a staff and had shown unnecessary heat. One thing that came out very sharply from the contest was that Churchmen had stood up boldly for parents' rights to choose the religious education of their child, and that if they threw over their apostolic succession, the speaker thought, they would weaken the Church of England very much indeed, and make it less easy for their non-conformist friends to unite with them. What they had to do was not to overthrow the apostolic succession, but to make it a greater reality. The council of the society was considering how it could carry out the resolutions passed at the last Lambeth Conference with reference to discussions between Churchmen and dissenters.

The Society of the Sacred Mission, of which the purpose is to promote the increase of candidates for the ministry and aid in their efficient training, "offers a free and thorough education and maintenance during training to all who will give themselves up wholly to the service of God and his Church, in holy orders or lay work, in foreign missions or at home." At its annual meeting in November, 1901, it had about 40 candidates, and 3 new members being received during the past year.
ANGLICAN CHURCHES.

Liverpool in September on a charge of holding antitrinitarian meetings calculated to cause a breach of the peace. Refusing to find sureties and give bonds to keep the peace, he was sentenced to imprisonment for three months. The incarcerated prelate demurred greatly among the antitrinitaries. Mr. Kensit, senior, sent petitions for his son's release to the Home Secretary and other members of the Government. He asserted that his son was not a notorious offender. Judge Sanders condemned his words as blasphemous and dangerous. In a memorial to the Home Secretary the Council of the Church Association characterized the imprisonment as a grave scandal and a menace to liberty of speech. In answer to a memorial signed by 100,000 persons, the Home Secretary said that the case was one in which he could not interfere. The Baptist Union, by resolution, asked for an investigation into the case, in which it affirmed there was reason to believe that there had been a grave miscarriage of justice. Mr. Kensit went to Liverpool to visit his son in prison, and a deputation was made in Birkenhead against the Weylifite preachers, in which he was hit upon the head with a chisel. Pneumonia supervened, from which he died, Oct. 8. His son was afterwards released by order of the Home Secretary, when he declared that he would take his father's place at the head of the movement he had organized. Steps have been taken to erect a memorial to Mr. Kensit as a "defender of Protestant truth."

Convocation of Canterbury.—The Convocation of Canterbury met in its first group of sessions for the year on Jan. 26. In the upper house the appointment was advised of a joint committee to consider the best methods of approaching the Jews resident in the kingdom, and whether any special spiritual provision should be made for Jewish Christians during the first years of their conversion. A resolution of the lower house protesting against a proposal to legalize marriage with a deceased wife's sister was adopted, with a request that the archbishop and bishops use all means at their disposal to prevent any measure with that object from being passed. The meeting adjourned until the 12th of February. In the meantime a special prayer in regard to the supply of candidates for holy orders was referred to the joint committee on special prayers and services. In the lower house the subject of the procedure of the confirmation of bishops was discussed. The following resolutions on the subject of ecclesiastical dilapidations were adopted: 1. That in the interest of the Church of England, and with a view to relieving the distress arising from the diminished income of the clergy at the present time, a general insurance fund to deal with dilapidations ought to be established. 2. That each incumbent who is liable should be required to contribute an annual payment to this fund upon some suitable basis. 3. That it is desirable that this annual payment should include a small sum to be lodged in the name of the incumbent as a guarantee fund against damage accruing through neglect or waste, to be returned with interest, if not required to the incumbent at the termination of his incumbency. The resolutions further advised that the central management of the proposed insurance fund be placed in the hands of the ecclesiastical archdiocesan, archdeaconal, or parochial repair fund established to assist the clergy, in case of necessity, in raising the contributions levied upon them. The opinion of the house was expressed that in any rearrangement of the position of voluntary schools, it was desirable that public aid given to them should be applicable to their general maintenance, without any allocation of funds to the support of secular as distinguished from religious training. Moreover, the archbishops and bishops were requested to take steps for the provision of a prayer for the supply of candidates for ordination.

In the House of Laymen the discussion on the subject of the lay franchise was continued from a previous group of sessions, and a resolution relative to the initial lay franchise was adopted, "that an equal number of parochial representatives of every ecclesiastical parish or district attached to an old or new parish church in the diocese (including the district remaining ecclesiastically attached to the old parish church of an ancient parish church which had been ecclesiastically subdivided) shall be elected by such of the persons of full age, resident in the ecclesiastical parish or district, as declare themselves in writing to be members of the Church of England and of no other religious body, and are not legally and actually excluded from full communion, and are of the male sex." Other resolutions relate to the details of the scheme, the election of representatives to the diocesan council, etc. In view of difficulties between this house and the House of Laymen of the Convocation of York with reference to the initial lay franchise, a joint session of the two houses was asked for. The "Convocations of the Clergy" bill, in the form in which it had been read a third time in the House of Lords, was approved, with the expression of a desire for its speedy enactment into a law.

At the meeting of Convocation May 1 both houses discussed the education bill and passed resolutions giving a general approval to it. Approval was given in the lower house in detail to the arrangements made at the confirmation of the Bishop-elect of Worcester, which, it was represented, were on the lines suggested in the second report of the Committees of Church and State on the Confirmation of Bishops. The resolutions appended to the report of the joint committee on the position of the laity were discussed, without preparing a special prayer. The resolutions declare that it is desirable that a national council should be formed fully representing the clergy and laity of the Church of England; that the definition of powers to be entrusted to the council in reference to legislation, of the qualifications of electors, and of the method of electing and summoning its members should be determined by a joint meeting of the members of the two convocations with the provincial houses of laymen, with a view to its receiving statutory authority: that this council should consist of 3 houses, the first that of bishops, the second that of representatives of the clergy, whether official or elected, and the third of elected communicant laymen; that the acceptance of the three houses, sitting together or separately, should be necessary in order to constitute an act of the body; and that nothing in the resolutions was intended to interfere with the position of the convocations as provincial synods of the clergy. The report stated that the committee had come to the conclusion that the study of the apostolic and primitive constitution of the Church as it is set forth in Holy Scripture; and that during the first three centuries showed clearly the coordinate action of clergy and laity as integral parts of the whole body of Christ, and it was added: "It appears to us that the creation of
a representative assembly in which clergy and laity should be coordinated under episcopal authority would be a wise reversal, not only to old Anglican tradition, but to those primitive Church principles which our national Church always desires to follow. We observe that such a course has been universally adopted by the sister and daughter churches of the Anglican communion. We observe also that the Established Church of Scotland, in which a powerful General Assembly, consisting of clergy and laity, has existed from the first years of the Reformation, shows that such an arrangement is perfectly compatible with establishment. Such an assembly in this country, working, as it must necessarily do, in harmony with the Crown and with Parliament, would, in our opinion, do much to promote that effective service to, and representation of, the religious life of the nation which it is the object of establishment to secure. Such an assembly would not stand alone. It would lead to the development of local organizations in our parishes and dioceses which would subserve the general object of making all members of the Church more conscious of their rights and duties and of the resolutions of the Committee on Clerical Poverty and Clerical Charities were adopted. They assert the importance of obtaining very general support for the Queen Victoria Clergy fund and the diocesan funds affiliated with it, and the desirability of introducing the custom of Easter offerings and collections for the benefit of the clergy into every parish; declare that no scheme for the elimination of the poverty of the clergy can be satisfactory that does not make provision for a considerable diminution in the number of poorly endowed benefices where the area and population are also small; advise the institution of diocesan boards of clergy and laity to promote the union of small benefices in suitable cases; and make other recommendations of measures intended to remedy the evils of clerical distress. A resolution was passed in the House of Laymen deprecating the tendency to pervert Sunday into a day of pleasure-seeking and idleness.

At the session of the Convocation in July the upper house discussed the report of the Committee on Clerical Poverty. This report embodied the position that this position was necessary, and offered some recommendations, among which were those for the institution of sustentation funds and for unions of benefices. In the report of the Committee the position of the laity in the councils of the Church was resumed. Resolutions were adopted urging Parliament to pass "an enabling act empowering the two convocations to reform themselves and to sit together"; that "it is desirable, without traversing in any way the historic position and rights of convocations, that a representative assembly of laymen, duly elected, and possessing statutory authority, shall be formed in each of the two provinces, and so associated with the convocations that in either province the archbishop shall summon the House of Laymen to consult and debate with the houses of Convocation, and that the two archbishops, acting together, shall, as occasion requires, gather all the houses of the provinces for a joint session as a national Convocation, in order to consider the powers and constitution of the contemplated national council and the education bill were subjects of discussion.

Convocation of York.—At a meeting of the House of Laymen of the Convocation of York, April 3, the resolution adopted in 1901 proposing that the lay franchise should be open to all rate-payers was reconsidered and rescinded from this step was intended to bring the action of the house into harmony with that of the House of Laymen of the Convocation of Canterbury. The house further expressed its cordial approval of the Government education bill, but urged the elimination of the permission clauses. Another resolution expressed general satisfaction with the licensing bill of Mr. Ritchie, without binding the house to agreement in every detail.

The houses of the Convocation of York met April 30 and May 1. Resolutions were passed giving general approval to the education bill. A resolution of the lower house having reference to the distress among the clergy suggested the institution in every diocese of an annual Clergy Sunday, on which collections should be made in aid of the various clerical charities, and recommending the stimulation and encouragement of local effort to make the net income of every beneficed clergyman not less than £200. Another resolution on the part of the Church to impress upon all Churchmen the perpetual obligation "to do their utmost, by prayer, word, and example, to promote the cause of peace by implanting the great principles of justice, charity, and mutual respect throughout the world"; and further expressing a strong sense of the responsibility which will rest upon the Church in this matter, was adopted.

Joint Meeting of the Two Convocations.—A joint meeting of the two convocations, including both Houses of Laymen, was held in the Church House, Westminster, in July. The subject of the lay franchise was discussed at length and the opinions of the body were expressed by resolution: "that the electors should be of full age and have been baptized and confirmed, and should declare in writing that they are bona fide members of the Church of England;" and that the representatives elected by them should in addition to these qualifications be communicants.

Report on the Position of the Laity.—The report of the Joint Committee on the Position of the Laity sketches historically the share of the laity in the councils of the Church, showing that their importance in ecclesiastical councils began to diminish after the Council of Nicaea until under the medieval papacy it was almost eliminated. In the East the emperor embodied, at least in theory, the functions of the laity, in the West the Pope absorbed these with those of the episcopate, though in remote regions, such, for instance, as England before the Conquest, the share of the laity still remained great. The Conquest introduced a change, separating the clergy from the laity, and the Reformation did nothing to restore to laymen that direct share in ecclesiastical matters which had once been theirs. The supremacy of the king was gradually transferred to Parliament, always an imperfect substitute, and most imperfect now that Parliament has ceased to consist wholly of Churchmen. Recent political changes have impaired the parochial organization of the Church and deprived the laity of the influence in the parish which they had in the middle ages, and of Laymen. In the late Reform the present position, then, is a disorganization not far removed from chaos. "The time has come for the creation of a repre-
sentative assembly which shall be coordinated under the prudential authority of the bishop. This would be a
wise reversion not only to old Anglican tradition, but to those primitive Church principles which our national Church always desires to follow.

The committee therefore present as their first resolution "that it is desirable that a national council should be formed, fully representing the clergy and laity of the Church of England; and that it might be
in the consecration of a bishop. The bishop-elect, however, on legal advice, declined to present himself for consecration pending the decision of the judges. In the argument on the application for a mandamus in the Court of King's Bench, Feb. 3, the Attorney-General undertook to show that the confirmation was a mere form, and was intended to be so; and that it might be dispensed with altogether, and had been. In fact, the elections by the cathedral chapters had been pronounced in an Irish statute of Elizabeth "colors, shadows, and pretenses of election, serving to no purpose, and seeming also derogatory and prejudicial to the King's prerogative royal." The statute had been repealed, but the fact had not; and the Attorney-General insisted that beyond the points of the validity of the election and the identity of the person elected, no objection of any kind could be entertained. It was urged on the side of the opponents of confirmation that even if it were shown that the vicar-general's court did not deal with contentious business, it would still be his duty, when the case became ripe, to consider the question of the election of a bishop. If the court refused to grant the mandamus in this case there would be no discretion in anybody to refuse to confirm and consecrate the royal nominees; he could answer the questions in the ordination service. He might even become a member in some other church, and still the archbishop would have no choice. The decision of the court of the Lord Chief Justice Alverstone, Feb. 10, denying the application. The view was sustained that the public citation of objections to the confirmation of a bishop is not a real proceeding. It was shown, in substance, that never since the statute of Henry VIII had there been any "practise" of hearing objections to the appointment of bishops on the ground of doctrine, and that for two hundred years before that date no such normal practise existed as the objections contended for. The court, however, expressly guarded itself against deciding that no objection could be raised, or to which the archbishop or vicar-general could decline to entertain. Thus, it could not be held that an objection involving a question of identity, as that the wrong man was put forward the whole time of the objection that involved a question of the genuineness of the documents produced should be considered. Thus it might be a good ground of objection that the bishop-elect had a right to appeal to the House of Lords, but the Council of the Church Association, after consideration, decided not to make it. The consecration of Dr. Gore as Bishop of Worcester took place Feb. 22, and his enthronement Feb. 24.

The Second Fulham Conference. An account was given in the Annual Cyclopaedia for 1900, page 25, of a meeting designated familiarly as a "Round Table Conference," which was called by the Bishop of London, Dr. Creighton, at the suggestion of the London Diocesan Conference, of representative men of both of the great parties into which the Church is divided, which met at Fulham Palace in October, 1900, and discussed the subject of The Doctrine of the Holy Communion and its Expression in Ritual. The suggestion of the same kind was made by the London Diocesan Conference in 1901 to Bishop Ingram of London, and the conference was called to meet at Ful-
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ham, Dec. 30 and 31, 1901, and Jan. 1, 1902. The subject presented to the consideration of the second conference was that of Confession and Absolution; and in his letter of invitation the bishop suggested that there be four sessions, at which the discussion might proceed on the following lines: 1. The meaning of our Lord's words (in St. John xx. 22, 23; St. Matthew xviii, 13), and their use in the ordinal as affecting the conception of the priesthood. 2. The practise of the Church (a) in primitive times; (b) in the middle ages. 3. The meaning of the Anglican formulas and the limits of doctrine and practise to which they allow. 4. Practical considerations—(a) the treatment of penitents; (b) the special training of the minister. The members of the conference were selected by the bishop, according to his own declaration, "with the greatest care, in order that all schools of thought in the Church should be adequately represented." They included Lord Halifax, as the representative of extreme High Churchmanship; Mr. R. M. Benson; Principal V. S. S. Coles, of the Pusey House at Oxford; Professor Moberly, of Christ Church, Oxford; Mr. L. M. Posthumous; Canon Body, Dr. Mason, and Professor Swete, holding an independent position; Dr. Childe; Principal T. W. Drury, of Ridley Hall; Dr. Gee, Principal of College; Mr. Thomas Milne, and Dr. Stillingfleet; Canon Frederick Smith and the Rev. Dr. Wace; Canon Lyttleton; and Dr. Strong, Dean of Christ Church. The Rev. Dr. Wace, who was also chairman of the first session, was not present at the opening of the conference, and prepared the report, which was published under the authority of the bishop. The general results of the conference are comprehensively stated in the summary of conclusions verbally communicated by the chairman to the bishop at the close of the last session as they are given by the bishop in the introduction to the volume embodying the report as follows:

"On the bishop entering, the chairman reported to his lordship the general results of the conference. He stated that a practical agreement had been reached on some important points, but that grave divergence remained on others. With respect to the first subject proposed to the conference, he said, it was generally agreed that it would be well to retain our Lord's words in St. John's gospel, 'Whosoever sins ye remit, they are remitted unto them, and whosoever sins ye retain they are retained,' are not to be employed any more as the formula for absolution by the clergy, but as a commission to the whole Church, and as conveying a summary of the message with which it is charged. It is, therefore, for the Church as a whole to discharge the commission, which she does by the ministration of God's Word and sacraments, and by godly discipline. But the members of the conference agreed that the discipline of private confession and absolution can not be shown to have existed for some centuries after the foundation of the Church. It grew, in fact, out of the gradual principle, perhaps about the fifth century, of the 'godly discipline' of public penance, referred to in our communion service as existing in the primitive Church. In view of the meaning which the conference agreed was to be assigned to the words of our Lord in St. John, the formula of ordination in our ordinal could not be regarded as in itself inculcating the duty of private confession, and the fifth century, of the 'godly discipline' of public penance, referred to in our communion service as existing in the primitive Church. In view of the meaning which the conference agreed was to be assigned to the words of our Lord, the conference was not agreed as to the extent to which they encouraged it. On the practical question there was a deep divergence of opinion in the conference, some members holding that the practise of confession and absolution ought to be encouraged, as of great value for the spiritual and moral life of men and women, while others were deeply convinced that its general encouragement was most undesirable, that it should be treated as entirely exceptional, and that the highest form of Christian life and faith would dispense with it and discourage it."

Incense and Reservation in the Diocese of London.—The Bishop of London explained his policy in regard to incense and the reservation of the sacrament in an address to his diocesan conference in May. On taking up his work he had addressed a letter to 40 churches the ritual of which had been open to question, and had received ready answers from all, showing how long incense had been used in them (from five to forty years), and affirming that in all of them the laity were in accord with the clergy. He next wrote to 39 churches the usages of which seemed counter to the Lambeth opinion. He recognized the claim to special consideration, saying that "it would be impossible to define uniform limits within which, in exceptional cases, these usages might be permitted, but had found it impossible. He said also that if he did not propose any direct steps against the continuance of a modified use of incense and manner of reservation, such as had already been agreed upon in private conversation, but as bishop he would be prepared to any service when incense was ceremonially used, nor would he visit any church in which the limits privately agreed upon were transgressed. He thought the true policy was not to disturb existing arrangements. There were now only 8 churches which he could not visit officially because the sacrament was reserved in the open church and there was an occurrence of incense on Sunday. All the others had conformed to his wishes entirely. A working method had been attained on this difficult question, and he intended to pursue the same policy during the coming year.

The Church Congress.—The Church Congress met at Northampton, Oct. 7. The regular meeting was preceded by a session for young men which was addressed by the Archdeacon of Manchester, the president of the Girls' Friendly Society, and others. The Bishop of Peterborough was being still laid up in hospital, and the president, the Bishop of Leicester presided and delivered the opening address. In the discussion of the first subject, Home Reunion, Bishop Boyd Carpenter, of Ripon, considering the three suggested methods of surrender of all the other churches to one confederation, and reorganization as all practicable, pleaded as the only remaining alternative for cooperation between the churches for their common end. Prof. Collins affirmed that reunion could come only on the basis of the apostolic succession. Canon Hensley Henson, whose sermons on Communion and Co-operation with Nonconformists and addresses on the same subject, had attracted much attention and excited comment, maintained that in order to secure anything like practical reunion the non-episcopal churches must be frankly acknowledged. Earl Nelson defended episcopacy as a historic heirloom to be handed down to the children of the Church. Dr. Coops of Perth (Australia) and Victoria (Hong Kong) and others showed how reunion had been practically secured in the colonies and on the mission field through interdenominational recog-
nition. Other subjects treated in the papers read and the discussion were: The Duty of Worship, its Ideal, and the Adequacy of the Prayer-Book Services; The Miracles and the Supernatural Character of the Gospels (as to which Prov. Swete spoke upon the Miraculous Conception, the Incarnation, and the Resurrection, and Prof. Sanday sought for a definition of a miracle); The Sermon on the Mount in its Application to Modern Life; The Maintenance of Religion in the Home under the Changed Conditions of Modern Life; The Position and Responsibility of the Clergy and Laity in Relation to Modern Criticism and its Influence on Theology, both as Students and as Teachers; Religious Work among Sailors; The Direction of Individuals in Spiritual Matters (in which the subject of confession was brought up); The Observance of Sunday (at a women's meeting); Grievances arising out of the Exercise of Patronage, the Alteration of the Mode of Conducting Services by the Incumbent, and the Continuance in Office of an Inefficient Incumbent; The Church and Working Men; Prayer, its Obligations, its Conditions, and its Results; The Duty of the Church in regard to Education, in the discussion of which the Bishop of Hereford advocated the establishment of equitable and friendly relations with nonconformists, and insisted as fundamental principles in education that fair dealing as between citizens of different denominations required an efficient school within reach of each child, managed by a committee of which the members were appointed or by Board, and the religious denomination to which the parents belong; that the expenditure of public money be under public control; and that small schools be not needlessly multiplied, that being contrary to efficiency and economy; and laid down a scheme conforming to those principles. The Bishop of Coventry defended the attitude of the Church in opposing undenominational management of the schools, and was followed by other speakers to a like effect. Earl Spencer criticized the provisions of the Government's education bill, which did not give genuine public control over the expenditure of public money, and laid emphasis on the strong feeling which prevailed in the country upon the subject. The Causes and Recommendations for the Supply of Candidates for Holy Orders from Oxford and Cambridge were the subject of papers by the rector of Exeter College, Canon Hicks of Manchester, the Rev. R. B. Garnett, and Canon W. Johnstone. The subject of Church reform was considered in papers on (a) the lay franchise, qualifications of electors and elected; (b) houses of laymen—their constitution and work; and (c) reformed Convocation and a national synod.

The Irish Synod.—The financial reports made at the meeting of the synod of the Episcopal Church in Ireland showed that a considerable decrease had taken place in the revenue of the Church from voluntary sources. A diminished income was feared from mortgages and land, but the dioceses were now in much better position to meet such reductions. They had already entered into possession of the profits of communications to the extent of £800,000, with £200,000 more to accrue in a not distant future. In respect to the question of a Roman Catholic university, the Primate observed that Ireland was not large enough for two really great institutions of learning, and that the correspondents of the synod subscribed a petition for the establishment of a university of Ireland.

In the synod, the duty of the Church in relation to religious instruction in the intermediate schools, and to the general conduct of the state system of primary education, was discussed. The archbishop and bishops were requested to enter into communication with the Board of Trinity College with reference to the position of the Church of Ireland toward the divinity school.

A declaration by the archbishop and bishops was issued to the synod reminding members of the Church of the increasing misuse of the term Catholic to describe those only who acknowledge the supremacy of the Pope. The matter was declared to be "not a mere question of words or names. If we now surrender our title of membership in the Catholic Church we give up an important point in that faith which was once for all delivered to the saints."

The General Synod of Canada.—The General Synod of the Church of England in Canada met in Montreal, Sept. 3. The Primate, Archbishop Machray, being ill, Archbishop Bond, of Montreal presided. Canon Matheson, of Winnipeg, was elected prolocutor of the lower house. The business of the Synod was introduced by the passage of a canon organizing the mission work of the Church under a board for the whole Dominion. The Ecclesiastical Prov. of the Province of Canada was decided at its session in September, 1901, to merge its Mission Board into that of the General Synod if it would take over the responsibilities of the provincial board. The organization of a denominational board was effected, and the Rev. N. L. Tucker, of Vancouver, British Columbia, was appointed its general secretary. A canon was passed by the House of Bishops absolutely barring any divorced person from remarriage during the lifetime of a former partner, but was defeated by the adverse vote of the laity in the lower house, although the clergy of that house were overwhelmingly in favor of it. Triennial meetings of the synod were decided upon, with double the former diocesan representation, making the largest representation of any diocese eight of each order under public control; for the appointment of a committee to consider the question of a change of the name of the church—the name Church of England in Canada being considered too insufficiently descriptive. After some discussion, the consideration of the question was postponed. Committees were appointed to prepare drafts of the extra prayers recommended by the synod, conditions of the Church in Canada, to be submitted to the next meeting of the synod for adoption as an appendix to the Prayer-Book. No alterations in the body of the Prayer-Book was contemplated. Authority was given permitting the optional use of the Revised Version of the Bible at the services of the Church. A minute was adopted, to be brought before all the synods and convocations of churches in the communion, with a view to the discussion of it in the Pan-Anglican Conference in 1907, contemplating the extension of the diocesan and the making of it a sufficient order. In the bishop's pastoral as read to the conference all the members were called upon to increase their interest in missions, in the sanctity of the Lord's Day, in the study of the Bible, in family worship, and in Sunday-schools.

The Synod in Japan.—The seventh General Synod of the " Holy Catholic Church in Japan," (the Nippon Rikyū), met at Hiroshima April 10 to 15. A course of procedure introduced by the English and American bishops for the election of a Japanese bishop was almost
Evidences are discovered in increasing number of the former existence of a dense population considerably advanced in civilization in Arizona. They are found in the ruins of large buildings and of cities, some of which are estimated to have had 100,000 inhabitants, and in the remains of irrigation works. Traces of large irrigation canals are described as being numerous in certain districts. One 32 miles north of Phoenix, supplied from the Rio Verde, passes for nearly 4 miles through an artificial gorge cut to the depth of 100 feet in the rock; it then divides into 4 branches, 1 of which is more than 40 miles long, and all together would measure 120 miles in length. This system supplied a region of about 1,600 square miles. These and other similar works are said to have been constructed with great engineering skill. The remains of the walls of one of the cities, called Los Muertos, may be traced for many miles; and an immense quantity of buried bone dust is one of the remarkable features of the site. The ruins supposed to be of another large city, on the other side of Salt river, cover an area of 28 miles by 12; and the remains of the structures, of stone and mortar, are fast marked by the holes in which the timbers were inserted. Marks have been found of volcanic eruptions and of other changes that have occurred since these cities were inhabited and the irrigation canals were constructed, and the period is supposed to have long preceded that of the cliff-dwellers.

Dr. Henry M. Baum, president of the Records of the Past Society, of Washington, D.C., has affirmed that during a two months' tour among the ruins of the cliff-dwellers he hardly averaged 10 miles in any one of the cliff-dwelling districts without coming across some of their habitations, and that he saw enough dwellings to accommodate 2,000,000 people. He expresses himself convinced that the cliff-dwellers and the mesa and valley dwellers were all of a contemporaneous civilization which dates earlier than the heavy lava overflow in the southwest. "The pottery, stone implements, and skulls found in these three classes of sites indicate that the Indians lived in the area during the whole length of the postglacial period. It is quite evident that the vast civilization of the entire country was extinguished by a flow of lava," of which the evidences are abundant throughout the entire region.

In the exploration of 20 mounds along the shores of Perdido, Pensacola, and Choctawhatchee Bays and Santa Rosa Sound, on the northwest coast of Florida, due to Queenstown to receive instruction under Father Fuller, of the Cowley Brotherhood. Ten of the students were confirmed in November, 1901: 2 had been previously confirmed, and 2 had withdrawn. The 12 confirmed students early in 1902 began the work of preparing their brethren for confirmation, each of them being given a provisional catechist's certificate.

The West Indian Church Mission to South Africa has been maintained by Cadrington College, Barbados, since 1835, and is manned entirely by men of color, partly by natives and partly by men sent out from the West Indies, who have been trained at Cadrington College. At a meeting held in London in its behalf, Bishop Ingraham, late of Sierra Leone, gave an account of its work in the Rio Pongo, and of the interest taken in it by the people of the West Indies.

ARCHAEOLOGY. United States.—A professorship for the study of American antiquity, with a competency of 6,000 francs for its maintenance, has been founded in the College of France by the Duke of Loubat.
was pronounced absurd, and it was maintained that the bones were marked by incrustations of the hardness betokening antiquity, and that the character of the surrounding deposits pointed in the same direction. The author believed that the discovery was genuine and the bones were those of a Pleistocene man, and argued that they had been covered at one time by an accumulation of at least 35 feet of river loess. In a paper by Dr. Alex Hrdina, who had examined the skeleton, the bones were described as quite hard and porous, not sufficiently chalky to mark a blackboard, fully preserving their structure, and showing no trace of fossilization. Considering anthropologically, all the parts of the skeleton, and the skull in particular, approached closely in every character of importance the average skeleton of the present Middle States Indian.

Mexico.—Early in the year a most important and interesting discovery was made in the heart of the Mexican capital. It consisted of the unearthing of a large temple and many idols, only two squares from the great central plaza, or what is called the Zocolo. The temple proved to be the Aztec house of many gods and seems to have been loudly on a map projected by the Mexican archæologist Señor Batres, representing the ancient city of Tenochtitlan, or Mexico, as it existed when first seen by the Spaniards in 1519. This map shows the city as an island intersected with canals running nearly at right angles, corresponding to the present streets of the city. After great research Señor Batres succeeded in locating to his own satisfaction the public buildings, palaces, and temples of the Montezumas on this map, in each case giving his authority for so doing. The great temple, or teocalli, on the top of the pyramid of which the Mexicans sacrificed their thousands of victims to the war-god, is shown nearly in the center of the island city representing Tenochtitlan, the site of which at the present day is occupied by the great cathedral and plaza. Back of the great temple Batres located a much smaller one, which he said was called Coateocalli, meaning in the language of the Aztecs "the house of many gods." He gave as his authority for the existence of this temple Father Duran, who wrote that the palace of the Aztecs was built upon its site. Known record was left of the existence of this temple, but by searching through the municipal archives, a reference to an ordinance regarding the supply of water, under date of Oct. 27, 1710, in which reference was made to the property owned by the Aztecs family on the corner of Relox and Cordobanes Streets, and consequently he there located his temple of the many gods. As the corner was occupied by a fine old building, it was not supposed that any trace of the old temple could be found, even if Batres were correct in his location of it.

Last winter the work of renovating, or practically rebuilding, the edifice occupying the corner was undertaken for the purpose of furnishing suitable quarters for the offices of the Department of Justice. Capt. Diaz, son of President Diaz, had charge of the work, and it is due chiefly to him that the discoveries were made. While his workmen were leveling the patio, or central courtyard of the edifice, preparatory to putting down a paving cement, they came in contact with some solid stone work, which proved to be a flight of stone steps leading down below the surface. Diaz, appearing just in time, ordered the men to stop work with the steps, cautioning them to use their tools carefully. The trench was opened the entire length of the patio, and at the farther end, scarcely 2 feet below what had been the surface of the patio, the men came upon what appeared to be a round, smooth rock, which might have been taken for an ordinary boulder. This rock proved to be a sculptured monolith weighing several tons, representing a tiger recumbent, or an ocelot ready to spring. Further excavating brought to light another great rock sculptured to represent a serpent's head, which corresponded with two others previously discovered, and which it is said formed the corner pieces of the wall that surrounded the great teocalli, within which dwelt 7,000 Aztec priests.

After these two huge monoliths were removed from the trench, the excavating was continued till the base of the steps was reached, 13 feet below the level of the present city, where they rested on a solid foundation which, being the base of the temple, is without question the level of the former city. This proves that the present city of Mexico is 13 feet above the city of the Aztecs that was destroyed by the Spaniards.

Near the foot of the temple many small objects were found, such as idols, remains of idols, incense guns, spears, etc., and it is claimed that they had been thrown down from the temple and left there by the Spanish iconoclasts. These were all carefully cleaned and preserved for the study of Señor Batres, after which they will be placed in the National Museum of Mexico. The stumps of two trees that evidently had grown from crevices in the stones near the foot of the temple show that they were allowed to remain in ruins after its destruction several years, otherwise the trees would not have grown there. Then came the final covering up of the temple with the trees, and the building of the edifice above at its present level.

The weight of the tiger that was found is 4 tons, and it measures 2 meters 30 centimeters long, 1 meter 5 centimeters wide, and 24 centimeters in height. Its mouth is open, showing huge teeth and a part of its tongue. Its great round eyes add to its ferocious look. It is well modeled, with its tail properly coiled round it on one side, as the animal is often seen in nature. On each side of the head and neck is a mane resembling somewhat the pendant part of the head-dress on the Egyptian Sphinx. On its under side are vestiges of paint, showing that the animal was originally painted with red and yellow in spots, to carry out the imitation of the American tiger more perfectly. Cut in its back is a cylindrical cavity about 18 inches in diameter and 5 inches deep. The sides and bottom of this cavity are sculptured with representations of Aztec figures or warriors parallel with the steps, and the serpent's head represents the reptile with its mouth open and its upper lip rolled up over
its forehead, disclosing the upper jaw with great husks projecting down over the under lip. It is said that there were four of these heads, one in each corner of the great wall around the teocalli, and the design corresponds to similar heads graven on the Aztec calendar stone. On the under surface of the heads Señor Batres thinks he has deciphered a hieroglyph which he calls teocalli, the date of the foundation of the great teocalli.

Among the other relics unearthed was a curious little idol cut out of a piece of volcanic rock, about 10 inches in height. The workmanship is rather crude, but decidedly interesting, representing a head with scarcely any body, intended evidently to be in a sitting posture with folded arms across the chest. The incense gum which was found resembled pieces of bone, but upon being carefully cleaned of the earth in which it had been buried all these centuries, it burned upon the application of a lighted match and gave off the proper perfume. Several large stones are sculptured to represent skulls or death's heads. They were fashioned with long wedge-shaped projections at the back, evidently for the purpose of holding them in place in some form of a skull-cap, the decorative part of which they formed. The work was rather rudely done, and a coat of white paint, still preserved on some of them, added to their horrible aspect. An interesting relic was a foot of a colossal statue in baked clay. The piece showed the toes perfectly modeled, with the edge of the sandal beneath and the knots of the thongs holding it over the instep of the foot, as worn at the present day by the Mexican Indians. Other smaller pieces of this statue were found, such as a piece of the knee showing a bit of the ornamented dress; and in handling them one could easily imagine the great war-chief in full regalia as he of Mexico because the Spaniards did not rebuild upon the foundations of the city they destroyed with the material at hand after the destruction, as would be supposed, but brought material from elsewhere and built upon the ruins. Cortez compared the city, as he first saw it with its canals and little islands, with Venice. When he retook the city after he had been driven out the destruction took place. It may be that the Spaniards had no intention of rebuilding the city after the heroic defense made by the Aztecs, in which they left their countless dead and dying stern about to breed pestilence in the air. The great temples and massive palaces were destroyed by the victors, after which Cortez withdrew to Coyocan on the mainland. Later he built his palace at Cuernavaca, which still exists, and while his lieutenants were subjugating the surrounding districts he devoted much time to filling portions of the land granted him, where it is said he planted the first sugar-cane brought to the American continent.

The evidence is to the effect that the ruined city of Tenochtitlan was abandoned to the survivors of its terrible conquest, who stalked about the ruins, eking out an existence the best way they could for many years before the reconstruction was begun. A building is shown on the stumps of the two trees unearthed at the base of the temple. The Franciscans built a little mission church where the cathedral is to-day, and it is known that the church was not begun on this site till a century later.

In the year Prof. Marshall H. Saville, of the American Museum of Natural History, completed the four years of explorations in Southern Mexico planned by the museum, the funds for which were supplied by the Duke of Loubat. The first two seasons of these years were spent in explorations among the famous ruins of Mitla, where Mr. Saville made important discoveries and surveys. The last two seasons' work were devoted to explorations in the State of Oaxaca. Early in the year Prof. Saville went to Mexico City, where he fitted out this last expedition, assisted by the Government archeologist, Señor Batres, an arrangement having been made with the Mexican Government by which Prof. Saville is allowed to retain a certain number of his finds. The expedition fixed its headquarters at Oaxaca, which is near the extensive remains of Xoxocotlan and Cuilapam, centers of culture of the ancient Zapotecans, a powerful Indian tribe who had developed a high state of civilization, but differing in many important respects from that of the Aztecs of the valley of Mexico, and the Mayas of Yucatan. Three months were spent in making the excavations and studies, during which huge burial mounds were opened, disclosing the tombs of the ancient inhabitants. The tombs were found in a good state of preservation, some with sculptured lintels and doors closed with huge stone slabs, and long drains for the purpose of drawing off water that might accumulate in them. Within were found noteworthy objects of great archeological value, which afford a vivid glimpse of the culture of the ancient and little known people.

Not far from the places where Prof. Saville carried on his explorations is a range of hills on which, at an elevation of about 7,000 feet above the sea, are the remains of a great fortified city whose builders are lost to history, to which the name of Monte Alban has been given. It is thought that this may have been the capital of the old Zapotecan Empire. The entire section of the country about is thickly dotted with
mounds indicating that at one time the country was densely populated by an industrious people. The mounds vary in height from 6 to 75 feet, some of them being in the form of a pyramid, while others are rectangular, and a few circular. Many have been plowed over, and thus their original outlines are destroyed. Statues appear buried in many places and the plows too have wrought havoc and destruction among many of them.

A peculiar feature of the tombs were the cemented floors, in some instances these being one above the other, and indications of a structure on top of the whole. In some of them a flight of stone steps led upward to the platform or floor above. The tombs were of stone neatly dressed, covered with stucco, which had been painted red. The lintels over the entrances consisted of a stone slab, the outer part also painted red. Above the lintel were stucco decorations, sculptures, and hieroglyphics, and sometimes funeral urns of terra-cotta were found. One of which Prof. Saville found in front of a tomb in a large mound in the excavations of the ruins at Cuitlapam, and was allowed to bring away. It was in pieces, which have been carefully put together, and is now in the Museum of Natural History, New York. In one of the explorations made by carrying a trench through the entire mound a tomb was found with the characteristic cemented floors and adobe construction of the other mounds, with a door sealed with large stone slabs. The facade of the front wall was in the form of a frame in which were five terra-cotta funeral urns. One in the center had a death's head on each side of it, made of stucco. The inside of the tomb was covered with food vessels, incense burners, and the remains of skeletons. Niches in each side of the walls also contained human remains. All the bones and skulls were painted red. There were several detached heads on the floor, which had been cut off. The walls of the chamber had been covered with plaster, but in the lapse of the time since they were built, probably on account of earthquakes, too, the greater part had fallen off. The plaster had been decorated with paintings in various colors, which had not altogether lost their brightness, although only traces remained. Over these bright-colored decorations a thin coat of stucco had been laid, upon which in black outlines was painted a series of human figures in the costume of the ancient people. One of the most important features in this and many of the other tombs was the hieroglyphic inscriptions found on the stone door lintel and wall chambers in form of writing entirely different from any here-tofore found in Mexico, and the first ever found in Zapotecan territory.

At Cuitlapam, 7 miles southwest of Oaxaca, 7 large chambers and a like number of small stone graves were uncovered. The excavations of the mounds were especially striking on account of the jadeite ornaments and other votive offerings found. They embraced beautifully carved breast ornaments, necklaces, beads, earrings, miniature idols, and various symbolic figures. Also fragments of mosaic work were found, the most interesting of which are two small circular mirrors made of bits of highly polished hematite cemented to thin disks of pottery. A significant point brought out by these discoveries is the fact that they fully confirm the writings of the old Spanish historians who have described the strange and elaborate burial customs of the Zapotecs, and also that the great underground tombs were used as ossuaries, or places reserved only for the deposit of the bones of the dead, and not for burial. After a certain lapse of time when the flesh had decayed, the bones and heads were painted red, and with elaborate ceremony they were placed in the tombs with food and incense. One problem is definitely settled as to the character of the mounds; the rectangular ones were found to be burial places and contained the most important tombs, but the pyramidal ones were temple structures.

While Prof. Saville was carrying on his excavations and explorations among the ruins of Xoxocotlan and Cuitlapam, Señor Batres went to the ruins on Monte Alban. These have been known to exist many years and have been visited by American and foreign scientists, but Señor Batres through his government position was able to make many new and most important discoveries. Monte Alban rises to a height of about 1,200 feet above the valley of Oaxaca where the other remains are found. Its sides and top have been cultivated by the natives for years. A great central courtyard embracing many acres between quadrangular mounds, which, besides containing temples, may have served for defense, is used as a corn-field. The mounds were arranged in a systematic order around this great court, and Señor Batres spent much time superintending the work of clearing the mounds of the brush and trees that covered them, employing many Indians from the surrounding towns. At the base of a great mound where excavations had been previously made by other explorers, including Prof. Saville, he rescued sculptured images the existence of which was known at three of the corners, and by their location discovered one at the fourth corner at the base. An important discovery was made in one of four pyramidal mounds, the remains of which stand in a row down the middle of the great courtyard, which is now turned into an Indian corn-field. The first object encountered was a sculptured, rectangular column of porphyry, 4 meters in height, 200 centimeters across the face, and 40 centimeters across the sides. On the face of this monolith
is an elaborate figure with a death's-head, evidently the portrait of a dead monarch. On one side are figures supposed to be two priests, with several rows of hieroglyphs, and on the other side a single priest with more hieroglyphs. The back is covered with hieroglyphs. But the greatest discovery was the find of a pot of jade objects in the mound. The jade resembles Burmese jade, and has never yet been found on this continent, while the jar containing the jade is of evident Maya origin. Pieces of similar jade have been found in other parts of Mexico, and they have been regarded by many as evidence of the former communication of the aboriginal races of Mexico with the Chinese, but scientists still believe that jade may yet be found in its native state somewhere in Mexico. The specimens found at Monte Alban are beautiful in color, elaborately carved, and highly polished. One piece is about as large as the palm of the hand, of a rich deep blue, graven to represent a human face, said to resemble that of a Chinese.

During the work of clearing and in some minor excavating, many great slabs of stone with carving upon them were removed. Some represented men, some animals, and some were covered with hieroglyphs. The slabs usually covered the tombs, and one represents the figure of a monarch, sitting upon a throne and wearing a royal headdress, sitting on some high place with the sign of speech extending from the mouth, with a row of hieroglyphs following. The stone is 3 meters in length and 2 meters in width.

It is the opinion of Señor Batten that the ruined city was the sacred city of the people who built it. The area cleared is 3 kilometers in length by half a kilometer in width, and mounds of less importance cover the surrounding mountains, but there have not yet been touched. These so far uncovered appear to be the bases of the great structures that surrounded them, and the remains of these structures or temples have been found on some of them. Excavations and explorations of these remarkable ruins are to be continued during the season of 1903.

South America.—The remains of the Calchaqui, a South American Indian race with characteristics much like those of the Northern Pueblo Indians, were examined and described by the Spanish in the sixteenth century. They had the object of exploration by Dr. Juan B. Ambrosetti. Their monuments are found over a territory in the Argentine Republic stretching 900 miles from north to south, and about 200 miles from east to west. Their houses, constructed like those the remains of which are found in Colorado and Arizona, were built in the valleys and on the mountains to a great height. Several of their villages have been explored by Dr. Ambrosetti, who has recovered from them a large number of articles of various kinds in stone, copper, bronze, turquoise, gold, and silver.

England.—The excavations at Silchester on the site of a large Romano-British city which has been identified with the Calleva or Calleva Atrebatum of the Antonine Itinerary, have been carried on continuously, by the aid of the Silchester Excavation Fund, since 1886. The area of 100 acres, enclosed by the remains of the Roman wall, nearly 2 miles in circumference, has been explored steadily and systematically till only a fractional part remains, and the foundations of the houses and public buildings have been traced more and more fully and with more precision from year to year. The new information gained each year has been largely in extension and addition to that already obtained, and the work has been little marked by sensational novelties of discovery. An area of two acres in the northern half of the town was examined in 1901. One of the houses had been enlarged after it was built to nearly double its former size, and presented two features that were specially remarked upon. One was the foundation of an almost perfectly circular room, and the other was the evidence that the house was half-timbered. Wattle work and plaster had been combined, and large pieces showed the routs in the plaster formerly traversed by the osiers or small branches which held its substance together. The work resembled that which has been found in neighboring houses, and has perhaps been traditionally followed from the days of the city's prosperity to the present. This half-timber work—familiar in such medieval cities as Brunsewick and Hildesheim—seems to have been widely prevalent; and remains have been found of Germano-Roman work—clay filling in a half-timber construction—on the Danube which presents a likeness to what has been found at Silchester. In a long room in one of the houses were a number of large jars; another room in an old hut this room were also masses of bones of fowls, pheasants, and other birds. It is not easy to conjecture the height of these houses. The walls were about 10 inches thick and mostly of flint and rubble, and being of such material can not have been very lofty.

The recent architectural discoveries at Stonehenge were described in a paper on that subject read to the members of the Royal Institute, Jan. 20, by Mr. Detmar Blow, who with Dr. Gowland superintended the excavations which were made in October, 1901, for Sir E. Antrobus, owner of the estate. The author pointed out that the great monolith called the leaning stone was the largest in England, Cleopatra's Needle excepted. It was one of the pillars of the highest trilithon, and stood behind the altar-stone, near which it leaned at an angle of 65 degrees. Half-way up it had a fracture one-half across it, and the weight of stone above this was a dangerous strain upon it. It had now been brought to a vertical position. One Roman coin and one George IIII penny were found quite near the surface. Nails by the Spanish in the sixteenth century, and by the Americans in 1886, 1887, and 1888, have been driven into the stone and bluestone of which Stonehenge was built and discovered. The flints found were used for the softer sarsens and bluestones, and the handhammers and mallets used to break them, the deduction had been made that the building belonged to the Paleolithic period. All authorities agreed that it was the work of a highly civilized people. The construction was one of a stone development, and the surface of the stone was finished much like that of granite. The design of the pillars was, in Mr. Blow's opinion, evolved from the shapes of the flint instruments used by the workman, to which his hand had grown accustomed. Each pillar had a bold entasis in its elevation, and in its plan foreshadowed the column. With the aid of illustrations the author described the method by which the leaning stone had been raised in the work of restoration and the setting process by which the implements, etc., had been handled. The stone had generally been supposed to be of the bronze age till these implements were discovered, and this was believed to be the only occasion on which the implements of man were of service to the stone building where they were used. In the discussion of the paper, Sir Norman Lockyer remarked that the conclusion was justified from
the evidence obtained that the sarsen stones were erected in the Paleolithic times—that was to say, before the age of bronze or, at all events, before bronze had been used for any ordinary kind of work in that part of England. Before the excavations were begun in 1886, C. F. Petrie and J. E. S. Thompson had been occupying themselves with Stonehenge from a slightly different point of view. They had been very anxious to determine its age, and it had been found impossible, to get certain astronomical data from Stonehenge, owing to its position, than from other ancient monuments. A number of astronomical data presented by the speaker supported the conclusion that Stonehenge was a solar temple and was used for observation in the height of summer. From their observations he and Mr. Penrose came to the conclusion that the avenue which was associated with the sarsen stones was laid down about the year 1680 B.C. Such temples as Stonehenge were erected in the very first flush of civilization, in order that the people should be able to fix the time for performing agricultural operations. It seemed certain that we had in Stonehenge a temple for determining the length of the year by observing the rising of the sun on its longest day; while in other parts of England there were temples for observing the sun not on June 21st, but early in May and early in August.

In the course of excavations for a new road in Enfield, England, a layer of dark soil from two to six feet in breadth was brought to the surface, in which many fragments of pottery and jewelry were embedded. Several coins were found and dated to the periods of Trajan, Claudius, Aelius, and Commodo. About a half-mile from the site of these discoveries a statuette was found lying on the ground. The dark color of the stratum in which the principal relics were found is supposed to have been due to burning.

Three papers relating to underground structures, chambers, and dwellings were read at the last meeting of the British Association. Some souterrains existing in the northeast corner of Ireland were described by Mr. William J. Fennell as being very numerous, and were regarded as showing the primeval architecture of the country. A souterrain might be defined as a subterranean place of refuge, and, in that sense only, a dwelling. The entrance was either naturally difficult of approach or cunningly hid, and the interior was generally long, low, narrow, and winding, and the presence of frequented paths long known as "difficulties," through which only one person could pass at a time, and then only by creeping. Nothing was found in them to indicate that they had been used for burial. They were not burrows, but vaulted chambers connected by passages, well defended, and built of dry masonry walls and roof, and after used and covered up by earth, and eventually hidden by vegetation. The exterior covering was always very thin. The construction was invariably of rough unhewn stones from the neighborhood, and the roof was formed by the overhanging of one stone on another. The barriers were formed of walls, rising from the foot almost to the roof, then a space of 12 or more inches to the next wall, which descended from the ceiling to within 15 inches of the floor. They led in some cases to a long, low tunnel 16 or 18 inches high, with a similar barrier at the other end. No two souterrains were alike in plan; some were straight, or almost so, with chambers branching out, and others extremely short, while others were considerably more than 100 feet long. One example was mentioned of a two-story building, entered from the field level to the upper floor, and from that to the lower one.

Three subterranean chambers cut in a bed of Thanet sand were described by Mr. George Clinch as having been discovered during the excavations for a sewer at Waddon, near Croydon. They were partly filled with fallen sand, but in each chamber a compact mass of very decayed pottery and Romano-British pottery were found. They were distinguished by various characteristics from British and Irish subterranean structures, and on the Continent of Europe the most similar chambers were those at Palmella, Portugal, which Cartailhac had ascribed to sepulchral purposes in the latter part of the polished-stone age. Similar chambers had been noticed in Brittany and elsewhere, and the subterranean houses at Mycenae were identical in plan, though different in dimensions and material. Southeast and east of Waddon were many hut circles which had been attributed to the Neolithic age. They had marks of entrance on the east and southeast side, and exhibited general resemblance in dimensions and plan with the Waddon chambers. The Waddon discovery was therefore of some importance as evidence for the size, shape, and plan of prehistoric dwellings, the vaulted roofed roofs reproducing in general form the interlaced boughs, benders, and wickerwork of the ordinary surface hut, and the lateral passage the doorway of the Neolithic dwelling. The general idea of interment within a house survived during the bronze age.

In the third paper certain primitive underground habitations were described by Mr. David MacRitchie as typical of a class of structures apparently existing at one time throughout the British Isles, though the greater part of the specimens now remaining were found in Ireland and Scotland. The occurrence in two of these dwellings of a number of dressed stones with Roman ornamentation which had been used in their construction indicated that they must have been built after the arrival of the Romans in Britain. Their use as places of human abode was obvious, because they contained domestic utensils, such as hand-mills and personal ornaments, as well as the broken bones of animals used by man as food. In a few instances they had a fireplace, but this was exceptional, as they were so well protected from the cold that an oil-lamp would suffice to keep them comfortable. From their characteristics, therefore, they quite justified the name of "earth-house," which was given to them in the Nicene living popular speech. They varied considerably in appearance, but most of them had their roofs about a foot or two below the surface of the
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ground; entrance was gained from above by one or more downward-sloping passages. They were built of rough, undressed, unmortared stone, the walls gradually converging until they met in a "cyclopesan" or "false" arch, completed by a large flagstone laid across. In some cases their very dimensions suggested the traditional belief that they were built for a dwarfish race; but Peff. Boyd Dawkins, in the discussion, answered that their size had no direct relation to the size of the people, as it was necessary that they should be restricted in size to place difficulty in the way of the enemy.

During the demolition of the old Bluecoat School, in Newgate Street, London (the Christ's Hospital of Lamb's essay), pieces of the Roman wall, the existence of which was well known, were laid bare. The wall ran along the west end of the Gray Friars' Cloister, and was about 10 feet high. The masonry, which consisted of six courses, was in excellent preservation. Close by formerly stood an archway, known as the New Gate, which spanned a narrow lane where a broad and level thoroughfare now runs. The New Gate was the great gates of London, and was so called, as Stow records, from its having been "lattier built than the rest."

France.—While etchings executed with much spirit and originality by the West European cave-dwellers of the latter Paleolithic age have been well known for many years, the first discovery of engravings and pictographs on the wall by M. E. Riviere in 1893. An account of another discovery of similar engravings was published in the Comptes Rendus of the French Academy of Sciences for Nov. 20, 1901, by MM. Capitan and Breuil. It embraced 109 figures of the Magdalenian epoch engraved on the vertical walls of the cave of Combrailles near Eyzies in the Dordogne for 100 meters on each side of the passage. They begin about 15 or 20 centimeters from the ground, and reach to an average height of 1.50 meter, often extending to the roof, which is from 1 to 2 meters in height. The figures are for the most part deeply engraved in the rocks, but in some of the designs are merely scratched; and they are often covered by layers of stalagmite, which is sometimes thick enough to obliterate them. In some cases the cuttings have been reinforced, and occasionally replaced, by black pigment. In some instances the surface of the rock has been described around the contour of the figure, particularly of the head, so as to throw it into slight relief. The style of the engravings agrees completely with that of the etchings on bone and antler of the Magdalenian stages, and is such as to make it seem certain that they were drawn by men familiar with the living animals. The animals pictured are represented separately, intermingled, or in groups. Among them are horses of two distinct types. One type is marked by a massive head with a convex nose, a mane short and stiff or long and erect, and a tail similar to that of ordinary horses. Evidences that some of these horses were domesticated appears in the representation of halters upon them or of cords round the muzzle, and a covering of some sort seems to have been thrown over the backs of two of them. Horses of the other type are of more elegant shape, with small heads, slender legs, short and erect mane, and a tail similar to that of domestic cattle, and a third kind suggests certain African antelopes. The difference between the reindeer, of which there are two figures, and the wild deer of Europe, of which there are three, is clearly marked. The mammoth is represented by 14 drawings. Some are entirely covered with hair; others have less hair, it being shown on the under side of the body, on the head, and occasionally around the mouth. The tusks are always strongly accented, and the feet are very distinctly drawn. The details of the form of the ears are indicated in two of the figures. The only approach to the representation of a human face is a kind of irregular circle within which two eyes are marked and marks are made for the nose and mouth. Among the simple signs described by the authors as occurring with the engravings are three roof-like designs somewhat complicated, a double contoured lozenge in the body of a horse, some marks resembling the letter M, semicircles, etc., and a group of small cups. Comparisons are made between some of these designs and those found in the Mas d'Azil cave. The author's paper is only a preliminary one.

Sketches and paintings upon the walls of prehistoric caves in the Dordogne have been the subject of several communications to the French Academy of Sciences. Messrs. Capitan and Breuil have visited the cave of La Mouthe, and have found paintings in red ochre upon the wall of the cave of Font de Gaume. The pictures comprised 80 figures painted in red ochre and manganese black, 49 of which are bisons. They are all engraved, and some of them the surface of the rock has been scraped. Many of the designs were found covered with a thick layer of stalagmite. The original of the figure of a running bison reproduced in connection with an article on the subject by Mr. A. C. Haddon (Nature, Sept. 4, 1902) is 1 meter (or 3 feet) long and 80 centimeters (or 26 inches) high. It is entirely painted in a brown color with a red tint on the forehead. These are the first frescoes recorded in France, the engraved designs published by M. Emile Riviere in 1893 from the cave of La Mouthe being rarely colored, and then only partly so. An analysis of the coloring matters employed by the paleolithic painters, made by M. Henri Moissan, shows the colors composed of oxides of iron and manganese in varied proportions. In a paper presented to the Academy July 26, M. Emile Riviere marked the distinction between the drawing of the rock by M. M. Capitan and Breuil, and the pictures he had discovered in the cave of La Mouthe in the Dordogne. The sketches at La Mouthe are nearly all engravings of greater or less depth, or shallow markings made by scraping and scratching the rock. Traces of paint were found on two of the figures. One of them represents a ruminant, in which the contour of the hind limbs is colored a blackish brown, especially at the level of the joints and hoofs, and the left flank is marked with ten spots of the same color, in a line from the shoulder to the upper part of the thigh. The other design is a kind of hut, the form of which is designated by a scraping of the rock rather than by an engraved contour line. The color has been laid on upon a part of the scratches in bands nearly parallel and alternately clear and dark, and is much less deep than in the figure of the ruminant. This is said by Mr. Haddon to belong to a drawing of an imitation of primitive man. Without saying whether he regards these drawings as of the same age with the paintings of the Font de Gaume, M. Riviere believes that they are certainly Paleo-
lithic, Magdalenian, and of the Quaternary geological period. The prehistoric artist who figured them, say M. Rivière and Mr. Haddon, was the contemporary of the reindeer and of the mammoth whose portraits he depicted.

Among the latest and most recent finds of remains of prehistoric man are two skeletons—one of a young man and an older woman—unearthed in the excavations carried on by the Prince of Monaco in the Cave of Grimaldi, near Mentone. They are believed by Dr. Verneau, of Paris, to be paleolithic. The skeletons lay side by side, the woman's body being doubled up, while the young man's head was concealed in a mass of ashes. The skulls are of the dolichocephalic or long-headed type.

**Scandinavia.**—A runic inscription copied from a stone which was found in 1817 near Ringerike, Norway, has been deciphered by Prof. Sophus Bugge, and found to relate to America. The stone was lost a few years after it was found, and also was a drawing made of it; but a copy of the drawing from which Prof. Bugge has made his version was preserved in the museum at Bergen. Apparently only a part of the inscription has been recovered, of which Prof. Bugge’s version, translated, reads: “They came out (from the ocean) and across great stretches, and needing clothes to dry themselves and food, away toward Vinland and on the ice in the uninhabited region. Evil can take away joy, so that one dies early.” The inscription is interpreted as the epitaph for a young Norwegian from Ringerike, who had been wrecked with his companions, and after wandering over the ice had finally died near the coast of Vinland. The character of the ruins indicates that the epitaph was cut between 1010 and 1030—that is, within half a century of the discovery of the Western Continent by the Northmen. It is therefore the earliest document known to us containing a reference to America.

**Rome.**—On April 2, Signor Boni, director of excavations in the Forum, discovered a prehistoric tomb, believed to date approximately from the eighth century B.C., containing a dolium, of black ware full of calcined bones: several reticulated egg-shaped vases, a bowl, and a cup with horned handles like those found in the terracotta of the bronze age. The tomb was situated in the bed-clay, about 12 feet below the level of the Sacred Way opposite the Regia, and close by the Temple of Antoninus and Faustina. The discovery is believed by Signor Boni to illustrate his theory that the founders of Rome were buried under a part of the Forum, and that their remains, when found, would prove to have been cremated, according to the custom of the ancient Aryans. A resemblance of the reticulated vases of the tomb to netted gourds, and the likeness of the funeral urn to a conical hat roof are taken as evidences of date from a primitive period. The tomb is the most ancient of a series of linked in the chain of Roman history as illustrated by an almost continuous series discovered by Prof. Boni within the precincts of the Forum down to the eighth century A.D.—constituted of the cippus under the Black Stone, the Rostra, the ritual pits, the massive republican drains far surpassing the Cloaca Maxima, the underground gallery for scene-shifting, the Lacsus and the Pons Juturnae, the Sacred Way (Via Sacra), the Heroon of Cesar, the Regia, the house of the Vestals, the Basilica Emilia, the Church of Santa Maria Antiquus, and others relics of less importance, but fitting well into the succession.

While excavating a tunnel under the Quirinal to afford a passage between two quarters of the city, a large chamber lined with sculptured marble, of the period of the decline, was discovered. Among the carvings were panels illustrating the cult of Bacchus. In one of these panels are the heads of a faun and a bacchante, and of a bearded man of the type of Dionysos, with a basket of fruit beneath the figures. In another is a similar group, with a burning altar shaped like a wheat-sheaf in the place of the basket. A thysrus, the Bacchic symbol (a rod of fennel topped with a pine-cone and bound with a fillet), forms an accessory. Below the female head is a lyre. A third group is a variation, on the same theme; and a fourth, a more vigorous composi-
table, which, notwithstanding the gracefulness of its design, exhibits in its violation of natural characteristics unmistakable marks of decadence, and a tax-relief which seems to represent a rustic origin. To Alme Vesper, the most important find in the Nymphs, at Vari, in Southern Attica, greatly surprised scholars with its fragmentary parts, which were five inches under the soil, where it was supposed to have been buried. Another find of the exploration were old Corinthian and proto-Corinthian pottery in abundance, with many vases in proto-Corinthian style, terra-cotta figurines, and small objects. Although finely wrought, additional parts of colossal figures that had been found two years before: a stone head of an Amazon from a high relief in Pentelic marble; a woman's gold ring with a stone containing a legend in raised letters; an onyx gem of a horse engraved upon it; several ancient Greek inscriptions, one of them at least as old as the sixth century B.C., and the local Greek alphabet; 200 terra-cotta lamps, with representations and inscriptions on them, of dates ranging from the sixth century B.C. to the fifth century A.D., and numerous other articles. In the explorations of the ancient city, following indications furnished by Pausanias, the excavators found the theater in the first year (1896), Piraeus in the second, the agora and the fountain of Glauke, and identified the temple of Apollo in the third year; and they were now having to do with structures which he knew nothing of, but which he had indicated among the ground at the time of his visit." A trench made during the past season in the theater opened up a confusing number of walls, which are believed to have belonged to two buildings, the Greek and the Roman. A great number of marble fragments, mostly architectural, were found in the trench, pieces seeming to belong to a large building containing a head of Medusa in high relief, and a marble head of a youth, "which is not only the best head found at Corinth, but is a real prize, and would be an ornament to any museum."

Part I of Investigations at Assos by the Archeological Institute of America, published by a committee of the institute and edited by Francis H. Bacon, contains the introduction maps, history of Assos, account of the expedition plans, photographs, and drawings of the agora, stoas, and Bouleterion, with inscriptions and lists of names of the agora. The second and third parts are about to appear together, and the fourth and fifth parts will complete the work.

The excavations began in 1879 by Dörpfeld and Milchöfer on the site of the great temple of Athene at Tegae in Arcadia are now being continued by the French school at Athens under the direction of Dr. Mendel, and with considerable results. Fragments have come to light of the sculptured boar hunt described by Pausanias in his itinerary, who names Scopas, of Paros, as the artist. The torso of a woman with a short chiton is assumed by Dr. Mendel to have belonged to the Atalanta; a head very much damaged is a remnant of the Hercules, and a part of one of the hounds has been discovered. A beautiful head, excellently preserved, is attributed to the statue of Hygieia, which according to Pausanias was next to that of Athene. A few small bronzes similar to those of the excavations in Olympia and the American in the Heraeum of Argos have also been unearthed. The Annual Report of the Society of the Promotion of Hellenic Studies mentions the mentioned excavations of Mr. Arthur Evans on the site of Knossos in Crete; interesting discoveries made by Mr. Hogarth at Kato Bakro; the undertaking by the British school at Athens of the exploration of a promising Mycenaean site at Pa-
leokastro, near Sitia, in eastern Crete; the establishment of a British school at Rome on the same lines as the school at Athens; satisfactory precautions for the preservation of the Codex Xenias of Aristophanes, which was practically complete, and on the publication of the report of the important excavations undertaken by the British school at Athens on the island of Melos; and work done in the library.

The extensive excavations which the French Government has been making in Delphi since 1892 are reported to be approaching completion. The most important work done recently has been the laying bare of the Pythian stadium. It is nearly 178 meters in length and from 25 to 29 meters wide. The course had to be excavated on the very sides of Mount Parnassus, at a cost of which the accounts are still extant. It has been found that at the starting-place small depressions were cut out, where those who participated in the races stood till the signal was given. Starting-places for 18 runners were provided. An inscription, supposed to be of the fifth century B.C., directs that “No wine shall be brought into the temple of Evdomonas (the god of the racers); but if it nevertheless be, then he for whom it is brought shall appease at the god with a sacrifice, and pay five drachmas, of which the informer shall receive one-half.”

A special organization has been formed in Berlin for the excavations at Miletus. Funds have been secured for buying the whole peninsula on which the city stood. The newly acquired territory includes all the western half of the old city, together with portions of the necropolis, the “sacred way” that led up to the temple of Apollo, the entire hill on which the theater was situated, the harbor, at the entrance of which two colossal lions of marble have been found, the recently uncovered market-place, some large public halls, and some fine Roman fountains.

Several entirely unknown poems from the fifth book of Sappho have been discovered by Dr. Schubart, of the Egyptian section of the Royal Museum of Berlin, in papyri recently added to the collection there. The manuscript dates from the late second or early third century B.C., which have been deciphered, one describes the author comforting a departing pupil, and another is addressed to a former pupil who had removed to Lydia. Several new metrical combinations appear in the poems.

The Grecian Government has been presented by Konstantin Karapanos, the discoverer and excavator of Dodona, with the articles found there, including bronze statues, bronze reliefs, inscriptions, temple utensils, and records of questions put to the oracle. The collection derives heightened interest from the fact that the temple and oracle of Dodona flourished from early times down to Roman days.

Crete.—In a short account of his excavations in Crete given at the annual meeting of the Society for the Promotion of Hellenic Studies (Hellenic Society), Mr. Arthur Evans said that there were four distinct lines of walls of the palace of Knossos. He described the various chambers and frescoes and the complicated system of underground communication. A considerable number of very interesting frescoes—of the same school as those of Melos—were also discovered. Many bits of naturalistic foliage and lilies were found, and scattered portions of sculpture of the previous year’s discovery had been satisfactorily pieced together. Amongst the art treasures of Crete to which Knossos has contributed in the past century are the marble beauty and ornament of the little Minoan pottery—seal impressions of a primitive style, some with cryptographic inscriptions; clay tablets with the linear script, developed from a pictorial prototype and not derived from the earlier types. There is also the economic history of those ancient days to some extent disclosed by a series of accounts. The excavations allowed an approximate reconstruction of a Minoan street, some of the houses being, it might be said, of a surprisingly modern character, and displaying a highly advanced civic development. The height of the houses enabled one to realize the description of the island as “hundred-citied Crete,” and pointed to a congested population. The statuary was remarkable, and bronze wire was used for hair.

In the more detailed accounts of his work, Mr. Evans refers to the results of the previous season’s excavations as having included the uncovering of the eastern wing of the palace of Knossos, which seems to have been mainly reserved for state and religious functions, business, and storage, a great central court, and beyond it to the east a part of what seemed to be the royal residential quarter. At the close of the last season’s work a staircase had come to light here leading down by a triple flight to a hall with double tiers of colonnades, and beyond it a larger columnar hall or megaron. On the upper level north of these ran a corridor beneath which another corresponding passage of lofty dimensions had now been cleared out, originally lit by a large window opening on the light-well of the larger hall. The clearance of this was marked by the discovery of a very extensive deposit of inscribed clay tablets, largely of a position previously discovered, which included about 100 perfect documents dealing with palace accounts. A large portion of these tablets dealt with percentages, and made it evident that the decimal system was in use. Thus 3 of these tablets, of which facsimiles were exhibited to the Oxford Philological Society, each bore 3 or 4 numerals, the sum of which (though the numbers themselves varied) was 100. With these were several large clay impressions of what is supposed to have been a royal signet ring, exhibiting a goddess and her attendant the goddess, the matrix had been found the year before in another building. The spacious chamber bordering on this corridor, which has been named, from the frequent occurrence of these figures, “The Hall of the Double Axes,” had at its eastern end a double portico facing both south and east. A doorway in its southern wall led to a finely paved court, beyond with the articles found there, including bronze statues, bronze reliefs, inscriptions, temple utensils, and records of questions put to the oracle. The collection derives heightened interest from the fact that the temple and oracle of Dodona flourished from early times down to Roman days.
was indicated by azure wreaths and coils of dotted spray on a white ground. In the figure of the upper part of an elegant lady in a yellow jacket and light chemise, the flying tresses and outstretched arm suggest violent action. Another fresco fragment shows a more rude admiration of the figure in the act of springing from above and seizing the horns of a galloping bull. With the remains of a series of frescoes exhibiting female toreadors found toward the close of the previous season's excavations it was possible to reconstitute a complete panel of one of these fresco designs. "The whole is a tour de force of ancient circus shows. A Mycenean cowboy is seen turning a somersault over the back of a charging bull, whose horns in front clinge a girl in boy's costume, while another girl performing behind, with outstretched hands, seems to wait to catch her as she is tossed over the monster's back. The fallen body of a man beneath another bull brings out the grimmer side of these Minoan sports." A private staircase opening from the north wall of the newly discovered hall leads up by a double flight to upper rooms, which are on the ground level by the central court and of the originally discovered buildings on its west side. They are, however, isolated by the intervention between them and the great central court of a larger area than the fact that apparently no means of access. A passage opening on the west side of the hall leads to what appears to have been the most secluded part of the residential quarters of the palace, the rooms on the levels of the halls of the Colonnades and of the Double Axed. At one point in these apartments were the remains of what appeared to be a wooden staircase, the upper part of which was choked with broken seal impressions. One of these impressions, "only a fragment," bears part of the impress of a Babylonian cylinder, "thus supplying direct proof of correspondence with the East." Mr. Evans remarks especially upon the elaborate drainage system of this quarter of the palace: "The well-paved floors are underlaid by quite a network of stone channels, in places crossing each other at different levels, and roomy enough to allow a man to crawl along them. A succession of stone shafts leads down to these fresh water conduits, which apparently penetrated with a latrine, of which a curious and in some respects very modern example also occurs on the ground floor. In another part of the palace a vast cistern and a line of supporting drain-pipes have been found of a most advanced form, provided with stop-ridges." In another quarter south of this group of chambers were smaller rooms, in which parts of two boards of inscribed tablets were found. One of these contained lists of persons indicated by the man-sign, the other referred to the armorv, the exhibits, besides the linear characters of the inscriptions, outlining characters of swords. The pottery of this and the adjoining region gave some new illustrations of the prehistoric writing of Crete. Another magazine contained vases in the earliest palace style, some of which were painted with very naturalistic lilies. In an adjoining chamber was a kind of domestic shrine, which is thus described: "On a small dais, beside a tripod of offerings, and with a miniature votive ax of statenite before her, rose a painted terra-cotta figure of a goddess, pillar-shaped below according to the old religious traditions, and with short hair, but in front of her stood a male votary holding out another dove. That a goddess was associated with the palace cult of the double ax further appears from a gem on which a female divinity is seen bearing this symbolic weapon in her hand." In the basements of one of the eastern terraces and below the level of the later palace were found remains of another magnificent construction which was still earlier than the structure called funerary. In it were vases of the Kamares class, some with lid designs in white, a miniature vase of gold and porcelain, and a miniature pilaster of glazed terra-cotta with doves perched on the roof. In another basement, not far away from this one, and at a slightly lower level, was found a mosaic of small porcelain plaques, which seems, as described by Mr. Evans, to have represented "scenes disposed in various zones, recalling the subjects of Achilles's shield—the walls and houses of a city, a vine and other trees, warriors with bows, spears, and throwing sticks, besiegers and defenders, and various animals. But the most surprising part of all is the houses of which the city is composed. Fragmentary as are their remains, it has been possible to reconstitute about a score of these. The varying character of the structure—stone, timber, and plastered rubble—is evident, and the apparent lack of provision for passage between these prehistoric structures should thus be recovered to us intact from the guls of time, is the altogether modern character of some of their features. Here are three storied rooms of semi-detached kind showing contiguous doorways) with windows of 4 panes, or double windows of 3 panes each, which seem to show that the inmates of these houses had actually some substitute for glass." The part of the eastern side of the great paralelogram in which the halls of the Colonnades and the Double Axed are situated showed that it was a building of 3 stories. The limits of the palace on the eastern slope of the hill are said by Mr. Evans to have extended themselves beyond all anticipation, but much denudation has taken place. Among the finds are remains of a large architectural fresco with realistic imitation of veined marble, and stone jars more capacious than any previously brought to light. A stone spout jutting out of the face of the wall, connected by a conduit with an oil-press above, explained their purpose and the manner in which they were filled. Farther down were massive lines of supporting drain-pipes here the outer eastern boundary of the palace. In the small but well preserved Mycenean settlement excavated by Miss Boyd at Gournia, sacrificial vases, bronze saws, and other implements, and anti-Mycenean fetishes and idols have been brought to light; and through the excellent preservation of some of the buildings a sensible addition has been made to our knowledge of Mycenean domestic architecture.

The excavations of the Italian Archeological Mission at Phaestos, under the direction of Prof. Halbherr, have been practically completed after three seasons of work. The architectural lines of the palace here are described as being "incomparably more striking" than those of Knossos. The pavement of the agora is traversed by some curious slightly raised diagonal lines, and the agora terminates on the north in a broad series of stone steps. To the west is another imposing flight of stone steps on her head, while in front of her stood a male votary holding out another dove. That a goddess was associated with the palace cult of the double ax further appears from a gem on which a female
but in the center is a great stone pier which apparently served no structural purpose. The other apartments show a fundamental similarity in plan with that of Knossos. The central court or quadrangle is unusually imposing. Both Knossos and Pheastos seem to have been inhabited from the remotest prehistoric times; but after both were burned in the Mycenaean age, they were used in a time of great splendor. Another Mycenaean palace has been discovered by Prof. Halbherr at Hagia Triada, a few miles west of Phaistos. It stands on a hilltop overlooking the plain through which the river Le- thaeus flows to the sea. The excavations, only begun, have yielded results full of promise. Among them are more tablets with pre-Hellenic inscriptions, two frescoes, one of a wood scene and the other of a sumptuously arrayed Mycenaean lady, and a vase decorated with 26 figures in relief of a procession of a band of warriors headed by their chief.

At Palaeoastro, at the extreme east of the island, Mr. R. C. Bosanquet has discovered two cemeteries of the Kameses epoch, in which a most remarkable form of pottery is found—the Levant (packing the bones, cleaned by previous interment, in chambers) is shown to have been in vogue before the Mycenaean age, some Mycenaean pottery is found in the same graves; of which is of a type intermediate between the ordinary dwelling and the great palaces.

The belief is maintained by Mr. Evans that in Crete the double ax was used in part as a symbol associated with a divinity known to the Greeks as the Cretan Zeus, which in its original character was essentially a sun or light god. It was in itself an object of worship as the ductiform of the divinity with which it was associated. On a Mycenaean gem from east Crete, found by Mr. Hogarth, votaries are actually seen in the act of adoration before it. The fresh discoveries, moreover, confirmed the view that though a male divinity was also represented, at times in warrior guise on the sigetids and seal impressions of the palace, the most prominent place was taken by a goddess who from her lion-guardsians might be regarded as a prototype of the Latin Rhea-Cybele, though in other aspects of her personality she is closely paralleled in the goddesses of the Thracian Apollon, Persephone, or Ariadne. Evidences of the cult of the double ax were also remarked in the palace shrine described by Mr. Evans. The whole result of the excavations at Kamares, Mr. Evans said, had been to come out in a remarkable way the underlying element of truth in ancient tradition. In his account given at the meeting of the British Association Mr. Evans spoke of clay cups having been found with ink inscriptions, "a new departure in the prehistoric script." He also described some modern features in the mosaic representation of a Minian street: and ivory figures of youth, as displaying naturalistic details not found again in such work until the age of the Italian Renaissance. Below the Mycenaean palace had been found remains pertaining to what seemed to have been an earlier royal dwelling going back into the third millennium B.C., in which were beautifully painted vases, some of eggshell-like fabric, and some embossed in imitation of metal-work. The Neolithic stratum under the whole site was productive of more stone implements, pottery, and primitive images of clay, followed by the tridacna, and pointing to a prehistoric intercourse with the Indian Ocean.

In an account of his excavations in the Ditean cave, given before the Anthropological Institute, May 27, Mr. D. G. Hogarth expressed the belief that the cave was undoubtedly the one that was the seat of the legendary birth of Zeus. It stood near a lake bed which had a subterranean outlet. The cave was exceedingly rich in remains, but little evidence existed in it of Mycenaean or pre-Mycenaean times, nearly all the remains being subsequent to the Mycenaean period. The skulls found were clearly of sacrificed animals. The honor of Dicte had been largely usurped by the cave of Ida, but Dite showed a variety of ancient objects of the stone age—symbolical axes of fractional size, and others—a massive Mycenaean wall, and a few specimens of Hellenic and Roman work. Mr. Hogarth said he had excavated another settlement at the end of the Dictean cave, the little wasted settlement of Zachro. In two caves he had found human bones, and what seemed to be cists like those of the Egean islands of the prehistoric period. In one cave he had lighted on five burials. One cist burial was untouched, and included a new kind of pottery more regular than the Neolithic pottery. The vases tended to show the existence of a prevailing culture following the Neolithic period. In connection with an address by Mr. Evans, a lecture was given by Prof. Boyd Dawkins on the Animal Remains of the Cave, dean of neolithists, and one of the men who led to inferences of its high antiquity. Among the skulls discovered was one of an ox to which the author found no exact parallel. He had therefore disposed of it as at least a member of a distinct species, to which he gave the name of Bos Criticus. Another skull, in some respects varying from all existing specimens, he inferred to be that of a domestic boar. The preservation of these skulls, apparently for ornamental purposes, was a singular note of modernity in prehistoric times. Prof. Dawkins could not state the precise or approximate date of any of the specimens sent him by Mr. Hogarth. Describing the human skulls, he said that the teeth were wonderfully small, and some of them decayed, and these and other circumstances led to the inference that they belonged to a highly developed civilization. Decayed teeth were, unhappily, a mark of an advanced culture. The skulls found at Dicte were, said Mr. Evans, of the oldest skulls of Attica and Asia Minor. The people interred in this case were, the author thought, cognate with the Iberian race, long-headed, probably non-Aryan, and stretching back to the Neolithic age. Prof. Petrie noted correspondences from Egypt, as in the hanging of skulls as ornaments, with what had been said of Crete.

Bosnia.—Very fruitful excavations have been made among the remains of prehistoric lake-dwellings on the River Save, near Dolina, north-east Bosnia. Four dwelling-houses built on piles have been laid bare and the burial-place belonging to the settlement has been examined. In it were found a number of bronze and urns. Among the articles recovered are objects of pottery, utensils of staghorn, weapons of bronze and iron. ornaments of bronze, silver, gold, and amber, seeds and bones. It has been possible, by the aid of these houses, to determine the architectural construction of the pile-dwellings with a hitherto unusual accuracy. A boat 5 meters long was found lying 9 meters below the floor of a pile-dwelling the tridacna are assigned to two different periods, of dates included in the first millennium before Christ.

Palestine and Syria.—The first report of the new American school in Palestine, Novem-
BAR. 1901, describes the establishment of the institution, and the beginning of excavations at Sidon, under the first director, Prof. C. C. Torrey, of Yale. A Greek necropolis was explored, and yielded results of importance. At Jerusalem students of the school will have access to several valuable libraries, including the Greek Patriarchal Library, with a great store of manuscripts, the Dominican Library, and the Franciscan Augustianum, and Latin Patriarchate libraries. The Roman Catholics were doing much in Jerusalem to encourage archeological and linguistic studies. Three museums had lately been opened, one of them by the Turkish Government, containing the finds of Dr. Bliss in his excavations for the Palestine Exploration Fund.

Excavation was actively pursued in Palestine and the East in 1902, under English and German auspices. The operations included work begun by the English Palestine Exploration Fund, under Mr. J. McAllister, at Abu Shusheh, which has been identified by M. Clermont-Ganneau as the site of the Biblical Gezer, near Rambleh, on the edge of the plain of Sharon; explorations by Austen at Joppa, and by Weingarten at Tell el-Far'a; excavations at Esdraelon; excavations to be begun by Germans at the ancient Migdidd; the exploration and restoration by the government of Jupiter Heliospolitanus at Baalbek, and the neighboring smaller temples, which has been going on for two years and will require a year longer; excavations by the same expedition of some smaller but interesting ruins in the Lebanon, on the edge of the Bekâ, in the same general region. The same expedition was also exploring the ruins of Palmyra, Gerash, Amman, and other comparatively little known sites east of the Jordan, for the purpose of a more thorough study and comparison of Syrian and Roman architecture and antiquities. The Germans have also been excavating at Miletus, at Pergamos, and at Babylon, and contemplate the excavation of a little known Babylonian ruin mound, apparently of great antiquity, south of Nippur, between the Tigris and the Euphrates.

At the annual general meeting of the Palestine Exploration Fund, June 17, Major-Gen. Sir Charles Wilson delivered an address on The Recent and Proposed Excavations of the Fund. The work of the past year, he said, had been mainly the excavation of grounds in the Valley of Jotha, and had thrown light on many ancient sites. The excavations revealed remains of pre-Israelitish times from 1700 B.C., and the successive periods down to Byzantine times. Painted ware and Mycenaean pottery were found in this region, and specimens of early Greek ware as well as Assyrian and Babylonian objects. The chief site was probably to be identified with Gath. Remains were also found of a town which had been abandoned in prehistoric times; and relics of subsequent periods were discovered there. Statues were found of Demeter and Berenice, and pottery and other fragments of the third or fourth centuries B.C., which had been imported into Palestine. Two inscriptions in Greek characters were discovered, one of them divided into 7 columns, and a translation from Hebrew into Greek, the Greek characters of which were read from right to left. Many tablets were commemorative of important events, as of birth or marriage, and these were symbolic references. Few of the caves examined by Mr. McAllister seemed to be earlier than the Seleucid period. Some of them contained remains of a population distinct from that of the towns.

The pottery began with the pre-Israelite or Amorite period, and furnished specimens similar to those discovered by Prof. Petrie in Egypt. The painted pottery or sherds presented Mycenaean features, though they were not supposed to be Mycenaean in origin. In the Jemar period the Phoenician and Mycenaean influences seemed to have disappeared. The names of the potters—all of a tribal character—were found on many of the pieces of Jewish pottery. After the Jewish period a distinct growth of beauty in form and design is shown. Few completed statuettes of later times were found; but some of these were of fine workmanship and form. One of the great caves had been used as a columbarium after its original purpose had been abandoned.

Under the auspices of the Vienna Academy of Sciences, Dr. Sellin, professor in the Evangelical Theological Seminary in Vienna, began excavations in March, 1902, in a mound near the village of Tanaak, one day's journey from Jaffa, and three days from Jerusalem. His report relates the discovery of four castles or fortresses. In the middle were the ruins of an Arabian castle. On the east was a castle of the period of King Solomon, on the northwest a castle of a late Israelite period, while on the west was found a castle of pre-Israelite or Canaanite date. All the castles had been plundered before they were destroyed, so that no valuables were found, but objects of stone and clay and weapons were recovered by the aid of which the dates of the various buildings were approximately fixed. The

![A HITTITE INSCRIPTION HITHERTO UNKNOWN TO SCHOLARS.](image-url)

Canaanite castle, the oldest of the number, was built of unhewn blocks of stone, which showed no marks of the chisel. Inside of it lay fragments of images, such as are mentioned in the Bible, and also a number of small ornaments made of stone and earthenware, mostly representing beetles, scorpions, and other insects, and bearing inscriptions. There were, too, some rude weapons. The second building in date had suffered considerably, but enough remained to show that it belonged to the class called Solomon castles. In both buildings, idols, vessels, and other objects appertaining to religious rites were found, such as a sacrificial pillar of stone, with an opening for libations, a stone altar, and an earthenware altar in the form of a throne, adorned with cherubim and lions. The cherubim, of which these are the only existing representations, and the human heads with the bodies of lions, and wings. The late Israelite castle appears to have been a fortress only. The Arabian castle displays more architectural skill than the other. Vessels and lamps were
found in it, and inscriptions of a religious character. Human remains buried with vessels containing inscriptions were found beneath the ruins of all the castles. A cemetery for children seems to have existed here, in the Sinaitic castle. Prof. Sellin attaches most importance to the excavation of this Canaanite castle.

A stone, belonging to a gentleman residing in the city and bearing Hittite inscriptions, has only recently been first made known to Europeans. An illustration of the inscriptions is given in the figure on page 29.

Babylonia.—The German Oriental Society reports of the results of the latest expedition sent out by it to the East the discovery of 400 inscribed clay slabs in the center of the ruins of Babylon. Two of these have been deciphered—one comprising a large part of a Babylonian compendium, or dictionary, of the cuneiform characters; the second tablet contains a litany which was chanted by the singers of the temple of Esagila on the return of the god Marduk to his sanctuary.

The discovery of a square courtyard surrounded by walls in the south quarter of the city of Babylon is reported by Dr. Kaltenev. The southernmost wall is described as being remarkable for its architecture and its elegance. It is faced with glazed tiles, ornamented with flowers and tracery. When the tiles that had fallen to the ground were replaced, a beautiful design was revealed. Bricks composed of enamels and glass-based work, which were apparently part of a mosaic pavement, were found in the courtyard, together with coins, fragments of inscriptions on stone, and a broad slab bearing a picture of the Babylonian idea of hell. From the great elegance of this courtyard Dr. Kaltenev believes that it was a part of the palace of Nebuchadnezzar. A building about 60 feet wide and 160 feet long is supposed by the discoverer to have been the throne room of Nebuchadnezzar. Exact opposite the door is the niche in which the royal throne stood. On both sides and on the northern front of the hall were richly colored ornaments in good preservation. No inscriptions of special significance are mentioned.

Egypt.—The review of the work of the society, the report of the Egypt Exploration Fund for 1901 gives a prospectus of the work done during the season and those of other nationalities. Among these is the discovery at Elephantine or Assouan, reported by Prof. Sâyce, of an Aramaic papyrus, with two ostrakas, relating to loans of money contracted by Jews settled in that district during the Persian epoch. The Aramaic texts are said to contain some fresh words and to throw light on Biblical Aramaic. The discovery by Mr. Evans at Knossos, in Crete, of an alabaster lid inscribed with the name of the Hyksos King Khyan, coupled with the occurrence of the same name on a lion of Bagdad now in the British Museum, seems to show that that ruler was a personage of great importance. The monuments of no other Pharaoh have so wide a range. Some examples of a curious kind of lamp, discovered in two places, have been placed in the Cairo Museum. It consists of a small bowl pegged into a saucer, and provided with an extinguisher. It was probably used by a person who heated his means of a wick. A Berlin papyrus, published by a German professor, contains a Hesiodic fragment about the wooing of Helen, of whose suitors Ulysses was so sufficiently distinguish, by which Petrie has established a succession of remains of pottery. Having to deal in his latest season's work with a site which contained, in successive layers, the remains of all distinguished, of successive kings of the first Egyptian dynasty, and
below these the remains of several continuous prehistoric periods, he devised a plan of classifying the whole mass by a card catalogue. He then tabulated his results, and obtained a sort of chronological scheme by means of which the development in the fashionable of pots may be followed from a period far anterior to Menes through successive prehistoric strata into the continuous line of kings of the first dynasty.

A description and translation are published by Jules Nicole, of Geneva, in the Archiv für Papyruskunde of a fragment of a papyrus on which are written questions and answers concerning the surgical operations, showing how surgical examinations were conducted in Egypt eighteen centuries ago. Its contents, so far as they have been preserved, indicate that a fair knowledge of anatomy existed; and the subject is treated from very like a modern point of view. The questions are such as might be properly asked in a medical school of the present day. Another article by Prof. Otto Gradenwitz, of Königsberg, cites two documents from the Berlin papyri, giving evidence that banks existed in Egypt, and traded in gold and silver, and in the sale of merchandise. The form of these drafts is more complicated than present forms; but "they amounted simply to orders to pay a certain sum of money to a certain party at a certain place, and to charge the same to the account of the undersigned."

Cartaghesina.—The excavations made during the past twenty-five years on the site of ancient Cartaghesina, by Dr. L. Delaporte, and published by Mr. J. Tryon, P.R.H., on the Blue Nile, contains the ruins of several Christian temples. It was visited by Col. Stanton, governor of Khartoum, who began preparations for exploring, and is about to be photographed. At Naga, 80 miles north of Soba, are extensive ruins, including 5 temples of Roman architecture with avenues of figures of Paschal lambs leading up to them. Hieroglyphic inscriptions were found, and the composite capitals at both places bore the figure of the cross. The naves say that similar ruins are spread all over the country. Sculptured rocks and temples are to be found 80 miles east of Khartoum, and temples are said to be known as far away as Darfur.

Central Asia.—A number of manuscripts said to have been found in Chinese Turkestan, in the desert north of a caravan route between Gōmra and Khōtān, which were offered to the attention of archeologists several years ago, have been a subject of investigation by M. A. Stein, and have been found by him to be fraudulent. Mr. Stein, who is engaged in archeological explorations in Chinese Turkestan, has just discovered the manuscript of the Chinese Turkestan of the Beilage of the Aligemeine Zeitung, No. 130.

Africa.—Results of six years' systematic explorations among the prehistoric remains between the Zambesi and Lineup, in the central part of Africa, are given in the book of R. A. Hall and W. G. Neal, entitled The Ancient Ruins of Rhodesia. Nearly 200 ruins were investigated by the authors and Mr. George Johnson, under grants from the chartered company. More than 500 tombs, citadels, enclosures, chains of forts, gold workings, and terraced slopes are reported from various districts covering a total area of at least 115,000 square miles, not one-tenth part of which has as yet been thoroughly explored. Structures are found among these ruins of earlier and of later dates, and the authors have classified them under four epochs, one of which case periods range from 1000 or possibly 2000 n. c. down to the advent of the Mohammedan Arabs and the Portuguese. The buildings of the first period, as at the Great Zimbabwe, are marked by great solidity and superior workmanship. The massive walls of dry masonry rest upon the bed-rock, and are often 15 to 17 feet thick at the base. They are skilfully built, and are ornamented with various decorative patterns. These are ascribed to the South Arabian Himyarites by Theodore Bent, Dr. Schachtier, and Mr. A. H. Keane. The structures of the second period are less substantial than these, and are inferior to them in other respects, and are assigned to the Phoenicians. They are built upon the other monuments or constitute extensions to them, and also occur by themselves in the districts farther removed from the eastern coast. One class of structures are recognized as slave pits. Extensive terraced slopes in the Inyanza and Mount Ruaha districts resemble some of the Yemen uplands. Other finds are represented in quartz crushers, gold-smelting works, gold crucibles showing gold in the flux, and massive gold objects, beads, bangles, plates, wire, pegs, nails, ferules, etc., which have characteristics of the monuments of the first period. "All the branches of the goldsmith's art were practised by them," the authors say, "including gold wire-drawing, beating gold into thin sheets, plating iron and bronze with gold, and burnishing." The conditions all go to indicate that the South Arabian Himyarite occupation of this region was a settled one.

ARGENTINE REPUBLIC. A brief general account of Christian antiquities in the Soudan awaiting exploration has been published by Mr. John F. Robinson, of Soba, on the Blue Nile, on the ruins of Soba, which contains the ruins of several Christian temples. It was visited by Col. Stanton, governor of Khartoum, who began preparations for exploring, and is about to be photographed. At Naga, 80 miles north of Soba, are extensive ruins, including 5 temples of Roman architecture with avenues of figures of Paschal lambs leading up to them. Hieroglyphic inscriptions were found, and the composite capitals at both places bore the figure of the cross. The naves say that similar ruins are spread all over the country. Sculptured rocks and temples are to be found 80 miles east of Khartoum, and temples are said to be known as far away as Darfur.

ARGENTINE REPUBLIC, a federal republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 30 members, 2 from each province and 2 from the federal district, and a House of Representatives, numbering 86, 1 to every 20,000 inhabitants. One-third of the members of each house is elected every two years. The President and Vice-President are elected by direct popular vote for six years. The President of the republic, inaugurated on Oct. 15, 1896, is Gen.
ARGENTINE REPUBLIC.

Julio A. Roca. The Vice-President is Norberto Quirino Costa. The Cabinet at the beginning of 1902 was composed as follows: Minister of the Interior, Joaquin Gonzalez; Minister of Foreign Affairs, Dr. Amaneco Alcorta; Minister of Finance, Dr. Maximo Avelino; Minister of Justice and Public Worship, Dr. J. Sert; Minister of War, Col. Pablo Riccheri; Minister of Marine, Capt. O. Betheder; Minister of Agriculture, Dr. W. Escribano; Minister of Public Works, Dr. Emilio Civit.

Area and Population.—The area of the republic is 1,113,840 square miles, that of the 14 provinces being 822,800 square miles and that of the territories 490,880 square miles. The total population was estimated on Dec. 31, 1900, at 4,794,144, being 7.4 to the square mile, and on Dec. 1, 1901, the increase for the year was estimated at 100,000. There were about 50,000 Argentineans living or traveling in foreign countries. The number of Indians was about 30,000. The number of marriages registered in 1900 was 28,103; of births, 173,719; of deaths, 88,656; excess of births, 85,063. The number of immigrants arriving in 1900 was 105,932, comprising 63,143 Italians, 20,383 Spaniards, 3,100 French, 2,119 Russians, 2,924 Austrians and Hungarians, 1,883 Syrians, 760 Germans, 431 British, 355 Swiss, and 395 English. The total immigration since 1856 was 2,670,293. In 1901 the number of arrivals was 160,000 and of departures 112,000. Buenos Ayres, the capital, had on July 1, 1901, a population of 326,298. The next largest city is Rosario, with 112,461 inhabitants, and after it La Plata, which has about 61,000, and Tucuman, with 60,000 inhabitants. Education is free, secular, and compulsory. There were 3,035 public and 1,075 private primary schools in 1899, with 13,103 teachers and 326,752 scholars; 16 Government lyceums, with 450 teachers and 4,103 scholars; and 2 national and 3 provincial universities, with over 3,000 students.

Finances.—The revenue of the National Government in 1900 was $36,532,346 in gold and $63,962,000 in paper, and the expenditure was $25,819,979 in gold and $94,271,310 in paper. Under the conversion law of 1899 paper dollars are redeemable in gold at 44 per cent. of their par value. The revenue for 1901 was estimated at $37,901,000 in gold and $62,300,000 in paper, and expenditure at $26,627,175 in gold and $92,460,805 in paper. The actual receipts were $35,249,736 in gold and $62,300,000 in paper, and the expenditures were $32,836,857 in gold and $91,160,227 in paper. For 1902 the estimated receipts were $40,013,347 in gold and $64,290,000 in paper. The revenues collected in gold are $30,000,000 from import duties, $3,000,000 from export duties, $2,765,000 from port and navigation dues, $440,000 from consular dues and fines, and $3,937,474 from debt services. The expenditures for 1902 were reckoned at $32,438,189 in gold and $96,190,813 in paper. The estimates under the several heads were: $2,600,000 in paper for Congress, $13,941,222 in paper for the Interior Department, $300,381 in gold and $1,165,729 in paper for foreign affairs and worship, $7,67,102 in paper for the Ministry of Finance, $25,904,124 in gold and $12,093,810 in paper for the public debt, $12,066,164 in paper for justice and education, $15,675,000 in paper for the Ministry of War, $3,185,000 in paper for the Ministry of Agriculture, $300,000 in gold and $10,600,100 in paper for public works, $3,496,371 in gold and $1,327,400 in paper for pensions, and $1,300,000 in gold and $1,300,000 in paper for extraordinary purposes.

The foreign debts on July 1, 1901, amounted to $286,894,301 sterling, consisting of $245,437,44 of national loans outstanding, $31,384,147 of provincial loans and other debts assumed by the Federal Government, and $10,148,310 of consolidated internal debt. The funded debt at the same date amounted to $17,837,500 in gold and $384,438,833 payable in paper. On April 1, 1902, the external debts amounted to $380,451,205 in gold and $97,863,000 in consolidated internal debt to $89,016,833 in paper and $17,837,500 in gold. The municipal indebtedness is $24,566,422 in gold. The paper money in circulation on Jan. 1, 1901, amounted to $291,004,556. The mint up to Dec. 31, 1897, had coined $31,716,545 of gold, $2,805,840 of silver, $2,748,375 of nickel, and $62,704 of copper coins.

The Army.—The standing army consists of 1,240 officers and 7,297 men. The war strength of the regular army is about 30,000 of all ranks. There are 471,912 men enrolled in the National Guard, of whom the younger members receive two months of military instruction. A law authorizing compulsory military service was passed by Congress in 1901.

The Navy.—The Argentine naval force consists of the new coast-defense armors-clads the Libertad and Independencia, of 2,336 tons, having a speed of 14.5 knots, 8 inches of armor, and a battery of four 9.2-inch quick-firing guns; the old coast-guards Andres and Plata; the central-battery ship Almirante Brown, of 4,267 tons, having 9 inches of side armor and carrying 10 5.5-inch and 6 4.7-inch quick-firing guns; the Garibaldi, of 6,840 tons, and Puertorredon, of 6,882 tons, carrying 2 10-inch rifles and 10 6-inch and 6 4.7-inch quick-firing guns, and the San Martin and Gen. Belgrano, of 6,882 tons, the former armed with 4 8-inch, 10 6-inch, and 4 4.7-inch quick-firing guns, the latter with 2 10-inch rifles and 14 6-inch and 2 3-inch quick-firing guns, all cruisers having 6 inches of armor and a nominal speed of 20 knots, built originally for the Italian Government; the 9 de Julio, 25 de Maio, and Buenos Ayres, strongly armed and swift second-class cruisers built in England; 5 converted cruisers of 3,403 to 4,218 tons, purchased from Italian and Spanish steamship companies; the English-built destroyers Corrientes, Missiones, and Entre Rios; the 18 small vessels, built in 1899, exceeded the contract speed of 26 knots, and the one built to replace the Santa Fe, which was lost; and 12 first-class and 10 second-class torpedo-boats.

Commerce and Production.—There are over 15,000,000 acres in cultivation, yet that is only 6 per cent. of the available land. Wheat in 1901 covered 8,449,375 acres, on which 2,871,440 tons were grown; the yield of flax from 1,518,380 acres was 390,000 tons; and the corn-crop was in the neighborhood of 2,000,000 tons. The wool-clip of 1902 was valued at $40,000,000, the wheat-crop at $120,000,000, the corn-crop at $100,000,000. The quantity of sugar produced in 1899 was 103,112,000 tons, four-fifths of it in Tucuman province. Alfalfa is grown extensively for feeding-stock. There were 89,000 acres of vineyards in 1900. The number of cattle in 1900 was estimated at 28,400,000. The wool-clip of 1901 was 250,000 tons. Coal and petroleum are found, and some gold is mined on the slope of Mount Aconcagua. The cattle-hide and wool of 1900 having been 2,112 ounces. The existence of foot-and-mouth disease in Argentina put an end to the exportation of live stock to Great Britain. In May, 1902, 2,254,040 in gold and $1,300,000 in paper for extraordinary purposes.
ARGENTINE REPUBLIC.

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for the reopening of British ports to Argentine

The value in gold of the imports in 1900 was $113,485,000, and of exports $154,900,000. Imports of live animals were $304,271; alimentary substances, $10,453,000; beverages, $7,277,861; textile fabrics and clothing, $37,557,947; mineral and other oils, $4,194,342; chemical products, $1,708,594; dyes and colors, $805,727; lumber and wood manufactures, $7,040,854; paper, $2,926,206; leather and manufactures thereof, $1,244,784; iron and steel and their manufactures, $19,634,051; other metals and manufactures thereof, $3,343,172; earthenware, china, and glass, $8,983,370; tobacco, $3,147,161; other articles, $3,321,533. The exports of animals and animal products were valued at $71,253,986; of agricultural products, $7,428,356; of forest products, $3,508,915; of mineral products, $232,222; of products of the chase, $990,594; of other products, $1,138,439. There were $38,209,757 of duties collected from the imports and $58,163,777 of the exports. The exports of wool were 101,113 tons; of sheepskins, 57,593 tons; of wheat, 1,029,676 tons; of corn, 713,248 tons; of beef, 60,706,555; and of Chilean species were $7,206,555, and exports $3,480,840. The commerce was distributed among the principal countries as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>$38,692,755</td>
<td>$26,900,685</td>
</tr>
<tr>
<td>Germany</td>
<td>16,628,615</td>
<td>90,070,186</td>
</tr>
<tr>
<td>French Russia</td>
<td>13,647,363</td>
<td>163,597,060</td>
</tr>
<tr>
<td>Belgium</td>
<td>8,430,980</td>
<td>17,960,980</td>
</tr>
<tr>
<td>United States</td>
<td>13,524,490</td>
<td>20,062,875</td>
</tr>
<tr>
<td>Italy</td>
<td>14,044,465</td>
<td>8,834,135</td>
</tr>
<tr>
<td>Brazil</td>
<td>3,741,980</td>
<td>6,165,506</td>
</tr>
</tbody>
</table>

Navigation.—The number of vessels entered at Argentine ports during 1900 was 12,917, of 6,193,783 tons. At Buenos Ayres 1,257 vessels, of 2,110,206 tons, arrived from overseas. The merchant fleet of the republic in 1900 comprised 135 sailing vessels, of 39,798 tons, and 101 steamers, of 40,374 tons.

Post, Phones, and Telegraphs.—There were 23,585 miles of railroad in operation in 1900, capitalized at $326,616,661 in gold. The gross earnings in 1898 were $4,394,109; expenses, $1,910,458, for the year 1899 was 17,998,961; tons of freight, 12,719,297. The length of telegraph lines in 1900 was 37,584, with 58,626 miles of wire. The postal traffic in 1899 was 242,018,000 pieces of mail matter; postal receipts, $17,492,395; postal and telegraph expenses, $30,735,570.

Political Affairs.—The old controversy between the Argentine Republic and Chile which several times they have threatened to settle with arms, regarding the limits of their territories in Patagonia, was at last by mutual agreement submitted to the arbitration of Great Britain. The agreement was concluded on Sept. 22, 1898, and the British Government appointed the boundary commissioners, but before they could begin their task differences arose as to the basis of arbitration and each government sought to impose conditions. To improve their respective cases Argentina promoted emigration into parts of the territory in controversy and in other parts Chile constructed roads, though both had agreed to preserve the status quo. Negotiations were continued, and in 1900 the arbitration was suspended. After the breach Chile made fresh proposals, which were amended by the Argentine Republic, and in this shape were accepted by Chile. The convention was signed by the plenipotentiaries on Dec. 25, 1901; but even then the Argentine Republic declined to adhere to a provision in the protocol requiring each contestant to withdraw all police from the disputed territory. The chief points of the protocol were: (1) Chile renounced the contention that the existence of artificial roads in Ultima Esperanza, one of the regions in dispute, was a proof of continued occupation; (2) the Argentine Republic and Chile both agreed to retire their police from the disputed district; (3) the disputed district would, pending arbitration, be guarded in such way as the Argentine Republic and Chile should mutually agree; (4) difficulties arising in the course of negotiations for such agreement should be referred for immediate decision to the British arbitrators. The Argentine Government consented to withdraw its police from Ultima Esperanza on receiving an assurance from Valparaiso safeguarding the rights that Chile was believed to have infringed. The act submitting the whole matter to British arbitration was finally signed at Buenos Ayres on Jan. 6, 1902. The dispute as to the ownership of Patagonia first arose in 1843 when Chilean imports of seal and walrus oil at the seaport of Punta Arenas on Magellan Straits and laid claim to the whole interior. The Argentine Republic protested against the presence of the Chileans at Punta Arenas and asserted its right to all Patagonia. The controversy remained open till 1866, when a treaty was signed by which both parties agreed to accept the boundaries by which the Spanish divided the provinces when their rule ceased in 1810. Such official Spanish delimitation could not be found; but there were old maps in which Patagonia was marked as Chilean territory, and accordingly Chile asserted a claim to the entire country. The Argentine Republic did not recognize this claim, but took no steps to establish its own alleged rights until Chile became involved in a war with Peru and Bolivia, when, as the price of non-intervention the Argentine Government exacted from Chile a treaty dividing Patagonia. The line of division was drawn along the line running along the highest peaks of the Andes, which divide the watershed. The highest peaks are near the western coast; the main range of the Cordilleras carried on the Patagonian coast, forms the water-parting, runs through the middle of Patagonia. The treaty of 1881 was drafted without the advice of geographical experts and without knowledge of the existing international boundaries. The Chileans construed it as giving to Chile the main western watershed, and drew the line at the principal divide of the waters. The Argentines took the crest of the great chain of the Andes that was thrown up in a later geological period as the boundary, and assigned to Chile only the steep Pacific slope. Col. Sir Thomas Hungerford Holdich, one of the appointed commissioners, went to South America soon after the protocol was signed to explore with a staff of assistants the territories in question. The boundary post at San Francisco south of the Puno de Atacama, the district which United States Minister Buchanan awarded to the Argentine Republic, had to be fixed by the British commissioners as well as the frontier in Patagonia, where the districts of Lake Lacar and the Argentine settlement of 26 de Octubre needed special examination. A treaty was signed at Ultima Esperanza and the territory between Lake Nahuel Huapi and 52° of south latitude. The basins of these Patagonian lakes are claimed by
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The development of the disputed Rectangle as far as it has gone so far, has been accomplished thus far mainly by Argentinians, to whom the country is more accessible than to the dwellers beyond the Impassable Andes, and who have been stimulated by political motives to substantiate by actual possession their claim to the valleys of the Pacific watershed, into which, out of 9 principal ones, they have gradually intruded since 1881. While the dispute as to the conditions of arbitration and the basis of the respective claims was still acute the two governments resumed the belligerent preparations which have created financial embarrassment on both sides for many years. In 1900 an understanding was reached between President Roca and President Errazuriz of Chile not to increase further the military and naval powers of their respective countries. This private agreement ended when President Errazuriz went out of office, and was not renewed with President Riesco. The rivalry of the two nationalities for future influence and empire prompts each one to a struggle for military and naval primacy in South America and for political prestige. This struggle is not likely to end until the basic question of the boundary is settled, yet when that phase of it is past it will be unlikely that either country will go beyond its definite and distinct sphere to seek a cause of war. Chile having purchased 2 torpedo-boat destroyers and ordered an armored cruiser in the United States, the Argentine Government decided in the beginning of April to order 2 new war vessels in Italian yards, to cost $5,000,000 in gold apiece, which should be defrayed out of the general revenue in two years. This decision was in accordance with the avowed policy of the Government to maintain a marked naval superiority over Chile, which on its part adopted the policy of keeping its naval armament equal, but not superior, to that of Argentina, so that in case of arbitration involving disarmament or limitation of armaments the arbitrator would find that Chile had pursued a purely defensive policy. Such a competition involved a naval extension that could be changed only by the bankruptcy of one Government or the other. The mediation of the British representatives was offered to bring about an arrangement preventing additional constructions and diels that were being built equally between the two countries. Except upon the sea the danger of a collision between the war forces of the two republics is remote, the two being far removed from each other, because the great Andean chain forms an effective obstacle against a direct military invasion from either side. The total expenditure for naval construction incurred by the Argentine Government amounted to $30,000,000 in currency, which it was proposed to distribute over three years in equal portions. To meet this extraordinary demand a part of the money was to be obtained from the National Bank, which was in liquidation, and the remainder to be raised by contributions from lotteries, a duty on real-estate transactions, and some increase in internal taxes. At the time when the two additional armored cruisers were ordered there were 2 already building in Italy, to be ready for sea in September, 1903. The total cost of the 4 cruisers is close upon $25,000,000 in gold, and they entail heavy annual disbursements for maintenance. Chile endeavored to exact from the Argentine Government a declaration that it would in no event intervene in affairs on the Pacific coast. By giving moral support to the contentions of Peru and Bolivia in their disputes with Chile regarding the restored possession of Isabella of the Santa, Argentina has to some extent undermined Chilean influence in those countries, where Argentina will not grant to her rival a free hand that would make Chile the dominant political power in South America. Political primacy and domination of the continent is the prize for which the rival powers may wager a conflict that would permanently humble and weaken the loser and result in the destruction of one navy or the other, the payment of a heavy money indemnity, the annexation of the whole of Patagonia by the victorious power, and in the event of Argentinian success the restoration to Peru and Bolivia of the ports and nitrate fields seized by Chile in 1879.

The Argentine Government refused to give a pledge to maintain absolute neutrality in existing and future questions on the Pacific coast, but gave an assurance that it had no wish to intervene in affairs on the Pacific, provided Chile fulfills her treaty obligations toward Peru and Bolivia. The Minister of Foreign Affairs died suddenly on May 5, and Valentín Virasoro was appointed to fill the vacancy on May 8. The Minister of Finance expected the ordinary revenue to be sufficient to cover expenditure and further reduce the floating debt. Additional taxation expected articles of luxury, not those of prime necessity, and unless extraordinary expenditure occurred it would not be enforced. Regulations were issued requiring statements to be made to consuls regarding the country of origin and the cost of manufacture of goods shipped to Argentina, but on complaint of merchants that these were vexatious they were recalled. Both the Argentine Republic and Chile had made preparations of such warlike character that an outbreak of hostilities might occur after the award of the arbitration tribunal. The Peruvian question might be the cause, but in any event the work of the boundary commission would have gone for naught. Therefore the British representatives conveyed a hint that unless means were taken to prevent the bankruptcy of the Argentine Republic, there was some chance that the Emperor of the Argentine Republic would withdraw from the dispute. A treaty was drawn up the preamble of which contained declarations of the Argentine minister to Chile, and treaties which were accepted by the Chilean Government as a pledge not to disturb its possession of the Peruvian and Bolivian territories occupied by the Peruvian Government, which were accepted by the Argentine Government as a pledge not to disturb its possession of the Peruvian and Bolivian territories occupied by the Peruvian Government, which were accepted by the Argentine Government as a promise on the part of the Peruvian Government to seek further territorial aggrandizement. A protocol constituting King Edward of England general arbitrator, one for the cessation of existing orders for ships and for the equalization of armaments within twelve months, and one recognizing the principle of non-interference with the existing boundaries of the neighboring republics, Chile to retain all rights conferred by treaties, were signed on May 27 at Santiago, and on May 28 a treaty of general arbitration in case of future difficulties was signed, also a protocol for the limitation of naval armaments and one for the demarcation of the frontier after the award of the arbitration tribunal by a technical commission to be appointed by the arbitrator. The first article of the treaty of general arbitration binds the contracting parties bind themselves to submit to arbitration every difficulty or question of whatever nature that may arise between them, pro-
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vided such questions do not affect the precepts of the respective constitutions of the two countries, and that they be settled through direct negotiations. The exception of questions affecting the constitutions of the republics may be made to cover almost any question in which national ambition or animosity finds a cause of war. This is, however, a necessary legal restriction of arbitration when adopted by constitutional governments, although a similar clause was delayed for several years, the ratification of the treaty of arbitration between the Argentine Republic and Italy. The British Government has been particularly interested in the preservation of peace between the Argentine Republic and Chile on account of the amount of British capital stated in both countries. In the Argentine Republic, aside from government securities, there are nearly £193,000,000 of foreign money invested, about 75 per cent. of it English, and in Chile the proportion of British capital is larger. The agreements were approved by the Senates of the two republics without much discussion, but, in both Houses of Representatives there was a cavil and obstruction, but not enough opposition to prevent their acceptance after a further intercalation. In this agreement to the limitation of armaments on receiving a distinct assurance that the Argentine policy was one of absolute neutrality in questions on the Pacific coast. The last formally authenticated act of the United States was that of September 22, 1895, in breaking the embargo by a treaty signed on July 31. The Argentine Chamber approved the agreements without modification, and on Aug. 12, 1895, the Chilean Chamber.

Besides high taxation, necessitated by the war-like preparations that have been carried on intermittently for ten years, the failure of civil and criminal justice in Argentina operated to deter enterprise and depress the economic situation. President Roca, in his message to Congress, said that the standard of the judiciary had degenerated through a quarter of a century without any determination being shown on the part of the Legislature to mitigate this crying evil. The system of indirect taxation by which the bulk of the burden is laid on the poorer classes. Thousands of immigrants have left Argentina where they found how difficult it is to make a living. Land taxation is of the highest degree, and a result is that great blocks of fertile land lie unimproved and uncultivated. A transitory cause of economic depression in 1902 was the failure of the harvest in 3 great provinces. Notwithstanding the agreement with Chile to restrict armaments, the budget called for a national expenditure of $7,000,000, reckoned in gold, besides $25,000,000 of provincial expenditures and the municipal charges. The grain harvest in Argentina is always uncertain. In 1900 the wheat exports were 2,900,000 tons, in 1901 only 1,000,000 tons, and in 1902 they dropped to 600,000 tons. Minor causes which aggravated the economic crisis were the closure of British ports to Argentine sheep and cattle, overproduction of sugar in Tucuman, and an excessive crop of grapes in Mendoza and San Juan. Quarantine restrictions between the Argentine Republic and Brazil also tended to hinder trade. The revenue fell off until the Government was confronted with a shortage of money. In framing the budget for 1903 the Government made a retrenchment of $16,500,000 on the finance bill for 1902 and reduced taxation by $15,000,000, chiefly in order to meet unforeseen expenditure the National Bank, which owes the Government $50,000,000, placed $5,000,000 of its bonds in the hands of the Government.

ARIZONA. (See under United States.)

ARKANSAS. (See under United States.)

ASTRONOMICAL PROGRESS IN 1902. 35

The astronomical discoveries of the year (from October to October) have in some respects surpassed those of any of its predecessors, characterized by great activity, especially in the departments of variable stars and spectroscopic binaries.

In looking over the year's work, one is confronted with the fact that, though astronomy is the oldest of the sciences, it is still in the experimental stage, and probably will be for centuries. The impressive fact must constantly be borne in mind by the reader that he is standing face to face with numbers, magnitudes, velocities, and distances which no stretch of thought can comprehend. All countries that possess the means for astronomical research made gratifying progress during the year, and this is emphatically true of the United States.

Daylight Astronomy.—This is exemplified only in observing the Sun, about which astronomers know but little. When his disk is observed with a telescope of contrasted aperture, the eye is protected against his terribly penetrating heat and light by colored glass and other devices, it presents a mosaic of pores, spots, faculae, and coronas; and when his disc is completely covered by the Moon during a total eclipse the chromosphere, prominences, streamers, and Bailey's heads, all of which bid defiance to investigation. We are no wiser than we were the ancient astronomers as to the cause of these phenomena. All we know is that he rotates on his axis in about twenty-six days, and has also a motion of translation, whether tangential or orbital is unknown. This progressive motion was immediately inferred when his rotation was known. This hypothesis has been confirmed by both telescope and spectroscopy. In our age the direction is toward the constellation Hercules, but the center around which the Sun and planets and satellites are revolving is unknown. This motion is about fifteen miles a second. A new result in this is that it would have been, after the lapse of a few centuries to produce a perceptible change in the appearance of stars and constellations. The point toward which we are now moving is in a condition in which great blocks of fertile land lie unimproved, and cultivated. A transitory cause of economic depression in 1902 was the failure of the harvest in 3 great provinces. Notwithstanding the agreement with Chile to restrict armaments, the budget called for a national expenditure of $7,000,000, reckoned in gold, besides $25,000,000 of provincial expenditures and the municipal charges. The grain harvest in Argentina is always uncertain. In 1900 the wheat exports were 2,900,000 tons, in 1901 only 1,000,000 tons, and in 1902 they dropped to 600,000 tons. Minor causes which aggravated the economic crisis were the closure of British ports to Argentine sheep and cattle, overproduction of sugar in Tucuman, and an excessive crop of grapes in Mendoza and San Juan. Quarantine restrictions between the Argentine Republic and Brazil also tended to hinder trade. The revenue fell off until the Government was confronted with a shortage of money. In framing the budget for 1903 the Government made a retrenchment of $16,500,000 on the finance bill for 1902 and reduced taxation by $15,000,000, chiefly in order to meet unforeseen expenditure the National Bank, which owes the Government $50,000,000, placed $5,000,000 of its bonds in the hands of the Government.

The three most trustworthy determinations of the present solar apex are as follows: New-
Astronomical Progress in 1902.

Comb, right ascension 18h 28m, declination north 35°, or near Alpha Lyra. Kapteyn, right ascension 16h 39m +20°, brightness 9.2. Campbell 18h 28m +20°; velocity 12.4 miles a second.

To elucidate the spectroscopic process by which it is hoped the direction of the Sun's motion may be determined, the following facts must be borne in mind. If a star is not moving toward or from the solar system, or we toward or from the star, the spectral lines of hydrogen, sodium, iron, etc., will occupy precisely the same positions that are experimentally observed in the chemist's laboratory. If the lines in the spectrum of the star occupy positions slightly toward the red end of the spectrum, that star is either moving from the Earth or the Earth from the star, or both from each other. On the other hand, if all the lines are moved slightly toward the violet, that star is either moving toward the Earth or the Earth toward the star, or both toward each other. If the lines from all the stars in a certain region of the sky are moved toward the violet, it furnishes strong evidence that the Sun with his family of planets is moving in that direction, or that all the stars in the region are moving in our direction—an improbable supposition.

If the spectral lines from stars in a certain direction are moved toward the violet, the theory demands that the lines from stars in the opposite direction will be moved toward the red. Prof. See thinks this may be the case.

The Zodiacal Light.—The cause of this strange light is one of the most inexplicable mysteries of the heavens. It is very doubtful if its cause will ever be explained; perhaps, however, to announce that it is beginning to attract the attention it deserves. For its investigation no instrument, unless it be the spectroscopic, can be used. Though the area of the light is large, it is too faint for telescopic observation, and the hope that the spectroscopic can deal intelligently with it is almost a forlorn one. So faint is it that the light from the planets Venus and Jupiter are sufficient to obliterate it. It is also too faint to attract popular attention, but no one less necessary to be investigated. It is a broad beam of light seen in the west above the place where the Sun has set as soon as twilight is ended, and in the morning sky before dawn appears. It is conical, 25 degrees broad at the base, and often near the zenith, where it narrows to a blunt point. Some observers think they have seen it extend from horizon to horizon. In some countries it is seen only during the 3 spring and autumn months, in the west in spring, and in the east in autumn. This, if true, is an important fact associated with the meteoric-ring hypothesis. At the Lowe Observatory, in southern California, 3,500 feet above tide-water, it is visible the year round in the west; but, owing to obstruction by the San Gabriel mountains, it is never seen in the east except from the top of Mount Lowe, one of its highest peaks.

Several plausible theories have been advanced to explain the cause of this light, but in the writer's opinion they are not worth recording. The writer is of the opinion that the zodiacal light is due to the reflection of sunlight from the coma of tails of comets. No comet gathers its tail to itself, but as a part, a large part, of the process has been going on since the creation. This hypothesis demands that the cometic ring extend far beyond the earth, if not to Neptune's orbit, its diameter being 500,000 miles.

The Gegenschein is another mysterious light, in several respects more so than the zodiacal light, with which it seems to be associated. Prof. Barnard has made it a systematic study for fifteen years. He finds that it exactly opposes the Sun, therefore on the meridian at midnight. He has traced what he calls the zodiacal band, extending from it to the evening and morning zodiacal cones, 3 or 4 degrees broad, and it can be seen, except where it crosses the Milky Way, in June and December. The writer never saw it in New York, but in California was surprised at its brilliance.

Mercury.—The exact diameter of Mercury has always been considered beyond the limits of accurate measurement. Recently, from a long series of micrometer determinations with the 2-inch telescope at the Naval Observatory, Prof. T. J. J. See has deduced a mean diameter of 5.9895, with a probable error of only 0.0096. There was no appearance of an atmosphere or evidence of any markings on his disk. This gives the diameter of the planet about 3,000 miles.

Jupiter.—Prof. See has recently completed a series of daylight observations to determine more reliable values of Jupiter's diameter with the same telescope. They were made when he was at the distance of 5.20 (the Earth's distance from the Sun being 1) with the following result: Equatorial diameter 37.646°, polar 35.222°, corresponding to 88,151 and 82,473 miles respectively. Since last report Prof. See has subjected Saturn and his rings to a long series of micrometric measurements with the following results: Equatorial by night, 76,586; by daylight, 74,172. External diameter of rings, 121,848. External diameter of dusky ring, 111,969 miles respectively.

Bolides.—Since the last report several of these strange celestial visitors have suddenly appeared and as suddenly vanished—where from and where gone is a fathomless mystery. They are also called fire-balls and meteors. That they are identical with the fall of meteoric stones is generally conceded; but that they are even remotely connected with what are called shooting stars is in the highest degree improbable. During the month of November, 1833, and the 14th in 1866 a bolide was seen, though countless millions of the microscopic meteors were seen over a large portion of the earth. Neither has ever been seen to reach the Earth. The writer well remembers the celebrated one of 1860. In Niagara County, New York, he rose to give a lecture, when instantly the room was lighted to the brilliance of a sunny day, and the light disappeared as quickly as a flash of lightning. It was first seen in Colorado in broad daylight, and last seen over the Atlantic Ocean. Whether it ever reached the Earth is not known. Its velocity was from 12 to 15 miles a second.

The object in calling the reader's attention to this subject is to describe the appearances of 3, among several others, on as many different dates which have appeared in the past twelve months. On Dec. 16, 1901, a remarkably bright one was seen in England, in the constellation of Perseus. It moved north almost at a right angle to the ecliptic, and disappeared beneath the pole-star. On Nov. 13, 1901, one was visible over a large portion of, and the path remained visible a short time when a dotted streak of light appeared, finally assuming a faint nebulous cloud. The most remarkable of the three passed over the west coast of New South Wales at 9th 35m., rising on Jan. 7, 1902, visible over a region 300 miles in length. It first appeared in the con-
Astronomical Progress in 1902.

The ring completes a revolution round the Sun in about thirty-three years and a quarter, thus causing the Earth to pass through it every year in a new place, and once in about thirty-three years through the dense place. The shower in 1833 surpassed all its predecessors.

Prof. W. H. Pickering says that the observation of the Leonids, as the shower is called, appears to indicate that the 33.25 year period must be abandoned, on the ground that since 1098 the length of the period has been thirty-four years. Remembering that brilliant displays were seen in 905, 1002, 1022, and 1062, it seems possible that it will yet return in November, 1902, but unfortunately there will be a full moon. If it does appear it will be just one thousand years since it was first recorded in history.

Another notable shower of meteors occurs every year on Aug. 10 whose elements agree with those of Swift's comet of 1862, having a period of one hundred and twenty-three years. A fine display was seen in Europe on Aug. 10, 1902. They are called Perseids, because they appear to radiate from the constellation Perseus.

Distances of the Stars.—The grandest and most difficult problem man ever attempted to solve is to ascertain the distance of a few of the brighter stars. The problem has not yet been solved with the desired accuracy. One element of doubt is the Sun's distance from the Earth, which has engaged the attention of astronomers for at least three thousand years. The procedure resorted to is briefly as follows: The velocity of light is assumed to be 180,000 miles a second, as a year contains 31,556,926 seconds, the product of these two numbers will give the number of miles corresponding to a "light year." A star having a parallax of 1" is distant 3.26 light years. The parallaxes of the stars, however, are, with perhaps a single exception, much less, and the less this is the greater its distance. If the light year of a star having a parallax of 1" be divided by the assumed parallax of any other star the result gives the distance in light years. Suppose the parallax of the star to be 0.5", then \( \frac{1}{0.5} = 0.65 \) years—that is, the light has been more than six years in reaching us, moving at a velocity equal to seven times round the Earth in one second. The nearest known star is Alpha Centauri, whose parallax is not quite 1". It is distant about 3.3 light years. All this, however, depends on the correctness of the computation of the parallax, an assumption seldom if ever trustworthy. The following list comprises the best determination:

<table>
<thead>
<tr>
<th>STARS</th>
<th>Parallax</th>
<th>Light years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog-star</td>
<td>0.30&quot;</td>
<td>3.3</td>
</tr>
<tr>
<td>Procyn</td>
<td>0.27</td>
<td>3.3</td>
</tr>
<tr>
<td>Groombridge, 1800</td>
<td>0.14</td>
<td>23.4</td>
</tr>
<tr>
<td>Alpha Lyrae</td>
<td>0.10</td>
<td>30.0</td>
</tr>
<tr>
<td>Aldhezar</td>
<td>0.10</td>
<td>30.0</td>
</tr>
<tr>
<td>Capella</td>
<td>0.10</td>
<td>30.0</td>
</tr>
<tr>
<td>Pole-star</td>
<td>0.07</td>
<td>17.0</td>
</tr>
<tr>
<td>Arcturus</td>
<td>0.02</td>
<td>160</td>
</tr>
</tbody>
</table>

Proper Motion.—In common parlance the stars are called fixed stars; but, strictly speaking, there is not a fixed star in the universe. Every one is attracted and swayed by the others and in all directions. Their apparent motion, though very rapid in miles, is, from their great distance, exceedingly slow. The proper motions of several thousand have been determined with great exactness, both in right ascension and declination, and catalogued. Proper motion is not applied to motion of stars in the line of sight, as they appear absolutely stationary.
It would be natural to suppose that the brighter stars and their proper motions the greater, but this seems not to be the case, or at least it often fails. The most rapid proper motion in the sky is that of two stars invisibly to the naked eye. Groombridge 1830, a star of the sixth magnitude, has long been called the runaway star. It has a proper motion amounting to 7" a year, which would carry it around the sky in one hundred and eighty-five thousand years. Its velocity is thought to be 200 miles a second. The latest and most rapid known is that of an eighth-magnitude star in the southern sky. Its proper motion is 8" a year, or sufficient to carry it across a space apparently hidden by the diameter of the moon in two hundred and fifty years, or, in miles, round the earth in eighty-three seconds. The latest record of Groombridge 1830 is from the Lick Observatory Bulletin, No. 4, which gives the proper motion of the star as 7.05" a year. This adopted parallax of 0.14", would denote a velocity perpendicular to the line of sight of 150 miles a second. The Bulletin gives the radial velocity (in line of sight) as 59 miles a second. The above-mentioned parallax of the star gives its distance as 23½ light years. The same Bulletin confirms the variability of Delta Orionis in the line of sight, discovered by M. Dehervé. The results from three photographs are +3 kilometers a second, +51, and —69. A large variation has been discovered in the radial velocity of Omicron Persei. The range of variation in this star and in Eta Orionis are the largest yet discovered among spectroscopic binaries with one dark component. The well-known Algol variable Delta Librae exhibits a considerable variation in the line of sight, proving that it is a double star, which has never been seen with a component. Ten spectrographs of the dog-star were obtained between December, 1901, and March, 1902. The value, combined with others previously made, gives its parallax as 0.21", making its distance in light years nearly twice as great as was formerly supposed.

**Binary Stars.**—Recently 300 binary systems have been discovered. This work is still progressing and many more may be engaged in it. The sky is covered with them, but they were never suspected until the invention of the spectrooscope and the application of photography.

Binary stars are divided into three classes: 1. Telescopic, where both components are visible. 2. Spectroscopic, where only one is seen, the other being too close to be visible in any telescope, but both being bright and each giving a spectrum. 3. This class of binary stars, unlike those of No. 2, give but one spectrum, one component being incapable of giving a spectrum. Stars of No. 1 are both seen with the telescope to revolve round each other, but always in a plane perpendicular, or nearly so, to the line of sight. The spectral lines of the approaching star will all be slightly moved toward the violet end of the spectrum, and those from the receding star toward the red, thus causing the lines of hydrogen, sodium, helium, iron, etc., from each star to be vividly and broadly, and double, and vice versa. When there is no to-and-fro motion the lines are single. The behavior of stars of the third class is quite unlike those of No. 2. If the star is single or a binary with one component dark. If it is single its spectral lines will never move or be double, but if it is a binary the lines will be seen to vibrate periodically toward the red and the violet. The dark sun revolving round the bright one periodically sways the bright one to and fro by its attraction.

If the reader will turn back a few lines and re-read what is said about the radial motions of Delta Orionis, Omicron Persei, Eta Orionis, and Delta Librae, he will be able to comprehend how the periodic motions of stars to and from the Earth is ascertained. The following is a list of a few recently discovered stars moving in the line of sight:

<table>
<thead>
<tr>
<th>Star Name</th>
<th>Declination</th>
<th>Right Ascension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha Ursa Majoris</td>
<td>104.0°</td>
<td>14.0°</td>
</tr>
<tr>
<td>Omicron Leonis</td>
<td>14.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Kappa Pegasi</td>
<td>9.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Zeta Geminorum</td>
<td>8.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Delta Cephei</td>
<td>5.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Delta Virginis</td>
<td>4.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Alpha Scorpii</td>
<td>4.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Alpha Ursa Minoris</td>
<td>3.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Alpha Geminorum</td>
<td>2.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Alpha 2 Geminorum</td>
<td>1.9°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Delta Orionis</td>
<td>1.9°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Mu Scorpii</td>
<td>1.9°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Alpha 1 Scorpii</td>
<td>0.0°</td>
<td>6.0°</td>
</tr>
<tr>
<td>Iota Pegasi</td>
<td>0.0°</td>
<td>6.0°</td>
</tr>
</tbody>
</table>

Y Lynæs | 12.8° | 6.8° |

The discovery of radial motion in the trigonometric system of the pole-star excites the admiration of all who are able to appreciate its significance. Prof. W. W. Campbell, director of the Lick Observatory, has, from observation secured since 1899, shown that the velocity of the center of mass of the binary has varied from —11.8 kilometers a second in 1899 to about —13.5 kilometers a second at the present time. It varied from —18.0 a second in 1896 to —11.8 a second in 1899. A reversal has therefore taken place. The period of the binary system 24° 230° 14.3° deduced in 1899 satisfies recent observations.

The pole-star has a companion visible through small telescopes, and was formerly considered a telescopic binary. Lately the spectrocope has determined the faint telescopic component to be a spectroscopic binary with a period of about fifteen years.

Much interest attaches to Mizar, which is a telescopic binary and a spectroscopic trinary. It is the middle star in the handle of the Great Dipper. From observations made in March and April, 1901, W. W. Campbell estimates that one star in every five or six is a spectroscopic binary, yet up to the present time not more than 40 are known.

Five Algol stars—viz., Y Lupus, X Carinae, RR Centauri, Beta Lyrae, and U Pegasi—revolve with their components in contact.

**Nebulæ.**—Since Sir William Herschel's day many thousand nebule have been discovered. They are now searched for by photography, which by long exposure reveals what no visual telescope can. At the Paris Observatory 23 new ones have recently been discovered, and many at the Cape Observatory and at the Arecipa station of Harvard College Observatory in Peru, and a great many have been discovered that escaped the eyes of Sir John Herschel and others. One of those discovered at the Cape was by one hour's exposure depicted on a photograph plate. In fact, it is a double, consisting of two spindle-shaped nebulae side by side, or one right over the other in one place only. This was previously discovered at Arecipa.
Dr. Hartmann, in a Berlin astronomical publication of Feb. 27, 1902, describes experiments made with the Potsdam photographic refractor, with two different spectroscopes, one having a flat-glass prism of 60° and 3 of 63°. The exposures were from 2700 to 27,000. The velocity of the nebula, General Catalogue, 4590, was first determined from measurements of the line Hα and Hγ, which were very satisfactory. Their motions in the line of sight were:

\[
\begin{align*}
G. C. & = 4590 = 10.5 \text{ kilometers a second.} \\
4590 & = 40.6 \\
\text{New} & = 7037 + 4.9
\end{align*}
\]

The great nebula in Orion has been subjected to a similar spectrographic analysis, and the result indicates a motion in the line of sight by using the Hα and Hγ, amounting to + 6, + 43, and + 28 kilometers a second. The results of measures made by three experts are, as might be expected, somewhat discordant, because of the faintness of the nebula.

**Double Stars.**—During the past one hundred years the search for double stars has been systematic, and determinations of their positions have constituted an important division of sidereal research. In the past thirty years 4000 double stars have been discovered, all by a few astronomers. In 1902 several hundred new ones were found. Nearly 12,000 double stars are now known.

If two stars are found by the telescope to be excessively close to each other, in which after several years a slight motion of the pair is observed, the same is called an optically double. If motion of revolution is detected, it is called a binary. A few trinary systems are known, of which the

tele-star is an example. Prof. Hussey, of the Lick Observatory, has discovered that Burnham's double star 168 is a trinary, one component being an exceedingly close double, the distance being less than 0.4". The companion is a spectroscopic double, which, however, not visible to the telescope. The telescope sees two, the spectroscopic deals with three. The following short list includes a few of the most interesting spectroscopic binaries, of which 400 are known:

<table>
<thead>
<tr>
<th>Name</th>
<th>Period of Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnard 888</td>
<td>5,5 years. Shortest known.</td>
</tr>
<tr>
<td>Kapteyn Pegasi</td>
<td>114</td>
</tr>
<tr>
<td>Delta Cereri</td>
<td>27</td>
</tr>
<tr>
<td>Zeta Herculis</td>
<td>40</td>
</tr>
<tr>
<td>Procyon</td>
<td>56.8</td>
</tr>
<tr>
<td>Sirius, dog-star</td>
<td>56.8</td>
</tr>
<tr>
<td>Xi Ursae Majoris</td>
<td>61</td>
</tr>
<tr>
<td>Alpha Centauri</td>
<td>81</td>
</tr>
<tr>
<td>70 Ursae Borealis</td>
<td>94</td>
</tr>
<tr>
<td>Gamma Virginis</td>
<td>200</td>
</tr>
<tr>
<td>Gamma Leonis</td>
<td>400</td>
</tr>
<tr>
<td>Capella</td>
<td>10,000</td>
</tr>
<tr>
<td>Zeta Aquarii</td>
<td>1,000</td>
</tr>
</tbody>
</table>

The vast difference between the periods of the first and last will not escape notice. To separate members of the double stars, eye-pieces magnifying from 1,000 to 5,000 diameters are used. Prof. Hussey, examining some well-known double stars, found 5 of them triple, 4 as close as 0.9", and one only 0.9", the closest spectroscopic binaries yet discovered.

A large variation is shown in motion in line of sight of Omicron Persei. Its range of variations was found to be 1". The refractor, however, discovered among spectroscopic binaries that have a dark component. The well-known Algol variable Delta Librae also exhibits considerable variation in radial velocity. Ten spectra of the equinoctial system were obtained between December, 1901, and March, 1902, which give for the epoch 1902.06 a velocity in line of sight of — 6.57 kilometers a second. This result, combined with that obtained by Vogel and Strömgren, — 10.6, for the epoch of 1890.09, gives a parallax of 0.21" for the system. Gill's value from heliometer measures is 0.37". The following are moving the most rapidly:

**TOWARDS THE EARTH**

<table>
<thead>
<tr>
<th>Name</th>
<th>Distance to Earth</th>
<th>Period of Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arcturus</td>
<td>55</td>
<td>Dog-star</td>
</tr>
<tr>
<td>Alpha Lyrae</td>
<td>40</td>
<td>Castor</td>
</tr>
<tr>
<td>Alpha Cygni</td>
<td>40</td>
<td>Alpha Orionis</td>
</tr>
<tr>
<td>Beta Ophiuchi</td>
<td>60</td>
<td>Aldebaran</td>
</tr>
<tr>
<td>Alpha Ursae Majoris</td>
<td>60</td>
<td>Gamma Leonis</td>
</tr>
</tbody>
</table>

**Comets.**—There was a dearth of comets in 1902, contrasting strangely with the number (10) seen a few years ago. Comet (a) was discovered by Prof. Brooks at Smith Observatory, Geneva, N. Y., April 14, in the constellation Pegasus, and in the same telescopic field as was that of Feb. 23, 1883, also discovered by him. The position and rate of motion were such that it was constantly in the Sun's twilight. The few observations made indicated that it was moving in a parabolic orbit, at a time interval of the first and last time. Comet (b) was discovered on July 22 by John Grigg, of New Zealand, but, from places too roughly givin and long delay by mail, it was not seen elsewhere. Comet (c) was discovered by Prof. C. D. Perrine at the Lick Observatory on Sept. 1. It was very faint, about 4° in diameter with a tail 30° in length. Its discovery place was right ascension 214° 17′ 49′, declination north 34° 38′ 47′, or in the constellation Perseus.

A finding ephemeris of Swift's comet 1895 II is published, and astronomers are searching for it by both photography and telescope, with but little prospect of success, its position relative to the Sun and Earth being unfavorable for visibility. It occasionally makes the nearest approach to Jupiter of any of the periodic. When this event next occurs its orbit will be greatly changed, perhaps to a very long period, or even to a parabola. Mr. Schulhof estimates the uncertainty of the time of perihelion passage at only three days.

Among the comets that have returned to perihelion unobserved is Finlay's of 1886, an especially interesting one from its supposed connection with Lexell's comet. E. Swift's comet, having a period of 5,855 years, has also returned without detection, much to the disappointment of astronomers, as there is some reason for supposing it to be identical with Di Vico'slost comet. One of Barnard's comets is also in the same category, having escaped detection at two apparitions.

**Minor Planets.**—The search for these bodies (called also asteroids and planetoids) is still prosecuted with vigor, resulting as heretofore in their rapid discovery, but more especially since the employment of photography. It is supposed that nearly all as bright as the tenth magnitude have been discovered. Their diameters in miles vary through wide limits. The mean diameter of the four largest—Ceres, Pallas, Juno, and Vesta—according to Prof. Barnard, is 285 miles. Ceres is the largest of the whole family, 477 miles. The smallest, as measured in No. 435, the celebrated Eros, 15 to 20 miles.

Minor planets are not searched for all over the sky, as are comets, but at certain declinations of the equator. The following have been discovered since the last report:
Astronomical Progress in 1909.

No. 526, Natalia, was discovered by the late Prof. Keeler in 1890, with a 3-foot reflector. It is the faintest of all the family, and is of the twentieth magnitude.

Nearly 30 others have provisional letters assigned to them, some of which, no doubt, will be found to be identical with some previously discovered. A few have been seen but once, so provisional numbers were withheld until further investigation. It is safe to assume that 600 of these little worlds have been discovered. The most distant of the minor planets is 279 Thule. The nearest is 435, Eros, which occasionally approaches nearer to the Earth than any heavenly body except the Moon.

No. 475, Ocillo, has a southern declination of 61°. Its daily orbital motion amounts to the enormous sum of 2,300"; or did when in perihelion, and it is the nearest to the Sun of any of the family except Eros. It was found depicted on a photographic plate by Steward, at the Harvard College Observatory at Arequipa, Peru.

Variable Stars.—The search for stars that vary in brightness is to most astronomers a pleasing pastime. The high interest attaching to their discovery and subsequent investigation into their periods and fluctuations in brightness has led many astronomers to devote their lives to the fascinating work. The number discovered since last report is so great and varied that amateurs have taken up the subject, as no expensive instruments are needed, and are assisting the astronomers in their further discovery and investigation.

Many explanatory theories have been advanced to account for their variation. There are three hypotheses: 1. Those that vary equally (though different for different stars) from maximum to minimum, and vice versa, varying as regularly as the changes of the Moon. This variation is called Algol variables. 2. Those that vary intermittently, or fitfully without any regard to periodicity, sometimes to invisibility. 3. Temporary stars, which burst out in an instant, surpassing even Jupiter in brilliance, as did the recent outburst in Perseus, the brightest since the notable one of 1872.

Algol variables are reasonably accounted for by supposing they are periodically occluded by an opaque object, which partially eclipses them, and this accounts for all that is observed by the telescope and spectroscope.

The hypothesis meets with general acceptance among astronomers.

To explain the cause of the fitful variables and the sudden outbursts of the temporaries no theory worth recording has been promulgated.

The number of variables now known is more than 2,500, and further discoveries are being made at a rapid rate. One astronomer asserts that one star of every four is a variable. The statement seems extravagant, but he doubtless included the minute spectroscopic variation of many, caused by their slight motion to and from the earth in the line of sight. In their discovery and the investigation into the cause of their variation photography is doing good work, of which the following is one example among hundreds: Prof. E. C. Pickering, describing the discovery of a remarkable variable star, says in Circular No. 65, it was found that a photograph on glass of the region in which Brooks's comet was discovered on April 14, 1902, had been taken at the Harvard Observatory on April 5. This was superposed on another taken on March 7, 1900, resulting in the discovery of a new variable of the Algol type in R. A. 21° 55.2", declination north 43° 52'. The true period of the new variable is about 31.304 days. It retains its full brightness for twenty-eight days, its photographic magnitude at maximum being 8.8. About a day before minimum it begins to diminish, attaining the magnitude 9.0 at 1.03" before minimum. 9.5 at 0.94", 10.0 magnitude at 0.84", 10.5 at 0.71", 11.0 at 0.56", and 11.5 at 0.42".

The light remains nearly constant for more than half a day, with the minimum magnitude 11.6. The period of the variable is more than three times that of any other yet discovered, and the duration of minimum (two days) is double that of S Cenari, the next in length. These results have been obtained from an examination of 388 plates, taken between 1868 and 1877.

Prof. Robert Innes, in his revision of the Cape catalogue, discovered 4 new variables, all, in one respect at least, very interesting. One designated 29, 1900, Appodia, varies from 5.6 magnitude to invisibility. Its period has not been ascertained, but the periods of the other three are from three hundred and sixty to four hundred days, and they diminish in brilliance to invisibility, suffering periodically a total eclipse.

Dr. Anderson, who makes the discovery of variables a special line of work, calls another new one 77, 1901, Herculis. Soon afterward A. Stanley Williams discovered one with the designation 78, 1901, Cygni. It is of the Algol type. Its normal brightness is tenth magnitude, but after 3° 2" it diminishes to the twelfth, at which it remains for fifty minutes. In 4° 10" it recovers its usual brightness.

Harvard College Observatory Circular No. 54 gives a list of 64 new variables, the greater part being southern stars discovered by the presence of bright hydrogen lines in their photographed spectra.

Mira Ceti is considered the most remarkable of all the variables. It was discovered to be a variable star more than three hundred years ago. When at its maximum brightness it shines as a second-magnitude star, but it dwindles down to the 9th magnitude. Recent investigation shows that it is not an Algol star. In the little globular cluster surrounding Omega Centauri 125 variables are visible. Omega itself being one of them, with a period of only six hours and twelve minutes. Another remarkable variable is Eta Argus, often invisible to the naked eye, but in 1836 and 1843 it surpassed in brightness every star in the sky except Sirius. The shortest known variable is U Pegasus = 4° 28" 8', the longest is R Carinae = thirty-seven or thirty-eight years.

Stellar Photography.—Prof. E. C. Pickering has for many years been taking celestial photographs. He has a library of glass, so to speak, of more than 30,000 plates, all numbered, dated and their right ascensions recorded, packed away in the order of right ascension, so that a plate of any locality in the sky can be found in a moment. In his fifty-sixth annual report for 1901 is the statement that the number of
photographs taken with the several telescopes and the use of plates 29,908. The annual production is about 5,000. In the examination of these plates Mrs. Fleming recently discovered two new variables, three stars having peculiar spectra, and the presence of bright lines of hydrogen in the spectrum of U Andromeda. By examination of the plates of the region of the new temporary star in Perseus it was ascertained that if the star existed two days before its sudden outburst it must have been fainter than the twelfth magnitude.

One of the marvels of celestial photography which transcends what we are accustomed to see in astronomy is the rapid formation of the nebulosity ring surrounding the new temporary star Nova Persei. Assuming its parallax to be 0.5" and the radius of the ring as photographed at the Yerkes Observatory to be 6", it results that the radius must be 66,000,000,000 miles, and formed at the rate of 6,000 miles a second.

A Gift.—Prof. Pickering, director of Harvard Observatory, has received an anonymous gift of $20,000 for the benefit of the observatory. As the donor has named no restrictions, the director proposes to do with half of it in erecting a wing to accommodate the rapidly increasing stock of negatives and astronomical books. The building is to be fire-proof and of a size to hold the plates that will accumulate in many years.

Prizes.—The gold medal annually given by the Royal Astronomical Society of England has been bestowed on Prof. J. C. Kapteyn, of Holland, for his paper on the existence of the central group of stars. The Cape Catalogue, measurements of its celestial photographs and researches in stellar parallax. The Mrs. Jackson Gwilt bronze medal was awarded to Rev. Dr. Anderson for his discovery of the two Nova Auriga and Persei and many ordinary variables. Each medalist will also receive a bronze medal from the Astronomical Society of the Pacific as heretofore, including Dr. W. R. Brooks and Prof. C. F. Perrine, who will each be the recipient of the latter medal.

AUSTRALIA, COMMONWEALTH OF

A federation of the three British colonies of New South Wales, Victoria, Queensland, South Australia, Western Australia, and Tasmania, proclaimed at Sydney, New South Wales, Jan. 1, 1901, after the enabling act passed by the British Parliament on July 9, 1900, after New South Wales, Victoria, Queensland, South Australia, and Tasmania by a popular referendum had voted to federate. In August, 1900, Western Australia also decided to enter the union as an original state, for which provision was made in the act of confederation. The legislative power is vested in a Federal Parliament, consisting of a Senate of 36 members, 6 from each state, and a House of Representatives. The senators are in each state elected for six years by popular vote on a single ticket, except in Queensland, which is divided into 2 districts. One-half of the Senate is renewed every three years, but in case of a deadlock between the Senate and the House of Representatives the Senate must be dissolved and an entire new Senate elected. The number of members in the first House of Representatives is 75, of whom New South Wales elected 26; Victoria, 23; Queensland, 9; South Australia, 7; Western Australia, 5; and Tasmania, 5. The legislative period for the House of Representatives is three years unless it is prorogued. Any five members qualified in each state to vote for the popular branch of the state Legislature may vote for Senators and Representatives in the Federal Parliament, which has power to enlarge, but none to restrict, the franchise so defined. To be elected a member of either house of Parliament, one must be a natural-born British subject or naturalized for five years, a qualified elector of his own state, and a resident in the Commonwealth for three years. The states reserve all legislative powers not specifically delegated in the Constitution to the Federal Parliament, which has power to legislate on commerce, railways, shipping, lighthouses, statistics, marriage and divorce, emigration and immigration, currency, banking, weights and measures, conciliation and arbitration in industrial disputes, and certain other matters. The executive authority vested in the King is exercised by a Governor-General on the advice of a Federal Council of State. The Governor-General is the Earl of Hopetoun. The Council of Ministers appointed at the establishment of the Commonwealth was composed as follows: Prime Minister and Minister for External Affairs, E. Barton; Attorney-General, A. Deakin; Minister for Home Affairs, Sir W. J. Lyne; Treasurer, Sir George Turner; Minister of Trade and Commerce, C. C. Kingston; Minister of Defense, Sir John Forrest; Postmaster-General, J. G. Drake.

Area and Population.—The area of the states forming the Commonwealth and their population, exclusive of aborigines, according to the census of 1901 are given in the following table:

<table>
<thead>
<tr>
<th>Original State</th>
<th>Square Miles</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>810,857</td>
<td>1,262,997</td>
</tr>
<tr>
<td>Victoria</td>
<td>57,264</td>
<td>1,200,819</td>
</tr>
<tr>
<td>Queensland</td>
<td>86,497</td>
<td>466,596</td>
</tr>
<tr>
<td>South Australia</td>
<td>580,560</td>
<td>352,504</td>
</tr>
<tr>
<td>Western Australia</td>
<td>973,930</td>
<td>192,553</td>
</tr>
<tr>
<td>Tasmania</td>
<td>35,815</td>
<td>172,475</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,976,578</strong></td>
<td><strong>3,767,448</strong></td>
</tr>
</tbody>
</table>

The total population of New South Wales was 1,359,537, comprising 713,794 males and 645,743 females. This includes the aborigines, of whom there were 3,906 males and 3,244 females; total, 7,240. There were 9,750 Chinese and 1,151 half-castes. The number of Chinese arriving in 1900 was 75, while 570 departed. The immigration by sea in 1900 was 65,783, and the emigration 67,198, making the net immigration 1,585. Between 1891 and 1901 the increase of population was 227,303, the natural increase from excess of births over deaths being 229,752. The population of Victoria, according to the census of March 31, 1901, consisted of 603,903 males and 597,015 females. The annual rate of increase since 1891 was only 0.43 per cent., compared with 2.83 per cent. in the preceding decennium. The population is three times as thickly settled as in New South Wales, averaging nearly 14 persons to the square mile, and 66 of the population in towns, Melbourne having 493,956 inhabitants; Ballarat, 48,410; Bendigo, or Sandhurst, 43,112; Geelong, 23,440; Warrnambool, 6,600; Castle-
AUSTRIA, COMMONWEALTH OF.

maine, 7,900; and Stavell, 5,400. The number of immigrants who came by sea in 1900 was 82,157, comprising 53,559 males and 28,598 females. The emigration for the same year was 83,884. Since the opening of the Western Australian gold-fields there has been an excess of emigration, which was 14,547 in 1896, 6,454 in 1897, 3,789 in 1898, 1,563 in 1899, and 1,427 in 1900.

Queensland shows an annual growth in population in ten years of 2.7 per cent. The population on March 31, 1901, comprised 280,092 males and 223,174 females. There were 9,313 Chinese, including 530 females; 9,227 Polynesians, including 671 females; 930 East Indians and Cingalese, including 12 females; 1,557 males and 230 females of other colored races; and 3,902 male and 2,906 female aborigines, exclusive of those living in a migratory or savage condition. Of the three divisions of Queensland the southern contained 323,380, the central 63,919, and the northern 110,957 inhabitants. The number of immigrants in 1900 was 36,348, inclusive of 1,085 Chinese and 1,760 Pacific islanders; the number of emigrants was 55,433, inclusive of 807 Chinese and 996 Pacific islanders. In 1899 the state capital had 119,428 inhabitants on March 31, 1901, inclusive of suburbs. Charters Towers had 20,976; Rockhampton, 19,661; Townsville, 15,500; Ipswich, 15,246; Gympie, 14,431; Toowoomba, 14,087; Maryborough, 12,900.

The population of South Australia showed an increase for the ten years of 1.3 per cent per annum. It was composed of 184,432 males and 175,182 females. In the northern territory there were 4,890 persons, most of them Chinese coolies, and only 436 of them females. The population of Adelaide, the capital, was about 100,091, inclusive of suburbs. The immigration by sea in 1900 was 31,094, and emigration 30,417.

The population of Western Australia consisted of 112,004 males and 70,459 females. Perth, the capital, contained 36,190 inhabitants; Fremantle, 20,359. The population continues to increase through immigration, mainly from the older colonies. In 1900 the number of immigrants was 24,921, and of emigrants 19,921, giving a net increase of 5,000.

The annual increase of population in Tasmania between 1901 and 1901 was 1.0 per cent per annum. The population on March 31, 1901, consisted of 89,624 males and 82,561 females. Of the total population 136,629 were born in Tasmania, 12,520 in other states of Australia, 18,415 in Great Britain and Ireland, 773 in Germany, and 484 were Chinese. The number of immigrants in 1900 was 23,086. The recorded emigration was 22,574, but about 3,000 departures are believed to have been unreported. Hobart had 24,654 inhabitants in 1901; Launceston, 18,022.

The movements of population in the several states in 1900 was as follows:

<table>
<thead>
<tr>
<th>STATES</th>
<th>Marriages</th>
<th>Births</th>
<th>Deaths</th>
<th>Marriages</th>
<th>Births</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>9,006</td>
<td>92,145</td>
<td>15,118</td>
<td>9,006</td>
<td>92,145</td>
<td>15,118</td>
</tr>
<tr>
<td>Victoria</td>
<td>8,200</td>
<td>90,779</td>
<td>15,815</td>
<td>8,200</td>
<td>90,779</td>
<td>15,815</td>
</tr>
<tr>
<td>Queensland</td>
<td>3,371</td>
<td>14,901</td>
<td>5,747</td>
<td>9,064</td>
<td>9,064</td>
<td>9,064</td>
</tr>
<tr>
<td>South Australia</td>
<td>2,395</td>
<td>9,148</td>
<td>5,774</td>
<td>9,148</td>
<td>9,148</td>
<td>5,774</td>
</tr>
<tr>
<td>Western Australia</td>
<td>3,318</td>
<td>5,434</td>
<td>3,240</td>
<td>3,240</td>
<td>3,240</td>
<td>3,240</td>
</tr>
<tr>
<td>Tasmania</td>
<td>1,032</td>
<td>4,904</td>
<td>1,030</td>
<td>1,030</td>
<td>4,904</td>
<td>1,030</td>
</tr>
</tbody>
</table>

Federal Finances.—In the budget presented in the House of Representatives on Oct. 8, 1901, the revenue for the year ending March 31, 1902, was estimated at £10,330,750, and the expenditure at £9,339,743. The revenue from customs and excise was estimated at £26,909,000, of which £26,909,000 are collected on stimulants and narcotics and the balance from import duties of three kinds—fixed, ad valorem, and composite. New South Wales was expected to pay £2,360,000 of the customs and excise duties; Victoria, £2,410,000; Queensland, £1,490,000; South Australia, £265,000; Western Australia, £200,000; and Tasmania, £270,000. The remainder of the revenue is derived from the postal and defense services, yielding £2,320,750. The expenditure on Commonwealth services was estimated at £3,024,106, leaving £6,315,637 to be returned to the states, which receive severally the following amounts: New South Wales, £1,922,491; Victoria, £1,092,303; Queensland, £961,513; South Australia, £570,256; Western Australia, £656,958; Tasmania, £592,250. The receipts of the Commonwealth for the year ending June 30, 1902, were £113,304,800, of which customs and excise yielded £9,398,300, postal receipts £2,578,700, and miscellaneous sources £17,800. The expenditures of the Federal Government were £3,851,300, leaving £7,373,500 to be distributed among the states.

Commerce and Production.—The value of the foreign trade of the several states in 1900 is shown in the following table:

<table>
<thead>
<tr>
<th>STATES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>£779,561,071</td>
<td>£286,104,516</td>
</tr>
<tr>
<td>Victoria</td>
<td>15,243,516</td>
<td>17,722,400</td>
</tr>
<tr>
<td>Queensland</td>
<td>7,181,112</td>
<td>9,561,502</td>
</tr>
<tr>
<td>South Australia</td>
<td>8,094,550</td>
<td>8,035,576</td>
</tr>
<tr>
<td>Western Australia</td>
<td>5,882,118</td>
<td>5,828,024</td>
</tr>
<tr>
<td>Tasmania</td>
<td>3,072,667</td>
<td>2,601,617</td>
</tr>
</tbody>
</table>

The area cropped in New South Wales in 1901 was 1.18 per cent of the total area of the state. Few farms exceed 500 acres. The number of holdings on March 31, 1901, was 69,439, covering 46,856,577 acres which the Government had alienated, and 128,034,958 acres occupied on pastoral leases. The state allows settlers to select land for £1 an acre to be paid in instalments upon 940 acres in the eastern, and up to 2,500 acres in the central districts. The wheat-crop of 1901 was 16,173,711 bushels, from 1,530,609 acres; the corn-crop, 6,292,745 bushels, from 206,041 acres; the potato-crop, 84,505 bushels. There were 2,343,138 acres cultivated. The produce of tobacco was 1,934 per cent per cent. The area of crops, 1,184,118 tons, from 22,114 acres; of wine, 891,190 gallons, besides 11,170 gallons of brandy, from 8,441 acres of vineyards; of table fruits, 4,214 tons. There were 14,151 acres of pastures. The sheep population was 3,811,991 sheep, 1,983,116 cattle, 481,417 horses, and 256,577 hogs. The forests cover one-fourth of the state. The timber reserves and state forests is 5,946,555 acres.

The gold production of New South Wales in 1901 was 270,724 ounces, value £921,582. The quantity of silver-lead ore and metal mined in 1900 was 438,938 tons, valued at £2,513,874. Of silver 774,203 ounces, of the value of £90,243, were produced. The value of copper produced was £243,301. The quantity of coal mined in 1900 was 5,507,497 tons, valued at £1,668,911; in 1901, 5,968,426 tons, valued at £2,178,929. The wool exports in 1900 were 221,295,084 pounds, valued at £23,342,612. The value of gold coin exported was £3,389,822; of coal, £1,273,034; of frozen and preserved meat, £285,757; of hides and skins, £756,528; of tallow, £454,505; of leather, £243,500. The total imports of New South Wales in 1900 the value of £9,293,117 came from Great Britain, £11,512,085 from Australasian colonies, £1,095,154 from other British possessions, £2,357,901 from the United States,
and £2,562,154 from other foreign countries. The imports by land amounted to £3,480,085, and exports to £2,549,139. Of the total exports, £1,874,827 were home products and £2,291,026 foreign products.

Of the total area of Victoria the Government has alienated 3,200,000 acres, leaving 6,300,000 immediately available for agriculture. In 1901, the area under crops was 3,255,000 acres, and the area under grass was 1,719,000 acres for pastoral purposes. The timber and water reserves, including state forests, have an extent of 4,892,000 acres; auriferous lands, 1,544,110 acres. The area under crops in 1901 was 3,925,000 acres, of which 2,071,000 acres yielded 17,847,000 bushels of wheat, 502,000 acres yielded 67,000 tons of hay, 365,000 acres yielded 3,952,000 bushels of oats, 59,000 acres yielded 1,215,000 bushels of barley, and 39,000 acres yielded 123,000 tons of potatoes. There were 226,000 acres of meadows, 30,000 acres of vineyards, and 57,000 acres of orchard and garden. The gold output in 1900 was 607,407 ounces, valued at £3,169,628, the number of miners employed being 29,035. In 1901 the gold production was 789,562 ounces. The total value of imports in 1900 Great Britain furnished £7,055,026, Australasian colonies £5,679,200, India £465,367, Ceylon £173,392, Canada £81,858, New Zealand £338,911, and foreign countries £3,543,124, of which £1,161,880 came from the United States, £775,056 from Germany, £292,563 from Java and the Philippine Islands, £329,734 from Denmark, £302,738 from France, £199,631 from Belgium, £84,302 from China, and £180,220 from other countries. Of the total value of exports Great Britain took £918,398, Australia £2,709,310, India £216,100, Ceylon £572,574, Canada £11,000, other British possessions £1,482,423, and other foreign countries £2,600,649, of which £370,785 went to France, £239,735 to Germany, £203,245 to Belgium, £120,138 to the United States, £170,424 to China, £47,493 to Java and the Philippines, and £32,521 to other countries. The imports of wool in 1900 were £1,287,677 in value; of cotton goods, £1,041,523; of woolen goods, £707,458; of iron and steel, £293,768; of live stock, £207,904; of sugar, £260,342; of lumber, £206,173; of coal, £336,360; and of tea, £370,090. Of oil, £310,178; of all other goods, £10,128,909. The exports of wool were £4,217,018 in value; of gold coin and bullion, £4,132,061; silver, £420,001; wheat, £4,189,935; the wheat export being £392,480; of live stock, £705,619; of frozen meat, £411,451; of hides, skins, and furs, £300,673; of leather and harness, £344,729; of clothing, £173,799; of tallow, £174,985; of sugar, £118,964; of tea, £148,729; of all other goods, £3,705,505. The quantity of wool exported, one-fifth coming from other parts of Australia, was 102,205,956 pounds.

In Queensland the Government still owns 411,928,560 acres, or 97 per cent. of the area of the state, having alienated 13,323,524 acres outright and 2,585,996 acres conditionally on the payment of instalments. Government lands can be purchased for the conditions of residence or improvement on the payment of 13s. 6d. an acre in 20 annual instalments, or, with such conditions, in homesteads of 160 acres for 2s. 6d. an acre, payable in 10 instalments. It is also possible to lease agricultural land for twenty years up to 1,589,375 acres. The annual rent of 2s. 6d. per acre, payable in 21 instalments, the annual rent being 3d. an acre per annum. Half the surface of the state is forest. Scrub lands can be leased for thirty years at 3d. an acre on condition that the scrubber clears and fence his run. Squeetters already occupy 225,000,000 acres of the public domain. The live stock in 1900 consisted of 3,938,788 horses, 4,078,191 cattle, 10,339,185 sheep, and 12,187 pigs. There were 2,456,047 bushels of corn harvested from 122,974 acres, and 1,790,000 bushels of wheat from 79,304 acres. The area under sugar-cane was 108,535 acres, yielding 92,554 tons of raw sugar. The output of coal in 1900 was 497,132 tons, valued at £173,705. The production of gold was 963,189 ounces, valued at £2,871,709; of tin, 1,123 tons, value £74,041; of copper, 384 tons, value £23,040; of silver, 112,990 ounces, value £12,712. Lead, bismuth, wolfram, manganese, molybdenite, and antimony are mined also, and opals and other precious stones. The importation of textiles and clothing in 1900, £4,353,572; of metals and metal manufactures, £2,357,933. Of the total exports £3,100,700 came from Great Britain, £5,101,066 from Australasian colonies, £2,357,124 from the United States, £1,052,392 from British possessions outside of Australia, and £439,934 from other countries. Of the exports £5,498,128 went to Great Britain, £3,271,056 to Great Britain, £432,596 to British possessions, £2,506 to the United States, and £966,604 to other countries.

The area of South Australia is 578,361,600 acres, and only 344,740 acres had become private property up to Jan. 1, 1901. Freeholds and leaseholds together amounted to 93,383,621 acres. There were 3,279,406 acres under crops in 1901, of which 1,913,247 acres produced 11,253,146 bushels of wheat. Orchards occupied 16,001 acres; vineyards, 20,158 acres. The quantity of wine made was 1,388,847 gallons, of which 476,546 gallons were exported. The live stock consisted in 1900 of 166,790 horses, 214,761 cattle, and 5,235,220 sheep, exclusive of the northern territory, where there were 12,802 horses, 257,067 cattle, and 48,057 sheep. The value of copper exported in 1900 was £371,950; of copper ore, £32,526. The total mineral product was valued at £431,289. The exports of wool were valued at £2,003,391; of gold, £737,238; of tea, £301,302; of rubber, £1,225,904; of raw jute, £188,000; of tea, £1,128,909. The exports of wool were £4,217,018 in value; of gold coin and bullion, £4,132,061; of silver, £420,001; wheat, £4,189,935; the wheat export being £392,480; of live stock, £705,619; of frozen meat, £411,451; of hides, skins, and furs, £300,673; of leather and harness, £344,729; of clothing, £173,799; of tallow, £174,985; of sugar, £118,964; of tea, £148,729; of all other goods, £3,705,505. The quantity of wool exported, one-fifth coming from other parts of Australia, was 102,205,956 pounds.

Agriculture has made rapid progress in Western Australia, yet only 201,946 acres out of a total area of 624,600,000 acres were in cultivation in 1900. In 1901 there were 74,130 acres under wheat, 8,480 under barley and oats, and 104,104 acres in grass. The area alienated in 1900 was 48,957 acres, making altogether 6,619,284 acres in the hands of private owners. Grapes for wine and table were planted on 3,245 acres. The live stock in 1901 consisted of 4,800 horses, 3,333,617 sheep, 2,431,861 cattle, and 2,431,861 sheep. There were 2,561 leases of gold-mines in 1900. The number of miners employed was 10,060. The gold output was 1,380,550 ounces of gold. The annual output of copper was 249 tons and of concentrated copper ore, 846 tons, together valued at £33,937. From 103 tin-mines were obtained 670 tons of ore and eight tons of ore, valued at £37,050. There were 71 coal-mines operated.
value of gold exports, which reached £2,461,368 in 1899, was £3,799,124 in 1900. Other exports in 1900 were pearl shells of the value of £360,513; pearl oyster £326,320; timber, £438,461; wool, £270,718; skins, £54,109. Of the total imports £2,743,505 in value came from other Australasian colonies, £2,257,746 from Great Britain, £279,699 from other British possessions, £232,035 from the United States, and £487,302 from other countries; of the total exports £2,208,419 went to Great Britain, £1,125,338 to Australasian colonies, £214,766 to other British possessions, £175 to the United States, and £243,366 to other countries.

Of 18,778,000 acres, the area of Tasmania, 4,834,944 acres had up to Dec. 31, 1900, been sold or granted to agricultural settlers, leaving 11,943,056 acres still the property of the Crown, consisting mostly of forest and mineral lands. There were 19,422 persons engaged in agriculture and 1,881 in pastoral pursuits in 1901. The area leased as sheep-runs was 1,206,794 acres. The area under crops in 1901 was 224,352 acres; under grass, 306,180 acres. The yield of wheat, from 51,825 acres, was 110,421 bushels; of oats, from 45,073 acres, 1,405,813 bushels; of potatoes, from 23,065 acres, 83,662 tons; of hay, from 61,541 acres, 163,618 manifold, the live stock being 1,638,956 sheep, and 68,291 pigs. There were 420 licenses on Jan. 1, 1901, for gold, 441 for tin, 29 for coal, 229 for silver, and 102 for copper mines.

The value of gold exported in 1900 was £207,162; of silver and silver ore, £252,080; of copper ore, £201,960; of tin, £270,988; of wool, £241,214; of timber and bark, £71,618; of hops, £19,870. The output of silver and copper ore was 446,436 tons, valued at £1,583,404. The duty levied on imports is on the average 22.44 per cent. The imports of textiles were £240,632 in value in 1900; of hardware, £131,129; of sugar, £114,499; of machinery, £112,044. Of the total value of imports £290,722 came from Victoria, £20,973 from South Australia, £51,944 from New South Wales, £204,904 from other British possessions, £226,603 from Great Britain, and £29,696 from foreign countries: of the exports £888,000 went to Great Britain, £513,161 to New South Wales, £208,813 to Victoria, £109,088 to other British possessions, and £810,855 to foreign countries.

Irrigation.—The stock growers of Australia have been relegated in the older colonies to the semiarid regions, and part of these have been reclaimed for agriculture by irrigation. The colonial governments and private individuals have given attention to securing a water-supply by artificial means for animals, great numbers of which have perished in years of unusual drought. The water-supply has already been increased by artesian bores to such an extent that millions of sheep and cattle are thriving on lands where grazing was formerly impossible. In all Australia on Jan. 1, 1900, there were 1,639,127 horses, 267,432 cattle, and 79,024,733 sheep. By Jan. 1, 1901, the Government of New South Wales had completed the sinking of 82 wells, of which 56 flowed spontaneously; 18 required pumps, and 8 water failures. The daily supply from these wells is 32,700,000 gallons. It was necessary to drill 4,467 feet in the rainless district west of the mountains in northern New South Wales, and 745,000 gallons a day. The Kenmare well, on the arid northern plains, supplies 2,050,000 gallons from a depth of only 1,682 feet. The well at Pera, 1,202 feet deep, gives 300,000 gallons a day, and here and wood, £39,008; wheat, and sugar-cane have been grown experimentally by irrigation, as well as vegetables and pineapples and other fruits, proving that the soil of the waterless plains of Australia possesses every element of fertility except moisture and offers great prospects for agriculture through irrigation wells. On the desert route from Wamaring to Milparinka 7 artesian wells now supply 2,300,000 gallons a day. Further north borings have given satisfactory results. Besides the Government borings private individuals have sunk a great number of wells, yielding in the aggregate a supply of 45,000,000 gallons a day. In Victoria borings have not been generally so successful. Many proved dry, and in many wells that were struck the water was salty and worthless. Nevertheless, success has on the whole repaid the efforts in that state. A remarkable settlement at Mildura, on the river Murray, is peopled by 4,000 emigrants from the British Islands, who in thirteen years have invested over £1,000,000 in the cultivation of vineyards, orange groves, and fruit farms and hops, from 624 acres, 966,679 pounds. One of the most important products is fruit, which was exported, fresh and preserved, to the amount of £279,988. The live stock on Dec. 31, 1901 was 31,921 cattle, 163,618 manifold, the live stock being 1,638,956 sheep, and 68,291 pigs. There were 420 licenses on Jan. 1, 1901, for gold, 441 for tin, 29 for coal, 229 for silver, and 102 for copper mines.

The value of gold exported in 1900 was £207,162; of silver and silver ore, £252,080; of copper ore, £201,960; of tin, £270,988; of wool, £241,214; of timber and bark, £71,618; of hops, £19,870. The output of silver and copper ore was 446,436 tons, valued at £1,583,404. The duty levied on imports is on the average 22.44 per cent. The imports of textiles were £240,632 in value in 1900; of hardware, £131,129; of sugar, £114,499; of machinery, £112,044. Of the total value of imports £290,722 came from Victoria, £20,973 from South Australia, £51,944 from New South Wales, £204,904 from other British possessions, £226,603 from Great Britain, and £29,696 from foreign countries: of the exports £888,000 went to Great Britain, £513,161 to New South Wales, £208,813 to Victoria, £109,088 to other British possessions, and £810,855 to foreign countries.

Irrigation.—The stock growers of Australia have been relegated in the older colonies to the semiarid regions, and part of these have been reclaimed for agriculture by irrigation. The colonial governments and private individuals have given attention to securing a water-supply by artificial means for animals, great numbers of which have perished in years of unusual drought. The water-supply has already been increased by artesian bores to such an extent that millions of sheep and cattle are thriving on lands where grazing was formerly impossible. In all Australia on Jan. 1, 1900, there were 1,639,127 horses, 267,432 cattle, and 79,024,733 sheep. By Jan. 1, 1901, the Government of New South Wales had completed the sinking of 82 wells, of which 56 flowed spontaneously; 18 required pumps, and 8 water failures. The daily supply from these wells is 32,700,000 gallons. It was necessary to drill 4,467 feet in the rainless district west of the mountains in northern New South Wales, and 745,000 gallons a day. The Kenmare well, on the arid northern plains, supplies 2,050,000 gallons from a depth of only 1,682 feet. The well at Pera, 1,202 feet deep, gives 300,000 gallons a day, and here and wood, £39,008; wheat, and sugar-cane have been grown experimentally by irrigation, as well as vegetables and pineapples and other fruits, proving that the soil of the waterless plains of Australia possesses every element of fertility except moisture and offers great prospects for agriculture through irrigation wells. On the desert route from Wamaring to Milparinka 7 artesian wells now supply 2,300,000 gallons a day. Further north borings have given satisfactory results. Besides the Government borings private individuals have sunk a great number of wells, yielding in the aggregate a supply of 45,000,000 gallons a day. In Victoria borings have not been generally so successful. Many proved dry, and in many wells that were struck the water was salty and worthless. Nevertheless, success has on the whole repaid the efforts in that state. A remarkable settlement at Mildura, on the river Murray, is peopled by 4,000 emigrants from the British Islands, who in thirteen years have invested over £1,000,000 in the cultivation of vineyards, orange groves, and fruit farms and hops, from 624 acres, 966,679 pounds. One of the most important products is fruit, which was exported, fresh and preserved, to the amount of £279,988. The live stock on Dec. 31, 1901 was 31,921 cattle, 163,618 manifold, the live stock being 1,638,956 sheep, and 68,291 pigs. There were 420 licenses on Jan. 1, 1901, for gold, 441 for tin, 29 for coal, 229 for silver, and 102 for copper mines.
Vast tracts of arid land, with a sparse population, have left little evidence of past civilizations. The area is sparsely populated, with a few small towns and settlements scattered across the vast expanse. The climate is hot and arid, with little rainfall, making agriculture challenging. The primary industries are livestock farming, particularly sheep and cattle, and mining, with significant deposits of gold, coal, and other minerals. The transport infrastructure is primarily composed of railroads, with a network of rail links spanning the country, facilitating trade and communication. The development of the rail network has been crucial in integrating the different regions of the country.
cable, the branching off at Norfolk island, was laid before the end of March, 1902, and a few days later the section from Norfolk island to Fiji was in place. From Fiji it was carried to Fanning island, where it joined to the cable laid from West Coast inlet, British Columbia.

**Defense.**—The military forces of the 6 states forming the Commonwealth had a total strength of 23,638 men, of whom 1,902 were paid, 14,291 partly paid, and 7,670 unpaid. New South Wales had in 1900 a regular force of 726 men, volunteer forces numbering 8,506, of whom 2,300 received some payment, and reserves and rifle clubs numbering 3,004 men. Victoria had a permanent force of 396 men, 3,404 militia, and 3,884 volunteers. In Queensland every able-bodied man is by law liable to military duty, and besides a regular force of 300 men there are about 2,500 militia who receive pay while undergoing drill, 1,280 volunteers to whom uniforms and arms are furnished, and 4,000 citizens organized in rifle clubs and provided with arms and ammunition by the state. South Australia has a defense force of 136 officers and 2,826 men, including reserves, besides which there are 1,017 members of rifle clubs and 353 armed police who may be called out for military service in an emergency. Western Australia has 5 battalions of rifles and 3 batteries of volunteer artillery, and 1 battery of permanent artillery stationed at Albany, the total force numbering 135 officers and 2,961 men. Tasmania has a volunteer defense force of 2,729 officers and men. Major-Gen. E. T. H. Hutton, commander of the military forces of the Commonwealth, reported to Sir John Forrest, Minister of Defense, that the total number of troops available was 29,571, consisting of 15,470 men in the garrison corps and a field force of 14,101 men with 60 guns. It was proposed to increase the latter to 29,748 men on the war footing, giving a total of 44,218, the field force to consist of 6 brigades of light horse and 3 brigades of infantry, with field-artillery and engineers in the latest approved proportion. The geographical position of Australia renders it less liable to attack than most parts of the British Empire, but Australian interests outside of Australia are peculiarly open to foreign interference.

It is impossible for an expedition from an enemy's base in Asia, Africa, or Europe to land in Australia unless the force has first been defeated. Nevertheless, it is important to guard against raids made for the purpose of extorting an indemnity, destroying commerce, or obtaining coal. Therefore the security of the naval bases must be insured, and arrangements are necessary to concentrate the available troops at any threatened point. Hence the early extension of the railroad into Western Australia is desirable. A military college for the training of officers, the development of rifle clubs, and the establishment of arsenals for the manufacture of arms and ammunition are recommended, and the sum of £500,000 is required to provide arms and complete the equipment of the field and garrison troops. The abolition of some of the military and volunteer payments and the absorption of their members into other corps, in conjunction with a heavy curtailment of the naval force, provided a way for a reduction in the military expenditure. The proposed petition to Parliament by the ministry. Proposals for military contributions toward the cost of imperial defense have not been well received in Australia. The Australian community, with the Parliament, expect that the Government will contribute according to their population is regarded as a species of taxation without representation. The financial limitations imposed by the Constitution preclude the Commonwealth from undertaking its full share of the defense of the Empire, but the Australians will equip themselves to defend their own shores.

The chief ports of Australia are fortified, and forts have been built at Thursday island, and King George Sound, at the expense of the imperial and colonial governments. In the beginning of 1902 there were 12 vessels of the British royal navy stationed in Australasia, with headquarters at Sydney. Besides these there are the vessels built for Australasia under the Australasian naval force act of 1887, 2 cruisers of 2,575 tons and 2 torpedo gunboats of 735 tons, for which the Australasian colonies pay £23,000 a year as interest on the cost of construction and £91,000 for maintenance on condition that these vessels be not withdrawn in war time. But they have become obsolete, and other schemes are under discussion. The British Admiralty propose the abolition of the entire Australian fleet and the payment of an increased cash subsidy by Australia toward the cost of the imperial navy. In Australia opinion favors the formation of an Australian fleet that shall form part of the imperial navy and be under the command. The government on the Australian station, a scheme recommended to the Commonwealth Parliament by Capt. Crosswell, naval commandant in Queensland.

The Commonwealth Parliament. - The Federal Parliament, as well as the parliaments of the principal states, was dominated to a great extent by the Labor party, which was represented by some of the ablest politicians and could control legislation, although it has not an actual majority.

The approval of Parliament was obtained for the principle of a fair day's wages for a fair day's work, a day of eight hours and a minimum wage, which was already fixed at 7s. a day in New South Wales, where the state Government undertook to give public employment to all laborers who could not obtain that rate from private employers. That Australia must be a white man's country was one of the prime demands upon the Commonwealth Parliament, because all colored and other colored laborers are allowed to enter Australia in numbers they will soon demoralize the labor market. The Chinese were already effectively excluded. A resolution to this effect was passed by the state governments. Parliament was asked to exclude and expel Kanakas, Hindustanis, Japanese, and all others of alien race. The sugar growers of Queensland declared that their industry would perish if they were not allowed to employ Kanakas, who performed labor that white men could not be called upon to do, and who were kindly treated and able to save considerable sums out of their wages. The exclusion law against the Kanakas ordered the deportation of those already in Australia, disregarding the guarantees given to them and making no provision for getting them a living on their return to the islands from which they came. A law excluding Japanese was passed, although the conductors of the pearl-shell fisheries in Torres Strait threatened to remove their fleets to Dutch New Guinea and continue pearl mining with Japanese divers outside of the 3-mile limit. The Premier of Queensland suspended the use of the primary Act, so far as it affects the pearl-shell fisheries, pending an inquiry. The earliest law against colored labor was one insisting that in carrying out contracts, the Asian labor should be employed. This roused a protest from steam-
ship owners and a remonstrance from the Indian Government when applied to land sailors on mail-steamer. The emigration restriction act, which became law in the beginning of 1901, is so worded that it can be used to exclude any immigrants, white as well as colored, British-born as well as alien. No person shall be allowed to land in Australia who, when asked to do so, refused to state whether he or any customs officer—fails to write out at dictation and sign a passage of 50 words in a European language dictated by the officer. The only exceptions are Australians returning from abroad, ambassadors, soldiers, and seamen in the British service, and crews of trading vessels during their stay in port. Any person found at large contrary to the provisions of the act may be fined £50 or imprisoned for six months. The act was enforced only against Hindus, Japanese, and other colored immigrants.

The principal subject of discussion in Parliament during the early months of 1902 was the tariff, which was intended by the Government to provide revenue in the first instance, but to have a decided protectionist incidence. The free-traders in the House of Representatives were strong enough to abate the protectionist features, and the result was in most cases a compromise between the proposals of the Government and those of the Opposition. Thus the duty on Oregon timber used in mines was lowered from 1s. to 6d. per 1,000 feet, and that on boots and shoes was reduced one-half to 30 per cent. ad valorem. New Zealand timber was placed on the free list. An import duty of 14s. a gallon was placed on spirits, a reduction of 1ls. on domestic brandy and 12s. 6d. on domestic whisky and rum. Wines above 40 per cent. of alcoholic strength paid the same duty as imported spirits. Instead of 30 per cent. an import tax of 12s. per cent. was imposed on machinery. Imported cottons and linens were taxed only 5 per cent. of their value. Kerosene was made free, and the tea duties collected hitherto by the colonial governments were abolished, entailing heavy losses of revenue to some of the states. The protected manufacturers of Canada complained of the effect of the tariff, and were discarding the yards of manufacture, but the Government made no attempt to discriminate in favor of part of the empire, lest it should come into conflict with the desire of the Commonwealth to promote the dignity of its own manufactures. A clause was adopted for suspending duties in cases where they led to the formation of trusts or combinations. After much discussion as to the policy and constitutionality of the measure it was decided that imports by the governments of the states should be dutiable. The Senate made amendments in over 100 duties, reducing the rates in all cases. The House of Representatives accepted half the amendments, the less important ones, and sent the bill back to the Senate, which abandoned some of its proposals, but repeated its request as to the others. This raised a constitutional question. The Federal Constitution empowers the Senate to ask the House of Representatives to make amendments in bills dealing with taxation. The Governor-General, as such, had not been considered was regarded by some as an assumption of coordinate powers with the House over money bills. The House of Representatives therefore, and the Senate, as such, had not been considered, made the reservation that it should be without prejudice as to its constitutional powers. In regard to the remaining items some reconstructions were made, and the tariff bill was finally passed by the Senate on Sept. 9. An electoral bill was passed providing for woman suffrage. Proportional representation was rejected by the Senate. All colored aliens were disqualified. The bill to establish a Federal High Court, consisting of the Chief Justice and four other judges, was not passed. The Senators examined various sites for the future Federal capital, but deferred the final site to the in- tense cost of land and buildings involved. It was decided that in the mean time Parliament should sit alternately in Sydney and Melbourne. Lord Hopetoun requested an additional allowance to provide for the extra cost of keeping up residences in both capitals. Parliament voted £10,000 to recoup him for his expenses in entertaining the Duke of York, but rejected the Government bill to grant a supplementary allowance of £5,000 a year in addition to the annual salary of £10,000 pending the selection of a permanent capital. The postponement of this selection was considered a breach of the Constitution by the ministers, who intended to make the question the first business of the next session. Inasmuch as the salary of the Governor-General is fixed in the Constitution and can not be increased during the continuance in office of a Governor-General, such an amendment would be unconstitutional. Besides, it is the present policy of the Australian governments to reduce expenses. The salaries of the state governors have been cut down, and the members of the state parliaments are to be reduced in number, especially in the legislative councils. Lord Hopetoun, who as Governor-General and when he was Governor of Victoria has spent more than his salary, sent in his resignation to the Colonial Secretary when Parliament declined to increase his pay, and it was accepted. Before he entered upon the Governor-Generalship the agent-general for New South Wales led him to expect that an extra allowance would be voted to enable him to reside in Sydney when Parliament was not sitting. Statemen of some of the other colonies were in favor of such a dual residence, and the New South Wales Parliament passed a resolution that he should have an allowance of £10,000 in addition to his salary for the purchase of a house. Hence Lord Hopetoun considered the action of the Commonwealth Parliament a breach of promises that had been held out and derogatory to the dignity of his office, and the sovereignty. Before selecting his successor Mr. Chamberlain asked to have a provision made for the maintenance of Government houses in both Sydney and Melbourne, and Parliament agreed to allow the next Governor-General £5,000 per annum. Meanwhile Lord Tennyson was appointed acting Governor-General, and sworn in on July 17. After returning to England Lord Hope- touin was advanced in the peerage by having conferred upon him the title of Marquis of Linlithgow.

Subjects of legislation to be considered at the next session are a decimal coinage system based on the sovereign, a bill dealing with industrial disputes, and a banking law which would render unlikely a financial crisis. Old-age pensions can not be dealt with by the Commonwealth Parliament at present. State property connected with the transferred services will be valued and an agreement made for the transfer of the property and interest at the rate of 3½ per cent. For public works the Federal as well as the state legislators made appropria-
tions exceeding the Government estimates, though none of the bills was registered in the New South Wales. The Governor was held at Sydney in the middle of May. Mr. Barton went to England to take part in the conference of colonial ministers that was to be held in connection with the coronation. During his absence the Attorney-General acted as Premier of the Commonwealth. The Commonwealth Government prepared to take over the administration of British New Guinea. It is proposed that the northern territory of South Australia be transferred to the Federal Government, which will complete the railroad from Adelaide to Port Darwin, selling land to pay the cost.

New South Wales. The Legislative Council had 62 members in 1901, who are appointed for life. There are 125 members in the Legislative Assembly, who are elected in as many districts by the votes of all male British subjects of full age who have resided one year in the state and three months in the district. The Governor at the beginning of 1902 was Vice-Admiral Sir Harry Holdsworth Rawson, appointed Jan. 20, 1902. The Cabinet of the beginning of 1902 was composed as follows: Premier, Colonial Secretary, and Minister of Railways, John See; Colonial Treasurer, Thomas Way; Attorney-General, Minister of Justice, Bernard Ringrose Wise; Secretary for Lands, William Patrick Crick; Secretary for Public Works, Edward William Sullivan; Minister of Public Industry and Labor, John Perry; Secretary for Mines and Agriculture, John Kidd; Vice-President of the Executive Council, Francis Bathurst Sutton; without portfolio, James Hayes and Walter Bennett.

The net revenue of the Government for the year ending June 30, 1900, was £2,970,677, of which taxation produced £2,618,966, land revenue £2,110,076, Government services £4,992,521, and miscellaneous sources £244,014. Of the revenue from taxation the import and excise duties made £1,736,574, and the stamp-duities, land and income taxes, and licenses, £881,692. The net expenditures were £2,888,977, of which £2,102,784 were for railways and tramways, £725,521 bill for which was incurred to build railroads, tramways, telegraphs, sewerage, waterworks, and irrigation works, amounted on June 30, 1900, to £65,332,983, paying the average interest of 3.63 per cent., 2.35 per cent. being returned in the profits of the public works, which yielded 3.45 per cent. of their capital cost. Further loans amounting to £19,630,135 were authorized.

The State Assembly met on May 28. Social legislation had the first place in the ministerial program. A women's franchise bill was passed, and a bill for municipal reform. The question of reducing the Assembly to 94 members is to be submitted to a referendum. Parliament has instituted a compulsory arbitration court. The first sittings of the court were to be devoted to the establishment of a minimum rate of wages, the limitation of the hours of labor, and the regulation of child labor. The whole industrial union or the company employing on an average 50 employees per month is entitled to register as an industrial union of employers. Each industrial union on registration becomes a body corporate and has a common seal and perpetual succession. As soon as the act went into effect the trade-unions already in existence applied for registration with enthusiasm. The employers reluctantly and with hesitation also formed industrial unions—the pastoralists, the mine owners, merchants, manufacturers, and masters of the various trades. The provisions of the act placing the control of every business in the hands of a court made it a matter of necessity for employers to take steps to be represented in the court, which consists of a judge of the Supreme Court nominated by the Governor as the Governor as the Governor and by the Governor from lists submitted respectively by a body of delegates from the trade-unions and a body of delegates from the industrial unions of employers. On June 28 the Act was passed, but the act is yet, if either employers or employees fail to nominate delegates the Governor may appoint on the tribunal such persons as he may see fit. When technical questions arise before the court the court may appoint 2 assessors representing employers and employed respectively. The court has power to hear and determine any industrial dispute or industrial matter or any application under the act brought before it by an industrial union. A person not a member of a union can come into court for the remedy of a grievance sustained through a decision of the tribunals, but an industrial dispute where one of the parties is not a member of an industrial union can only be referred to the court in the discretion of the registrar. Any person entitled to refer a dispute or to apply for an order of the court goes to the registrar, who summons all parties to attend. The court has full power to compel the attendance of witnesses, the production of books and papers, etc. The suspension of work by a strike or a lockout without reference of the dispute to the court entails a fine of £1,000 or two months' imprisonment or a dismissal of an employee for belonging to a union or because he is entitled to the benefit of an award subjects an employer to a penalty of £20. The court has power to prescribe a minimum rate of wages in any particular trade; to direct that unionists shall be employed in preference to non-unionists; to appoint a tribunal to determine whether an employer may employ non-unionists; to declare any regulation, custom, term of agreement, condition of employment, or dealing whatsoever in relation to an industrial matter to be a common rule of the industry affected and to direct in what way and to what extent such common rule shall be binding upon all persons engaged in that industry, whether they are before the court or not. Any union disobeying an order of the court is liable to a penalty of £500 and any individual to one of £5, and the court may specify the persons to whom such penalty shall be levied. The property of a union is insufficient to satisfy the award the individual members are liable up to £10. The power of the court includes all or any matters.
relating to the wages, allowances, or remunera-
tion of any persons employed or to be employed
in any industry; to the hours of employment,
with the wages of employees and the mode, terms, and conditions of employ-
ment; to the employment of children or young
persons or of any person or persons or any class
of persons in any industry; and the dismissal of or
refusal to employ any particular person or per-
sons or class of persons; to any established cus-
tom or usage of any industry, either general or in
any particular locality; to the interpretation of
any industrial agreement. The court may regu-
late its own procedure in every respect. It
may admit and call for such evidence as it
thinks to be the best available, whether strictly
legal evidence or not. Costs may be assessed on
either party, though each party must pay the
attorneys and agents whom it employs. The
court may dismiss a proceeding where it thinks
that the matter should and can be amicably set-
tled. It may bring before it as parties any per-
sons it thinks proper. It may sit in any locality
and may call in the aid of expert assessors and
compel the presence and testimony of any wit-
nesses it sees fit to call. The president of the
court has extensive powers of settling all prelimi-
ary matters in the case. A final decision of a dispute may be disposed
of by any schedule.

Victoria.—The 48 members of the Victorian Legislative Council are elected for six years by f	b
frontiers or king's officers of property rated at £25
year, and members of the learned professions. The Legislative Assembly has 95 members elected
for three years by universal male suffrage. The number of voters for the Council in 1901
was 130,672; for the Legislative Assembly, 276,
314. The Governor is Sir George SYDENHAM
Clarke. The ministry constituted in September,
1901, was composed as follows: Premier, Treasur-
er, and Minister of Labor, A. J. Peacock;
Chief Secretary and Minister of Railways, W. A.
Trenth; Attorney-General, Sir Samuel GILLOTT;
Minister of Agriculture, J. Morrissey; Minister
of Public Instruction, W. Gurr; Minister of
Land, D. J. DUGGAN; Minister of Public Works
and Health, W. M. McCulloch; Solicitor-General,
J. H. R. Park; Attorney-General, G. W. KNIGHT; Min-
ter of Railways, J. B. Burton; without portfolios, R. McGregor
and E. J. Crooke.

The public revenue in the year ending June 30, 1901, amounted to £7,400,856, of which £2,854,592
came from taxation, £3,008,521 from rail-
roads, £886,061 from posts and telegraphs,
£885,283 from Crown lands, and £493,426 from
other sources. Of the tax revenue £1,973,216
were derived from customs, £329,377 from ex-
ter, £108,222 from the land tax, £126,478 from
duties on estates of deceased persons, £18,060 from
a duty on bank-notes, £170,600 from the
stamp-duty, £43,968 from tonnage dues, and
£215,071 from the income tax. The Govern-
ment expenditure was £7,253,136, of which £2,835,998
was for the public debt, £2,801,384 for railways,
£539,869 for other public works, £521,918 for
posts and telegraphs, £655,579 for public in-
struction, £320,118 for pensions, £99,610 for
charitable institutions, £312,759 for police and
prisons, £201,611 for defense, £95,032 for cus-
toms and harbors, £98,879 for Crown lands,
£194,560 for mining and agriculture, £171,838
for the courts, £268,821 for government
expenses, and £301,842 for other purposes.

The funded debt on June 30, 1900, amounted to
£4,268,808, of which £36,740,813 were bor-
rowed for railways, £885 for water-
works, £778,775 for state school-buildings, and
£2,518,376 for various public works. The aver-
age interest on the debt is 3.83 per cent. The
local debts in Victoria amount to £10,639,396.
The local revenues in 1901 were £2,473,056, and
expenditures to £1,602,737.

The ministers offered their resignations col-
lectively in November, 1901. No immediate ac-
tion was undertaken until, in the letter that
last presented they proposed to withdraw their
resignations on the ground that circumstances
had altered. They were therefore retained in
office. A popular agitation impelled the ministry
to go further than was intended in framing a
measure for reducing expenditure on Parliament.
The Labor party alone in Victoria, as in New
South Wales, opposed the reduction of the num-
ber of representatives or the curtailment of their
salaries, on the ground that it would weaken the
representation of the working classes. The Gov-
ernment brought in a bill reducing the number
of members in the Assembly and the Council, and
limiting the ministers to 6. The qualification
of voters for the Legislative Council was altered
to simple registration as a ratepayer. Adult
suffrage for both sexes was proposed, and provi-
sion was made for a dissolution of both houses
after a joint session has failed to settle a dead-
lock. To meet a deficit of £252,000 in the year's
account a loan of £250,000 at 3 per
cent. was raised locally at the issue price of 94.
After the assemblage of the state Parliament on
May 27 the ministers resigned in their resigna-
tions. Mr. IRVINE, who led the victorious Oppo-
sition, formed a new Cabinet on June 8 as fol-
ows: Premier and Attorney-General, Mr. IRVINE;
Treasurer, Mr. Shiels; Solicitor-General, Mr. DA-
VIES; Minister of Railroads, Mr. BENT; Minister
of Education and Health, Mr. REID; Minister
of Public Works and Agriculture, Mr. TAVENER;
President of the Board of Lands, Mr. MCKENZIE;
Minister of Mines, Mr. CAMERON; Chief Secret-
ary and Minister of Labor, Mr. MURRAY; without
portfolios, MESSRS. McLEOD, KIRTON, PIT,
and SACHSE. The new Cabinet proposed to re-
duce the number of members in the Assembly
from 95 to 50 and in the Council from 48 to 28
and the number of ministers to 7. Provision was
made for the settlement of the railway debt so that in the Federal Constitution. These pro-
posals were satisfactory to Parliament, but
when, in view of a probable deficit of £260,000,
the ministers proposed a reduction of the duties on the public service they encountered a fierce oppo-
sition. The railroad men threatened to strike if Parliament approved the retrenchment scheme.
On Sept. 9 the Cabinet was defeated in the As-
sembly by 44 votes to 33 on the proposal to re-
duce salaries. The ministers appealed to the
country. The dissolution caused the factories
act and the decisions of wages boards fixing the
wages in many trades to lapse, thereby increasing the trade-unionists. The Government wished to
prolong the operation of the temporary act for another year, but the Legislative Council insisted
on discussing the whole subject. A commission
was appointed to consider legislation of a per-
manent character. Meanwhile were empowered to fix minimum wages in the various trades. Employers who paid less were liable to a penalty. Nevertheless, they often evaded the act by various subterfuges.

Queensland.—The Legislative Council has 42
members, nominated for life. The Legislative
Assembly consists of 72 members elected by the
ballots of all males of full age who have lived six months in Queensland. Property
owners and lessees of pastoral lands can vote
in every district in which they have lands. There were 97,739 electors on the registers in 1901. The Governor is Major-General Sir Herbert Charles Chermoise, appointed in 1902. The Cabinet at the beginning of 1903 consisted of the following: Hon. A. B. McMillan, Secretary for Mines, Chief Secretary, and Vice-President of the Executive Council, Robert Philip; Attorney-General, A. Rutledge; Secretary for Agriculture, D. H. Smulian; Secretary for Education, J. F. C. Forson; Secretary for Public Instruction, John Murray; Secretary for Public Lands, W. B. O’Conell; Secretary for Railways and Secretary for Public Works, John Leathy; Treasurer, Robert Cribb; without portfolio, George Wilkie Gray.

The revenue of the Government during the year ending June 30, 1901, was £4,357,345; expenditures, £4,414,428. Of the revenue £1,365,844 were derived from customs duties on imports, £201,106 from stamp duties, £141,108 from excise and export duties, £96,614 from a duty on dividends, £51,625 from licenses, £2,921-927 from rent of pastoral lands, £263,303 from other rents and sales of land, £1,246,794 from railways, £310,353 from posts and telegraphs, and £415,100 were for interest on the public debt, £310,511 for public instruction, £1,050,132 for operating railways, £376,191 for post and telegraphs, £118,312 for public land administration, £33,141 for the Department of Agriculture, £194,894 for the Colonial Treasurer’s Department, £88,792 for endowments to municipalities and divisions. The expenditure during the year was £1,212,020, for railways, rivers and harbors, telegraphs, water-supply, defense, etc. The revenue for 1902 was estimated at £5,908,600, exclusive of £325,724 received by the Commonwealth, and expenditure at £3,887,890. The public debt on Jan. 1, 1901, amounted to £36,906,414.

The Queensland Government announced the intention of reducing the number of ministers and of members of the Legislature. An act enabling the Government to repurchase estates suitable for dairying for the purpose of cutting them up into small holdings for close settlement supplements a previous measure dealing with agricultural lands. Another act enables the state to grant special homesteads areas adjoining the leases previously made in Queensland, as in other states, for advanced to farmers, the loans to be expended only on improvements under official supervision. When the Kanaka exclusion bill was passed by the Commonwealth Parliament Premier Philip, in the interest of the sugar-planters, made an appeal that it should be reserved for the approval of the Imperial Government, but the Governor-General, on the advice of the Commonwealth ministry, signed it nevertheless. The planters of Queensland in their effort to defeat the purpose of the Labor party to exclude alien races so angered their opponents that they nearly lost the protective duty on sugar that was given in compensation for the cessation of Kanaka labor. The Commonwealth Parliament is pleased that no white laborers can be employed in the tropical lands if colored laborers are employed on the same plantations. The general election in Queensland took place in March, the Government party elected 38 members and the Opposition 30, of whom 24 are representatives of the Labor party. The sugar-planters are determined not to employ white labor so long as they can retain their blacks.

In five years the federal law requires Queensland to deport all Polynesians to the places from which they originally came. The state Government decided that when conditions on shore render it unsafe for islanders to land at their old bounties they shall again go back to Queensland, although from the beginning of 1902 the Federal Government ceased to issue licenses authorizing the employment of additional Kanakas.

Farmers who are now white or who grow sugar are entitled to a bonus of £2 a ton from the Federal Government. The planters have received the protective duty of £2 5s. a ton, the promise of which made them eager to enter the federation, yet they are willing to see the union dissolved if they cannot obtain the repeal of the exclusion act, which the Labor party of southern Queensland was most influential in carrying through with the support of labor politicians of other colonies, but against the wishes of the Queensland Government. The state Government is involved in the financial success of the sugar industry, having advanced £500,000 under the sugar-works guarantee act of 1893 to farmers for the erection of mills, most of whom are in arrears and have kept going by further advances. Other undertakings for which the great debt of Queensland was incurred have proved unremunerative, so much so that £1,500,000 of the £1,500,000 interest due on such debts had to be made good in 1901 out of the general revenue. With the protective duty and the bounty the prospect of raising sugar-cane with white labor is promising, but high prices at which uncultivated land suitable for sugar is held by the owners deters small farmers from entering the field. The smaller industry of pearl-shell fishing can probably be carried on by white fishermen, as it was once. Neither the officials nor the people consider it a benefit to Queensland now, because the capitalists engaged in it are absentees and the Japanese divers take their wages back with them to their own country.

South Australia.—The Legislative Council consists of 24 members, one-third of whom are replaced every three years by the votes of freeholders, lesseholders, and householders occupying premises rated at £25 a year. The House of Assembly contains 54 members, which number will be reduced to 39 by universal suffrage. The franchise was extended to women in 1894. The number of registered voters in 1900 was 153,268. The Governor is Lord Tennyson, appointed in 1899. The ministerial council at the opening of 1902 was composed as follows: Premier and Chief Secretary, J. G. Jenkins; Attorney-General, J. H. Gordon; Treasurer, R. Butler; Commissioner of Crown Lands, L. O’Loughlin; Commissioner of Public Works, R. W. Foster; Minister of Education and Industry, T. H. Brooker.

The state revenue for the year ending June 30, 1901, was £2,824,212, and the expenditure £2,346,677. For 1902 the revenue was estimated at £2,586,758, of which customs produce £612,000; estimated expenditure, £2,602,701. Besides customs, railroad receipts, internal revenue, posts and telegraphs, and lands furnish the main part of the public receipts, and the chief items of expenditure are interest on the debt and the operating expenses of railroads and other services, only 10 per cent. being devoted to administration, courts, police, and defense. The public debt on June 30, 1901, amounted to £28,131,880, more than half of which was borrowed to build railroads, telegraphs, and water-works. The railroads yield a net profit of 3½ per cent.
Under the new Constitution of South Australia the members of the Legislature were reduced nearly one-half, which, on May 15, 1856, on the recommendation of Mr. Colenso, showed no change in the relative strength of parties except a slight loss in the Labor party. The Cabinet, reduced to 4 members by the change in the Constitution, was reconstituted at the end of March as follows: Premier and Chief Secretary, J. G. Jenkins; Attorney-General and Minister of Education, J. H. Gordon; Treasurer and Minister of Lands and Agriculture, R. Butler; Commissioner of Public Works, R. W. Foster. The revenue of South Australia was affected more severely than that of the other colonies by the causes that operated unfavorably in all, the drought and the fall in the prices of metals. The wheat yield was small and railroad receipts declined. The budget showed a deficit of £30,000, which had to be met by the issue of treasury bills. In order to balance the budget for the coming year the Government proposed additional taxation of incomes and new stamp-duities in conjunction with economies in railroad administration and the public service.

Western Australia.—The Legislative Council has 30 members, elected for six years by freemen and holders possessing property of the value of £100, householders occupying premises worth £25 a year, ratepayers assessed for £25 a year, or holders of leased land who pay rent to the Government £10 a year. The Legislative Assembly contains 50 members, elected by persons of either sex who are twenty-one years of age and residents in the place of residence of the members in the district. The Governor is Sir Arthur Lavely. The ministry in office at the beginning of 1902 was composed as follows: Premier and Attorney-General, G. Leake; Colonial Treasurer and Colonial Secretary, F. Illingworth; Minister for Works, Cornthwaite H. Rason; Minister for Lands, Adam Jameson; Commissioner of Railways, W. Kingsmill; Minister of Mines, H. Gregory.

The revenue for 1900 was £3,010,005, and the expenditure £2,858,654. Of the revenue customs products increased, as did the general duties, which include mainly from railroads, the post-office, mining licenses, and leases of public lands. The debt on June 30, 1901, amounted to £12,708,430, requiring the payment of £1,250,000, or about £5,977 0s. 6d. from the sinking-fund. The general election took place in January after the assumption of the premiership by Mr. Leake, whose electoral promises included the reduction of the number of members in both houses of the Legislative, electoral reform, a board of management for the goldfields, a water scheme, the establishment of a harbor trust, a factories act, and new railroad construction. After the death of Mr. Leake a new ministry was formed on June 30 as follows: Premier and Attorney-General, Mr. James; Commissioner of Railways, Mr. Kingsmill; Minister of Mines, Mr. Gregory; Commissioner of Crown Lands, Mr. Jameson; Director of Public Works, Mr. Rason; Colonial Secretary and Treasurer, Mr. Gardener. Western Australia was exempt from the drought which affected the other states. The gold product for 1902 increased notably. The state revenue in 1902 was £3,088,045. Immigration increases, and, although, as usual, immigration advances steadily. The water-works to supply Coolgardie were completed before the end of 1901.

Tasmania.—The Legislative Council numbers 19 members, elected for six years by possessors of freehold or leasehold property worth £10 or £30 a year respectively and by professional practitioners and holders of academic diplomas. The House of Assembly consists of one member elected for three years by British subjects resident in the state for twelve months. There were 9,430 electors for the Council in 1901 and 11,286 electors for the House of Assembly. The Governor is Sir A. E. Havelock. The Cabinet consisted in the beginning of 1902 of the following members: Premier and Attorney-General, Sir N. E. Lewis; Chief Secretary, G. T. Collins; Treasurer, B. S. Bird; Minister of Lands and Works, E. Mulcahy.

The revenue for 1900 was £1,054,980, and expenditure £993,731. Of the revenue £494,218 came from customs. The revenue for 1901, including the sum retained by the Federal Government, was estimated at £865,071, and expenditure at £835,000. The public debt on Jan. 1, 1901, amounted to £8,511,005, of which £2,527,032 pays 3½ per cent. and the rest 4 per cent., the whole having been raised to construct railroads and other public works.

The transfer of the customs to the Commonwealth reduced the revenue of Tasmania, while it cheapened many commodities for the people. New taxes on incomes and inheritance duties on land tax on estates worth over £10,000, and additional stamp-duities were not sufficient to equalize revenue and expenditure, in spite of drastic economies. The Government proposed not only to reduce the number of members in the Legislature, but to amalgamate the two chambers, 10 members to be elected on the Council franchise and 20 on the Assembly franchise.

British New Guinea.—The governments of Queensland, Victoria, and New South Wales, which jointly guarantee the cost of administering British New Guinea within the limit of £15,000 a year, have had a voice in the affairs of this territory, which was proclaimed a British protectorate in 1887 at the solicitation of the Queensland Government. It embraces the southeastern end of the island of New Guinea, and has an area of 99,540 square miles, containing a native population of about 350,000. The Europeans number 1,000, including gold-digging, cattle, shelling, sandalwood collectors, storekeepers, officials, and missionaries. The Commonwealth Government has proposed to provide £200,000 per annum for the next 10 years to defray the expense of administering the territory, and on this condition the Imperial Government is prepared to resign the control of the administration. The present head of the local administration, who has the title of Lieutenant-Governor, is George Ruthven Le Hunte. Congregationalist, Roman Catholic, Wesleyan, and Anglican missionaries in different sections have done something to instruct and elevate the natives. Coconut groves have been preserved and extended, and trade with Europeans is increasing. Still savagery and cannibalism render the island unsafe for whites. Tobacco and coffee have been planted by Europeans. It is unlawful to acquire land from natives or to supply them with liquor or firearms, but land can be purchased from the Crown for 2s. 6d. an acre. The revenue in 1900 was £13,831, and expenditure £19,315. Alluvial gold is mined with machinery. There are about 200 diggers in the field, as well as miners. Tobacco and hardware are imported from Queensland and New South Wales. Treepang, copra, gold, pearls, sandalwood, and tobacco are exported. The value of imports for the year 1900 was £72,286, and of exports £56,167. Pearls and treepang collecting are the principal
source of profit to white adventurers on the New Guinea coasts, and for these occupations native laborers are recruited. These laborers have in many cases been starved, defrauded, and ill treated, causing them to run away, entailing upon them severe punishment, which has resulted in fights from which the whites have suffered. At some parts of the coast, the natives are still addicted to savage raids and cannibal feasts, to which two white gold-diggers fell victims in February, 1901, and the missionary James Chalmers and his party in the April following. Late in the same year 20 persons were murdered and devoured on the Waria river. The Government staff is too small to afford protection over an immense territory or to mete out punishment. The Church of England mission, with a European staff of 26, has immediate control over 15,000 natives, and 1,000 children attend 14 schools. Under the teaching of missionaries the natives become ashamed of cannibalism, and though there are lapses among converts, the influence of civilization spreads rapidly among the people, who have considerable natural intelligence. While cannibal raids are still as frequent as ever in Dutch New Guinea and on the border, in British territory they grow less every year. The different mission stations have apportioned the territory among themselves. The Anglicans on the northeast coast have the region that was the latest to be opened up, but which on account of the gold 7,787,000 has become the center of interest to the whites.

AUSTRIA-HUNGARY, a dual monarchy in central Europe, composed, under the fundamental law of Dec. 21, 1867, of the Empire of Austria and the Kingdom of Hungary, inseparable constitutional monarchies, hereditary in the male line of the dynasty of Hapsburg-Lorraine and in the female line in the event of the extinction of the male line. The legislative power in affairs common to both monarchies, namely, foreign relations, military and naval affairs, with the exception of the national territorial armies, common finance, commercial and railroad affairs concerning both monarchies, the customs tariff, the coining, and the administration of the occupied Austrian territories, are exercised by committees of the legislative bodies of both monarchies, called the Delegations, which meet alternately in Vienna and Budapest, the Austrian and Hungarian heads of the Delegations being elected by lot from 20 members from each of the upper houses and 40 members from each of the popular chambers, elected by the representatives for each annual session. Each Delegation meets and votes separately, and in case of a disagreement the two Delegations come together and decide the matter by a joint vote. The common ministers are responsible to the Delegations and may be impeached for unconstitutional or illegal acts. The Emperor of Austria and King of Hungary is Franz Josef I, born Aug. 18, 1830, proclaimed Emperor of Austria on Dec. 2, 1848, when his uncle, Ferdinand I, abdicated in consequence of a revolution; crowned King of Hungary on June 8, 1867, when the ancient constitutional rights of the kingdom were restored. The heir presumptive is the Emperor-King's nephew, the Archduke Franz Ferdinand, born April 21, 1865, son of the late Archduke Karl Ludwig and the Princess Amalia, daughter of the King of Naples. The ministers of the whole monarchy at the beginning of 1902 were as follows: Minister of Foreign Affairs and of the Imperial House, Graf Max Anton Althann-Meran; Count Kephir von Kriehammer; Common Minister of Finance, Benjamin de Kallay.

The Common Budget.—The expenditure for common affairs in 1899 was 328,954,000 crowns (1 crown = 4 forint = 20.3 cents). The revenue from customs was 116,888,000 crowns; contribution of Austria, 145,474,000 crowns; contribution of Hungary, 946,990,000 crowns. The preliminary accounts for 1900 make the total expenditure 337,348,000 crowns, of which 124,950,000 crowns were obtained from customs; of the remainder Austria paid 138,335,000 crowns and Hungary 73,065,000 crowns. The approved estimates for 1901 make the total expenditure 337,000,000 crowns, customs yielding 125,039,000 crowns of this sum, leaving Austria to provide 136,979,000 crowns and Hungary 82,319,000 crowns. For 1902 the sanctioned estimates of expenditure amount to 355,181,000 crowns, 3,517,048,000 crowns for ordinary and 4,127,018 crowns for extraordinary purposes, appropriated as follows: 10,651,062 crowns for ordinary and 283,955 crowns for extraordinary expenses of the Ministry of Foreign Affairs, making a total of 10,734,357 crowns; 275,988,019 crowns for ordinary and 20,019,103 crowns for extraordinary expenses of the army, making 295,977,222 crowns; 30,891,000 crowns for extraordinary expenses of the navy, making 46,890,200 crowns; 4,174,307 crowns for expenses of the Ministry of Finance; 217,790 crowns for the Board of Control; 7,902,000 crowns of extraordinary expenditure for the military occupation of Bosnia. The customs revenue for 1902 was estimated at 116,341,390 crowns; revenue from the Government departments, 6,191,677 crowns; matricular contributions of the two halves of the monarchy, 254,640-067 crowns. The Ausgleich negotiated in 1867, fixing for ten years the proportional contributions of the two monarchies to the common expenditure and adjusting the customs and the financial relations in general, was continued provisionally after its expiration, no agreement having been reached as to a new arrangement. A joint commission in November, 1899, arrived at a compromise according to which Hungary should pay 3,344 by committees of the legislative bodies of both monarchies, called the Delegations, which meet alternately in Vienna and Budapest, the Austrian and Hungarian heads of the Delegations being elected by lot from 20 members from each of the upper houses and 40 members from each of the popular chambers, elected by the representatives for each annual session. Each Delegation meets and votes separately, and in case of a disagreement the two Delegations come together and decide the matter by a joint vote. The common ministers are responsible to the Delegations and may be impeached for unconstitutional or illegal acts. The Emperor of Austria and King of Hungary is Franz Josef I, born Aug. 18, 1830, proclaimed Emperor of Austria on Dec. 2, 1848, when his uncle, Ferdinand I, abdicated in consequence of a revolution; crowned King of Hungary on June 8, 1867, when the ancient constitutional rights of the kingdom were restored. The heir presumptive is the Emperor-King's nephew, the Archduke Franz Ferdinand, born April 21, 1865, son of the late Archduke Karl Ludwig and the Princess Amalia, daughter of the King of Naples. The ministers of the whole monarchy at the beginning of 1902 were as follows: Minister of Foreign Affairs and of the Imperial House, Graf Max Anton Althann-Meran; Count Kephir von Kriehammer; Common Minister of Finance, Benjamin de Kallay.

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AUSTRIA-HUNGARY. 53

The Army.—The common army consists of 15 army corps, composed, with some exceptions, each one of 2 divisions of 2 brigades of infantry, 1 brigade of cavalry, 1 brigade of artillery, and 1 section of train. There are 62 brigades of infantry and 3 brigades of rifles; 5 cavalry divisions, with 18 brigades of cavalry; and 14 brigades of artillery, and 14 mountain-batteries. The 102 regiments of infantry are drawn from as many recruiting districts, in addition to which the Tyrol and Vorarberg furnish 4 regiments of Tyrolian jägers, 3 districts of the Adriatic littoral furnish marine troops, and 4 districts of Bosnia and Herzegovina furnish regiments which are incorporated in the Austro-Hungarian army. The infantry have the Mannlicher rifle of the model of 1895, of 8-millimeter caliber, with a maximum range of 500 meters; and 8 regiments of cavalry, consisting of 15 regiments of dragons, 16 regiments of hussars, and 11 regiments of uhlans, are armed with sabers and repeating carbines. The field-artillery, consisting of 14 regiments of corps and 42 regiments of divisional artillery, have guns of tempered bronze, those of the field-batteries having a caliber of 9 centimeters, the mountain guns a caliber of 12 centimeters. The effective strength for 1901 of the common army was 3,597 superior and staff officers, with 2,736 men; 1,697 officers and 7,135 men attached to the military establishments; 8,428 officers and 161,602 men in the infantry of the line; 1,019 officers and 16,536 men in the Tyrolian jägers and rifle battalions, 1,890 officers and 45,906 men in the cavalry; 1,047 officers and 25,536 men in the field-artillery; 422 officers and 7,786 men in the fortress-artillery, organized in 6 regiments and 3 separate battalions; 495 officers and 8,445 men in the pioneers, of which 1,047 officers and 1,490 men forming 1 regiment of 12 companies of railroad and telegraph troops; 79 officers and 2,364 men in the hospital corps; 417 officers and 13,931 men attached to the depots; 2,415 officers and 20,996 men forming 38 infantry regiments, and 246 officers and 4,231 men forming 6 cavalry regiments and 3 squadrons of Austrian Landwehr—total, 2,601 officers and 25,088 men, and 2,239 officers and 20,996 men forming 28 infantry regiments and 390 officers and 4,231 men forming 18 cavalry regiments of Hungarian Honved—total, 2,629 officers and 25,927 men. Total peace strength, 26,070 officers and 333,808 men, with 63,424 horses and 1,048 guns. The annual contingent of recruits for the common army is 103, 100 men; for the Austrian Landwehr, 10,000 men; for the Hungarian Honved, 12,500 men. The Landwehr and Honved, in which the period of service is twelve years, are called out for instruction only. The term of active service is three years in the common army and seven years more in its reserve. In addition to the recruits taken for active service, both the common army and the separate national armies have lists of substitutes or Ersatz troops who can be called out to fill any vacancies that occur. All who are called out in the common army or in the Austrian or Hungarian national army are not inscribed in the Ersatz reserves are enrolled in the Landsturm and may be called out by the Emperor-King's order to fill gaps in either the common army coin or the Landwehr of their own country, but Austrians may not be ordered to fight beyond the frontiers of Austria nor Hungarians outside of Hungary without a special legislative act of their Parliament.

The Navy.—The Austro-Hungarian navy is small, being designed principally for the defense of the Adriatic seaboard; but it is kept in a high state of efficiency. The Custoza, Erzherzog Albrecht, and Tegetthoff, of 5,900 to 7,400 tons, engine to steam 14 knots, are iron-clad battleships, with broadside batteries, built between 1872 and 1876, which have been refitted and re-armed with powerful batteries of 11-inch, 10-inch, 94-inch, and smaller guns. Kaiser Max, Don Juan de Austria, and Prinz Eugen, of 3,600, 3,600, and dating from the same period, have a heavy armament, and are good for coast defense, but too slow and not sufficiently protected to figure in the line of battle. The turret-ship Erzherzog Rudolf, of 6,000 tons and 12-inch armament, having a speed of 16 knots, and armed with 3 12-inch, 6 44-inch, and 2 24-inch guns, was built in 1887; and in the same year the 5,100-ton armored cruiser Zeligowin Stefanie, of 5,100 tons, with 9-inch armament, carrying 2 12-inch, 6 6-inch, and 2 24-inch guns, and having a speed of 17 knots. The Monarch, Empire, Vienna, and Budapest, of 5,000 tons, with 10.4 inches of Harvey armor, engines of 8,000 horse-power making 17 knots, 4 9.4-inch guns in their fore and aft turrets, 6 5.9-inch quick-firers in casemates, and 14 inch quick-firers, launched in 1895 and 1896. Of the same type improved are the more powerful Habsburg, Arpad, and Babenburg, launched in 1900, 1901, and 1902, having a displacement of 8,300 tons, 8.6 inches of Krupp armor, engines of 11,000 horse-power, and a main armament of 3 9.4-inch guns in turrets and 12 6-inch guns in casemates. Three new battle-ships have been begun which will have a displacement of 10,000 tons, 10 inches of armor, engines of 14,000 horse-power, and an armament of 3 11-inch and 14 6-inch guns. The armored cruiser Maria-Theresa, of 5,200 tons displacement, has a belt of 4-inch armor, engines of 9,000 horse-power capable of steering 19 knots, and an armament of 2 44-inch quick-firers and 11 Quick-firers. Of improved design is the Kaiser Karl VI, launched in 1900, displacing 6,100 tons, protected with 10.6-inch plates, having engines of 12,000 horse-power capable of making 20 knots, and armed with 2 9.4-inch guns and 8 5.9-inch quick-firers. Greater speed, dirigibility, cruising radius, and weight and energy of fire are to be attained in a cruiser of 7,400 tons which will have 8.7-inch armor and engines of 12,300 horse-power, and besides the fore and aft guns will carry 10 6-inch quick-firers. The protected cruisers Kaiserin Elizabeth and Kaiser Franz Joseph, launched in 1899, can make 19 knots with engines of 9,000 horse-power, and carry also the 2 9.4-inch breech-loaders, with 6 6-inch quick-firers. There are 6 protected cruisers of earlier construction, 4 coast-guards, 12 torpedo-boat, 4 monitors on the Danube, and a formidable flotilla of torpedo-boats, consisting of 32 of the first, 31 of the second, and 8 of the third arm. The personnel of the navy in 1901 consisted of 563 officers, 130 cadets, 15 paymasters, 62 surgeons, 157 engineers, 94 mechanics, 173 employees, and about 8,000 sailors for loros.

Commerce and Production.—The special imports into the Austro-Hungarian customs terri-

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This text continues with a detailed description of the military and naval forces of Austria-Hungary, particularly focusing on the army, navy, and related aspects of national defense and infrastructure.
tery, which includes Bosnia and Herzegovina, were valued at 1,064,600,000 crowns in 1900, and the imports of the same amounted to 1,045,000,000 crowns. The imports of raw cotton were 144,156,000 crowns in value; of coal, 112,317,000 crowns; of wool, 88,880,000 crowns; of silk, raw and manufactured, 74,250,000 crowns; tobacco, 55,551,000 crowns; machinery, 51,975,000 crowns; hides and skins, 49,468,000 crowns; coffee, 48,100,000 crowns; flax and jute, 45,972,000 crowns; books and prints, 39,045,000 crowns; copper, 35,510,000 crowns; eggs, 27,405,000 crowns; wine, 24,922,000 crowns; corn, 19,009,000 crowns; hogs, 8,327,000 crowns; wheat, 4,212,000 crowns; rye, 897,000 crowns; lard and bacon, 366,000 crowns. The exports of lumber and wood manufactures were 224,295,000 crowns in value; of sugar, 150,511,000 crowns; of eggs, 99,202,000 crowns; of linseed, 89,560,000 crowns; of cattle, 61,768,000 crowns; of horses, 54,945,000 crowns; of glass and glassware, 52,733,000 crowns; of barley, 52,733,000 crowns; of malt, 20,802,000 crowns; of gloves and shoes, 40,873,000 crowns; of glazed manufactures, 41,087,000 crowns; of coal, 23,050,000 crowns; of poultry, 21,387,000 crowns; of barrel staves, 18,626,000 crowns; of goose feathers, 18,872,000 crowns; of beans, 15,876,000 crowns; of hops, 14,210,000 crowns; of beer, 12,154,000 crowns. The values in crowns of the imports from the principal countries in 1900 were as follow:

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
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<tbody>
<tr>
<td>Germany</td>
<td>658,675,000</td>
<td>1,018,340,000</td>
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<td>Great Britain</td>
<td>409,584,000</td>
<td>229,597,000</td>
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<td>Italy</td>
<td>114,357,000</td>
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<td>United States</td>
<td>59,238,000</td>
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<td>India</td>
<td>43,819,000</td>
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<td>France</td>
<td>54,994,000</td>
<td>60,567,000</td>
</tr>
<tr>
<td>Turkey</td>
<td>41,824,000</td>
<td>63,019,000</td>
</tr>
<tr>
<td>Roumania</td>
<td>92,257,000</td>
<td>48,311,000</td>
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<tr>
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<td>34,174,000</td>
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<td>3,984,000</td>
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<tr>
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<td>27,435,000</td>
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<tr>
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<td>20,900,000</td>
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<tr>
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<td>13,510,000</td>
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<tr>
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<td>92,073,000</td>
<td>4,241,000</td>
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<tr>
<td>Dutch East Indies</td>
<td>20,478,000</td>
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The area under cultivation in Austria in 1900 was 28,243,198 hectares, of which 10,824,551 hectares were under farm crops, 7,127,327 acres in meadow and pasture, 9,777,815 hectares planted with forest trees, 371,242 acres in gardens, 242,063 acres in vineyards, and 106,445 acres covered with fish ponds and lakes. The yield of wheat from 1,065,000 hectares was 14,741,000 hectoliters; of barley from 1,234,000 hectares, 20,925,000 hectoliters; of oats from 1,899,000 hectares, 37,021,000 bushels; of rye from 1,707,000 hectares, 19,026,000 hectoliters; of pulse from 285,000 hectares, 3,144,000 hectoliters; of buckwheat from 164,000 hectares, 2,158,000 hectoliters; of corn from 385,000 hectares, 6,825,000 hectoliters; of other cereals from 9,000 hectares, 1,570,000 hectoliters; of potatoes from 1,168,000 hectares, 1,170,000,000 quintals; of sugar-beets from 240,000 hectares, 52,282,000 quintals; of other beets from 173,000 hectares, 2,648,000 quintals; of wine from 253,000 hectares, 5,313,000 hectoliters; of hops from 19,000 hectares, 90,000 quintals; of tobacco from 3,700 hectares, 53,000 quintals; of hemp from 33,000 hectares, 52,000 quintals; of flax from 72,000 hectares, 227,000 quintals. The production of coal in Austria in 1900 was valued at 47,195,000 florins; of lignite, 56,317,000 florins; of pig-iron, 41,152,000 florins; of lead, 2,361,000 florins; of silver, 1,954,000 florins; of zinc, 1,582,000 florins; of copper, 796,000 florins; of bronze, 769,000 florins. The total product of the mines was valued at 116,727,240 florins; value of furnace products, 49,987,000 florins. The production of coal in 1899 was 109,025,000 crowns; of lignite, 215,299,000 crowns; of iron ore, 18,944,000 crowns; of salt, 3,302,000 crowns; of graphite, 336,000 crowns; of silver, 39,573 kilograms; of copper, 8,111 kilograms; of zinc, 67,415 kilograms; of iron, 10,092,067 crowns; of lead, 106,503 crowns; of quicksilver, 5,104 crowns. The value of fish caught in 1900 was 1,584,298 florins in summer and 1,076,853 florins in winter fishing. The production of beer in 1899 was 19,573,547 hectoliters; of alcohol, 1,538,189 hectoliters. In Hungary the crop of wheat in 1900 from 3,664,000 hectares was 41,432,000 crowns; of barley from 1,808,000 hectares, 12,382,000 crowns; of oats from 1,982,000 hectares, 11,061,000 crowns; of rye from 1,118,000 hectares, 10,733,000 crowns; of pulse from 893,000 hectares, 3,008 crowns; of buckwheat from 25,000 hectares, 167,000 crowns; of corn from 2,968,000 hectares, 37,174,000 centners of beans, 15,876,000 crowns; of hops, 14,210,000 crowns; of beer, 12,154,000 crowns. The values in crowns of the imports from the principal countries in 1900 were as follows: | COUNTRIES | Imports | Exports |
The exports of flour were 156,628,000 crowns in value; of cattle, 92,361,000 crowns; of wheat, 4,451,000 crowns; of rye, 47,807,000 crowns; of eggs, 34,497,000 crowns; of wine, 32,336,000 crowns; of corn, 31,744,000 crowns; of oats, 30,465,000 crowns; of hops, 26,606,000 crowns. Of the imports 21.93 per cent. were raw products and 78.05 per cent. manufactures, while of the exports 60.78 per cent. were raw products and 39.22 per cent. manufactures. Of the imports 79.51 per cent., 823,834,033 crowns, came from Austria, and 7.55 per cent. of the exports, 949,759,655 crowns, went to Austria. From Germany the value of 54,533,198 crowns was imported, and exports to Germany amounted to 141,200,927 crowns. The imports from Great Britain were 15,956,251 crowns in value, consisting mainly of cotton cloth and tobacco; the value of exports to Great Britain, consisting principally of wheat flour and barley, was 28,031,318 crowns. The largest commercial intercourse, after these countries, is with Servia, France, Switzerland, Italy, and Roumania.

Navigation.—The number of vessels entered at Austrian seaports during 1909 was 107,580, of 1,514,100 tons. Of these 1,340,107 tons were entered at Venetian ports, 102,100 tons, and 1,053,107 tons, and 97,100 tons respectively at Austrian and Italian ports. Of the vessels 88 per cent., with 90 per cent. of the tonnage, were Austrian, Italy having the next largest percentage, and then Greece. At the port of Trieste 8,489 vessels, of 2,184,927 tons, were entered, and 8,487, of 2,106,289 tons, were cleared. The Austrian commercial marine on Jan. 1, 1900, comprised 12,059 vessels of all kinds, of 934,444 tons, with 32,416,251 crowns, or 1,052,947 crowns at the end of the year. At the Austrian ports there were 199 steamers, 190,620 tons, 154, of 198,322 tons, were ocean vessels, 1,453, of 22,651 tons, were coasters, and 11,002, of 22,458 tons, were fishing vessels and other small craft.

At Hungarian ports 19,223 vessels, of 2,223,302 tons, were entered and 19,218, of 2,220,723 tons, were cleared during 1909. At Flume were entered 10,739 vessels, of 1,081,151 tons; cleared, 10,732, of 1,084,329 tons. The commercial fleet of Hungary on Jan. 1, 1901, consisted of 61 ocean vessels of 62,639 tons, 62,639 tons, and 223 fishing vessels, etc., of 332 tons; total, 438 vessels, of 69,397 tons, of which 78, of 56,391 tons, were steamers. Post and Telegraphs.—There were 11,700 miles of railroad in Austria on Jan. 1, 1900, of which 4,713 miles were Governement railroads, 1,868 miles were private lines operated by the Government, 4,998 miles were owned and operated by companies, and 62 miles were foreign railroads. The number of passengers carried in 1899 was 142,296,000; tons of freight, 114,512,000; gross receipts, 230,387,000 florins; expenses, 193,412,000 florins; capital cost, £244,915,000.

In Hungary the total length of completed railroads on Jan. 1, 1901, was 17,108 kilometers, of which 13,406 kilometers were Governement railroads, and 3,661 kilometers were operated by companies. The number of passengers in 1899 was 64,412,000; tons of freight, 42,577,000; gross receipts, £11,472,000 sterling; expenses, £6,222,000; capital, £112,356,000.

The number of letters and postal cards that passed through the Austrian post-office during 1909 was 1,055,791,710; samples and printed matter, 137,625,510; newspapers, 107,738,700. The receipts were 87,718,310 crowns, and expenses were 85,111,819 crowns.

The number of letters and postal cards that passed through the Hungarian post-office was 319,770,000 in 1900; newspapers, 115,994,000; samples and printed matter, 51,906,000; money orders, 1,768,000; orders for delivery of goods, 1,465,794,000 sterling; registered letters and parcels, 20,016,000. The receipts of the postal, telegraph, and telephone services were 47,103,000 crowns; expenses, 30,614,000 crowns.

The total length of telegraph lines in Austria in 1900 was 24,480 miles, with 107,750 miles of wire. The number of messages in 1900 was 19,067,176. There were 298 telephone exchanges and 106 interurban circuits, with a total length of 79,750 miles of wire. The number of conversations in 1900 was 95,592,568. The telegraph lines of Hungary had a total length of 22,924 kilometers, with 114,831 kilometers of wire. The number of messages in 1900 was 14,370,849. There were 65 telephone exchanges, with 45 interurban circuits and connections with Vienna and Berlin. The total length of telephone wire was 74,093 kilometers. The number of conversations was 37,301,558.

The Triple Alliance.—The alliance between Germany, Austria-Hungary, and Italy, which expires in May, 1903, was prolonged in its original form for a further period of six years by a new treaty signed at Rome, April 26, 1902. A dual alliance between Germany and Austria-Hungary, arranged in a conference between Prince Bismarck and Count Andrássy in 1873, bound each of the contracting powers to come to the assistance of the other with its military and naval forces in case of an attack on both sides at the same time, an attack of France and Russia against Germany, to be regarded as an attack of Russia and Italy against the Austro-Hungarian dominions. There existed previously the Dreikaiserbund between the Emperors of Germany, Austria-Hungary, and Russia, an understanding reached in 1873, which the entente cordiale between France and Russia unsettled. Nevertheless the first German Emperor was reluctant to consent to the Austro-German military pact, deeming it incompatible with his political and family relations to the Emperor of Russia. After it was carried through Prince Bismarck always insisted that good understanding with Russia was an essential element of German policy, and after the dual alliance was expanded into a triple alliance by the adhesion of Italy, this military pact was uniformly spoken of as purely defensive, a guarantee of peace, an insurance against any disturbance of the existing equilibrium. When the relations between Italy and France became strained in consequence of the French occupation of Tunisia, Italy was easily persuaded to abandon her position of isolation and join, in 1883, the alliance of the central powers. Italian Irredentism in respect to the coast provinces of Austria thereby received a check and ceased to be a danger to the peace of Europe. A tariff war with France further estranged Italy from her former ally. The terms of the dual alliance were after a time disclosed to the public, but those of the tripartite treaty have always been kept secret, though it may be inferred that Germany can only call upon her allies for active assistance in the event of a double attack, but will assist if necessary either one of them which is attacked from one side only. The Egyptian strain of taxation and the likelihood that Italy would receive compensation on the Adriatic, the only field for national expansion, for any sacri-
AUSTRIA-HUNGARY.

offices she might make for her allies, has caused a considerable revulsion of public feeling at times in Italy. But never again did the successors of Crispi abandon the alliance which he formed. A better feeling toward France and better trade relations did not alter the policy of the Italian government. In 1898, however, led that Government, before the alliance was renewed for twelve years on May 6, 1891, to press for favorable commercial terms. The complaints of Italians regarding the excessive burden of the military and naval armaments that Italy has kept up in her ambition to maintain her position among the great powers drew from the responsible statesmen of the allied powers the admission that the treaty does not compel Italy to mobilize any specified number of army corps or to bring her armed strength up to any particular standard. When the Franco-Russian entente cordiale matured into the dual alliance between the French Republic and Russia as an open rejoinder to the triple alliance, stress was laid on the pacific nature and conservative purpose of the dual alliance by its authors and its value in insuring peace as a counterpoise to the triple alliance, and those concerned in the latter reiterated their peaceful intentions. Just as the continuance of the political friendship and dynastic intimacy between Germany and Russia did not preclude the conclusion of the Austro-German alliance and subsequent Dreibund, an agreement made later between Austria and Russia to maintain the status quo in the Balkans was held to be perfectly compatible with the obligations of Austria toward her allies. In the same principle, when a rapprochement was attained in the spring of 1902 between Italy and France by an agreement on the part of the latter to respect the Italian sphere of interest in Tripoli, this separate understanding was not regarded as inconsistent with the fresh renewal of the triple alliance. Italy urged the need of advantageous terms for Italian products in the new commercial treaties as a necessary condition to her preserving the military strength that makes her alliance valuable to her allies. She made or assured guarantees without any such stipulations being embodied in the treaty of alliance, which the successive German Chancellors have averred is not so related with. Count von Bülow likened the triple alliance to an insurance company rather than to an association for profit, and repeated the declarations that it is pursued against peace, that it entails no obligations on the members to maintain their military or naval forces at a prescribed level, and that it is no artificial combination, but corresponds to a natural and historical balance of power, tending now even more than in the beginning to the preservation of the peace of the world, since the political combinations of the present go beyond the limits of Europe and the basin of the Mediterranean, the interests of the great powers embrace the whole world, and none of them can wage war in Europe without reflecting on far-reaching hazards in other quarters.

Count Goluchowski, when announcing on the meeting of the Delegations in May the approaching prolongation of the triple alliance, spoke of the fulfillment of its aim and an assistance in the fulfillment of its task and of the extension of such political arrangements for the maintenance of the status quo to extra-European countries as a proposition. A Japanese treaty guaranteeing the integrity of China and Korea, just as the Austro-Russian entente insures the integrity of the Balkan countries, Special agreements made by individual powers belonging to the different groups concerning specific interests which affect them alone, as evidenced by the confidential relations existing between France and Italy or the satisfactory development of Austro-Russian relations resulting from the secret conference of 1897, are not opposed to the general principles which brought about the union of the principal groups. The agreement of France to respect Italy's aspirations in Tripoli, and perhaps also to intervene in no way to frustrate her ambitions in Carniola and Istria and in Albania, Italy leaving to France a free hand in Morocco, deploys all its forces, and practically ends the Anglo-Italian Mediterranean agreement, leaving England without a supporter for her claims to a share in the division of Morocco and with no ports save her own as naval bases from which to conduct operations in the Mediterranean unless she shall enter into a similar alliance with Spain. It was England herself who caused the defection of her ally and the Franco-Italian rapprochement when in bargaining over protectorates and spheres of influence in various parts of the world she conceded to France the Hinterland of the latter, which France has used to purchase the friendship of Italy and the isolation of England in the matter of more vital interests, probably by resigning the French claim to the division of Italy. It is said that in connection with the old treaty Italy entered into an engagement to send in the event of an aggressive war on Germany and Austria, an army corps to take up a position with the German army on the Rhine and an army corps through Hungary to be placed under the command of King Carol of Roumania and to invade Bessarabia alongside of Austrian and Roumanian troops. These obligations are supposed to have been omitted from the military agreements and plans of campaign adopted when the new treaty was signed, which itself was officially stated to be identical with the original treaty of alliance, and like it is to be kept secret, although the Austrian and Italian governments are believed to have made up for the setback by increased armament. The idea that a political alliance can subsist concurrently with a commercial war has been repudiated by Hungarian statesmen more outspokenly than questions. Count von Bítlow likened the triple alliance to an insurance company rather than to an association for profit, and repeated the declarations that it is pursued against peace, that it entails no obligations on the members to maintain their military or naval forces at a prescribed level, and that it is no artificial combination, but corresponds to a natural and historical balance of power, tending now even more than in the beginning to the preservation of the peace of the world, since the political combinations of the present go beyond the limits of Europe and the basin of the Mediterranean, the interests of the great powers embrace the whole world, and none of them can wage war in Europe without reflecting on far-reaching hazards in other quarters.

As to the practical application of the military convention, the danger of such wars as it contemplates is much more remote now than when
AUSTRIA-HUNGARY.

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it was originally concluded. The French people do not yield to the despotic rule of the Hapsburgs in their lost provinces, yet the impulse of revenge no longer stirs the nation, since Germany has given up the attitude of truculent provocation for one of studied courtesy, which the French Government is constrained by national feeling to receive but coolly. No more have the Italians abandoned their aspirations for the unredeemed Italian lands and the shores of the Adriatic, nor does the Hapsburg monarchy cease to contemplate the prospect of an Austrian port on the Mediterranean, nor has Russia resigned her secular ambition to hold the seats of the Eastern Empire or given up the role of guardian of all the Slav peoples. The chance, however, of a new war over the Eastern question seems less likely than a peaceful division if the Turks are to be driven out of Europe. Germany from the start refused to support the ambition of Austria. When the triple alliance was new Bismarck declared that to Germany the Balkan peninsula was not worth the bones of a Pomeranian grenadier. A collision of the great Continental armies in central Europe over Alsace, Luxembourg, Belgium, the Germans of East Prussia and Austria or any other question seems impossible. So well protected are the frontiers, so destructive the modern weapons, so enormous the forces that an attack would be like national suicide. The renewal of the triple alliance was followed by a meeting of the German Emperor and the Czar, who was visited by the President of the French Republic in return for a journey to the German Empire. The Czar paid a visit to the Czar and stopped in Berlin, but did not go to Vienna.

The Ausgleich.—The acrimonious conflict between the Austrian and Hungarian governments over the renewal of the Ausgleich, which has been kept up almost uninterruptedly for six years, reached a critical stage in the summer of 1902, when negotiations were broken off until the Emperor intervened between the two Prime Ministers. Dr. von Kőrber gave warning that Austria had made the last concessions in regard to the autonomy of the Hungarian Parliament still insisted on its demands. The Austrian Reichsrath, which came to a deadlock six months before over the language question and was brought into working order again only by a threat from the Prime Minister to suspend the Constitution, gave the Government united support in its insistence on the Austrian views, and it was the general feeling that in the concessions already offered Austria sacrificed her interests to such an extent that the Ausgleich when concluded on such terms would be the last one. The danger of an immediate disruption of the customs union seemed to be averted. Meanwhile the continuance of the deadlock placed Austria-Hungary at a disadvantage in respect to the negotiations with other nations for the new commercial treaties, for until the fiscal relations of the two halves of the monarchy were settled there was no adequate basis for these negotiations. The discussions over the tariff involved many technical questions. In the main the Hungarians desired to protect their agriculture by the imposition of high duties on foodstuffs and raw materials, while the Austrians wanted to be protected against arbitrary interpretations by the Hungarian authorities that would give an unfair advantage to the industries of Hungary which the landing of foreign goods in Vienna through the domestic market from the Austrian manufacturers by granting subsidies, remitting taxes, and allowing discriminating railroad rates in contrast to what the Austrians hold to be the spirit of the customs union. Austria is a strong party in favor of an independent customs territory, and in Austria the idea of the economical separation of the two monarchies has taken root, though the real country man's effort would be required to adjust business to such a condition.

Austria.—The legislative authority for the empire is vested in the Reichsrath, but each province possesses a large measure of autonomy and has its Landtag to legislate on all matters not reserved by the Constitution for the Reichsrath, which has general authority to legislate on all matters concerning rights, duties, and interests that are common to all the lands represented in the Reichsrath. The Reichsrath is composed of a Herrenhaus an an Abgeordnetenhaus. The Herrenhaus contains 14 princes of the imperial family, 27 heads of the territorial families, 5 cardinals, 6 prince-bishops, and 140 members nominated for life. The Abgeordnetenhaus contains 425 members elected for six years—85 by large proprietors, 118 by towns, 21 by chambers of commerce and trade councils, 129 by rural communities, and 72 by priests and Catholic monks. The general male population paying 4 florins in direct taxes or otherwise qualified. The ministry in office at the beginning of 1902 was composed as follows: President of the Council and Minister of the Interior, Dr. E. von Kőrber; Minister of National Defense, Graf Zeno von Welsersheim; Minister of Finance, Dr. E. Ritter Böhm von Bawerk; Minister of Railroads, Dr. H. Ritter von Wittek; Minister of Justice, Baron A. Spens von Booden; Minister of Public Instruction and Worship, Dr. W. Ritter von Hartel; Minister of Commerce, Baron G. von Call von Cullmbach and Rosenberg; Minister of Agriculture, Baron K. de Giovanelli; without portfolios, Dr. A. Rezek and Dr. Leonard Pietak.

Area and Population.—The area of Austria is 115,003 square miles. The population according to the census of Dec. 31, 1900, was 26,150,597, or 226 to the square mile. The increase in ten years was 2,214,802, or 9.04 per cent of the previous population. The area of the individual provinces and their population in 1890 and 1900 are given in the following table:

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<tr>
<th>PROVINCES</th>
<th>1890</th>
<th>1900</th>
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<tbody>
<tr>
<td>Lower Austria</td>
<td>2,581,739</td>
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<tr>
<td>Upper Austria</td>
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<td>713,696</td>
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<td>Salzburg</td>
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<td>Galicia</td>
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<tr>
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<tr>
<td>Dalmatia</td>
<td>328,468</td>
<td>338,783</td>
</tr>
<tr>
<td>Total</td>
<td>115,003</td>
<td>28,809,415</td>
</tr>
</tbody>
</table>

The number of marriages in 1900 was 214,214; of births, 637,938; of deaths, 635,880; excess of births, 300,058. The number of Austrian emigrants who sailed from German and Dutch ports in 1900 was 94,611, of whom 91,788 were destined for the United States, 178 for Brazil, and 131 for the Argentine Republic. The population of the chief towns on Dec. 31, 1900, was as follows: Vienna, 1,674,937; Prague, 201,589; Lemberg, 159,987; Graz, 138,080; Trieste, 134,143; Brunn,
109,346; Krakau, 91,323; Pilsen, 88,079; Czernowitz, 67,022; Linz, 88,781.

The budget for 1902 was esti-
mated at 1,685,906,357 crowns, from the follow-
ing sources: Reichsrath and Council of Min-
isters, 1,705,936 crowns; Ministry of the Interior, 2,358,411 crowns; Ministry of Justice, 1,563,137 crowns; Ministry of Agriculture, 2,109,922 crowns; Ministry of Justice, 2,654,558 crowns; pensions, 2,674,854 crowns; state debt, 1,246,500 crowns; debt administration, 1,600,000 crowns; sale of state property, 1,078,352 crowns. The total expenditures for 1902 were estimated at 1,985,17,944 crowns, distributed as follows: Imperial Household, 9,300,000 crowns; Imperial Cabinet Chancellery, 179,338 crowns; Reichsrath, 2,688,569 crowns; Supreme Court, 49,724 crowns; Council of Ministers, 3,098,028 crowns; contribution to common expenditure, 268,478,177 crowns; Ministry of the Interior, 68,033,678 crowns; Ministry of Defense, 60,823,851 crowns; Ministry of Instruction and Worship, 7,000,269 crowns; Ministry of Agriculture, 291,813,310 crowns; Ministry of Commerce, 36,109,922 crowns; Ministry of Agriculture, 1,705,936 crowns; Ministry of Commerce, 130,413,080 crowns; Ministry of Railroads, 242,392,720 crowns; Ministry of Agriculture, 46,999,062 crowns; Ministry of Justice, 71,935 crowns; Board of Control, 400,800 crowns; pensions, 60,276,080 crowns; subventions and donations, 16,618,110 crowns; state debt, 353,913,528 crowns; debt administration, 1,504,045 crowns. Extraordinary expenditures amounting to 562,000,000 crowns for railroad construc-
tion and similar objects will be spread over five years ending with 1905. The total receipts of the Government in 1899 amounted to 932,713,000 florins, or 1,865,550,000 crowns, and expenditures to 970,401,000 florins, or 1,940,602,000 crowns.

The national debt on June 30, 1901, amounted to 3,621,157,782 crowns, including a floating debt of 13,017,062 crowns. The annual charge for inter-
terest and amortization of the general debt falling to Austria's share was 189,028,360 crowns.

Policy and Legislation. — The Pan-Ger-
manic propaganda has been openly carried on in Austria with funds collected in Germany. The extremists of the German Liberal party, es-
pecially the politicians who have borne an active part in the war of languages, those representing German constituencies in Bohemia, go to the length of advocating the annexation of German Austria, and Bohemia and other of the Slav lands as well, to the German Empire. Those who dream of a greater Germany expect to ab-
sorb the Italian coast provinces also so as to make Germany a Mediterranean power, and in the north Holland and Flanders and the Baltic provinces of Russia. In 1902 an earnest cam-
paign was begun among the Saxons of Transy-
via, who are abstracting under the present Mag-
nyarizing policy of the Hungarian Government, which proceeded to repress the agitation with more energy than the Austrian Government has shown. The loss of the Austrian Empire in Austria, the conversation of Roman Catholics to the Evangelical creed, is purely political in its origin and intent, yet numerous German pastors have gone to the Holy See to protest against the fact. The Aus-
trian authorities have taken no energetic steps to abate the German demonstrations, merely regarding them as a phase in the race and language con-
lict, calling for no interference with either the
German or the Czech agitators except when they come to blows. Since the Austrian Government refrains from repressing the treasonable utter-
nances of its own citizens it can not call upon
Germany to take action against those who in-
spire and aid and abet them from over the border. Therefore Count Goluchowski could describe the
attitude of the Prussian, Saxon, and Bavarian
governments as perfectly correct. In March the
Pan-Germanic group in the Reichsrath created a
scandal by offering cheers for the Hohenzollerns.
The Pan-Germanic League, after setting on foot
the German agitation in Transylvania, encoun-
tered such resistance that the movement was
abandoned. The Germans and the Young Czechs
in the Reichstag several times had violent alter-
cations. The suggestion of a commercial alli-
ance of European nations to carry on a general
tarf war against the United States had its ori-
gin among the Pan-Germans. The pearl-button
and several other peculiarly Austrian industries have been seriously affected by the starting of
competing establishments in America. In Ger-
many the official and the general popular opinion
was antipathetic toward the machinations of
the Pan-Germans in Austria. After the words were recalled that if Austria did not exist it
would have to be invented. A conflict about
a high school at Cilli recalled the animosities
between Slava and Germans. The town is com-
p
ded of a German population, but it is the cen-
ter of a district in which the Slovenes greatly
predominate. It was proposed that instruction in
the Slovene language, which was used in the
schools of the lower classes, be discontinued there and
transferred to some other town. When this mo-
tion was defeated by a majority consisting of
Czechs, Poles, and German Ultramontanes, the
German People's party and other factions of the
Germans declared war on the Slava. The minis-
try found a way of solving this difficulty by
granting the Slovenes satisfactory compensa-
tion and to the Germans their demand, which was in accord with the principles of the lan-
guage ordinances which the Czechs asked to
have reenacted. When another question of the
sort was brought up in the Reichsrath before
this one was settled, the Germans on being de-
feated in the vote made a riotous uproar which
broke up the sitting. The nation's attitude in
Bohemia rendered the proceedings of the Land-
tag quite sterile. The Czechs demanded the rec-
ognition of a Bohemian constitution, the Ger-
mans the establishment of German as the state
language.

In the early part of the year occurred labor
riots in Trieste, which were brief, but of an ex-
traordinarily violent character because of the
intervention of anarchists of the Italian type.
The stokers on the Austrian Lloyd steamships
having struck work, the trade-unionists of the
city, who have a united labor association, threat-
ened a general sympathetic strike, which was
speedily set in motion, first by the workmen in
the shipyards, then by the employees on the
street-cars and the railroads, and finally by the
gashouse workers. All traffic and business
stopped. The union leaders warned the strikers
against violence, but agitators induced some of
them to enforce the destruction of works and throw-
ing missiles into premises where production was
going on and to attack the residence of the
Statthalter. The police and military proceeded
to suppress violence with iron hand and in
turn attacked furiously. The result was that
the troops used their firearms twice, killing and
wounding 40 rioters, while numerous injuries were inflicted with bayonets. Many arrests were made, and the Government justified the severity of the measures taken on the ground that the disturbances were revolutionary. Among the persons arrested were well-known anarchists.

Hungary.—The legislative authority is vested in a Parliament consisting of the House of Magnates and the House of Representatives. The House of Magnates is composed of 17 royal archdukes, 55 ecclesiastical dignitaries, the 10 banerets of the kingdom, the Count of Presburg, the 2 keepers of the crown, the 2 presidents of the administrative court, the president of the royal table of Budapest, 3 delegates of the Diet of Croatia-Slavonia, the Governor of Fiume, 7 princes, 169 counts, and 49 barons sitting as hereditary members, 50 members nominated for life by the King, and 27 members elected by the House of Magnates. The House of Representatives consists of 413 members elected for five years or the duration of Parliament by the counties and towns of Hungary and 40 delegates.

THE NEW HUNGARIAN HOUSES OF PARLIAMENT—THE FRONT ON THE DANUBE.

elected from among its own members by the Diet of Croatia-Slavonia.

The Council of Ministers constituted on Feb. 25, 1899, was composed as follows: President of the Council, Koloman Szell; Minister of National Defense, Baron Geza Fejervary; Minister of Finance, Dr. Ladislaus de Luca; Minister of Worship and Public Instruction, Dr. Julius de Wlassics; Minister of Agriculture, Dr. Ignatius Daranyi; Minister of Croatia-Slavonia, Ervin de Cseh; Minister of Justice, Dr. Alexander Ploss; Minister of Commerce, Dr. Alexander Hegedus; Minister of the Imperial Cabinet, Count Emanuel Szcheny.

Area and Population.—The area of the Hungarian dominions, including Croatia and Slavonia, is 322,310 square miles. The population enumerated in 1921, 1900, was 15,092,282, an increase of 7,42,994 since 1890. Hungary proper, with an area of 108,258 square miles, had 15,050,904 inhabitants, 153 to the square mile; the town of Hungary, having an area of 8 square miles, had 38,129; Croatia and Slavonia, with an area of 16,73 square miles, had 2,397,249, or 149 to the square mile. These figures do not include the population in active military service, which numbered 114,811, making the total population of Hungary 19,207,103.

The number of marriages in 1900 was 160,687; of births, 766,673; of deaths, 531,189; excess of births, 237,484. The number of emigrants in 1900 was 54,767, of whom 41,230 passed through German ports and 13,447 through other European ports. The population of the principal towns on Dec. 31, 1900, was as follows: Budapest, 732,322; Szeged, 102,991; Szabadka, 82,122; Debrecen, 75,006; Pozsony, 65,867; Zagreb, 61,092; Hodmez-Vasarhely, 60,883; Keckesemét, 57,812; Arad, 56,200; Temesvar, 53,033; Nagyvarad, 50,177.

Finances.—The revenue of the Hungarian Government in 1900 was 1,042,023,000 crowns from ordinary and 155,015,000 crowns from extraordinary sources; total, 1,197,038,000 crowns. The revenue for 1901 was estimated at 1,056,582,267 crowns, and expenditure at 1,056,556,417 crowns. The estimated revenue for 1902 was 1,088,870,018 crowns, of which 1,035,200,008 crowns were from ordinary and 51,069,410 crowns from extraordinary sources. Of the ordinary revenue 218,000 crowns were from pensions, 2,510,331 crowns from state debts, 201,466 crowns from restitution of loans to various portfolios, 331,392 crowns from redemption of advances from guaranteed railroads, 2,000 crowns from the Ministry of Finance, 7,915,915 crowns from the Ministry of the Interior, 604,365,837 crowns from the Ministry of Finance, 279,290,840 crowns from the Ministry of Commerce, 58,579,910 crowns from the Ministry of Agriculture, 5,358,413 crowns from the Ministry of Worship and Instruction, 1,797,909 crowns from the Ministry of Justice, and 598,415 crowns from the Ministry of National Defense. The ordinary expenditures were estimated at 992,204,074 crowns, transitory expenditures at 34,300,047 crowns, investments at 66,184,382 crowns; total expenditure, 1,080,740,083 crowns. Of the ordinary expenditure 2,300,000 crowns were for the civil list, 179,338 crowns for the Cabinet council, 1,553,018 crowns for Parliament, 72,640,293 crowns the Hungarian contribution to common expenditure, 41,325 crowns for pensions charged to common expendi-
ture, 20,593,597 crowns for Hungarian pensions, 290,997,781 crowns for the national debt, 27,956,407 crowns for the maintenance of the railway service, 6,156,266 crowns for the purchase of forage, and 3,896,849 crowns for the relief of the distressed farmers. The total of the national expenditures for the year 1901 amounted to 2,319,433,265 crowns.

Protest in Croatia. - The Board of the Croatian Commercial Association in Slavonia called a meeting to consider the recent measures of the Austrian Government. The representatives of the association, who were present in large numbers, deplored the restrictions imposed on commerce and industry. They declared that the recent measures were calculated to benefit only the larger industrialists and that the smaller industrialists would suffer severely. They also condemned the recent measures as being contrary to the principles of the Austrian Constitution.

The undersigned have joined in the protests of the agriculturalists of Slavonia against the recent measures. The undersigned have asked the Government to reconsider its measures and to take steps to alleviate the difficulties of the small farmers. The undersigned have also asked the Government to reconsider its measures with regard to the agricultural interests.

Politics and Legislation. - Under the pressure of the Chamber of Deputies, the Government decided to consider the proposals of the Chamber. The Chamber of Deputies passed a resolution condemning the measures of the Government as being contrary to the principles of the Austrian Constitution. The Chamber of Deputies also passed a resolution condemning the measures as being contrary to the principles of the Austrian Constitution.

The undersigned have joined in the protests of the Chamber of Deputies against the recent measures. The undersigned have asked the Government to reconsider its measures and to take steps to alleviate the difficulties of the small farmers. The undersigned have also asked the Government to reconsider its measures with regard to the agricultural interests.
The American Baptist Year-Book for 1902 gives the following statistics of the regular Baptist churches in the United States: Number of associations, 1,691; of churches, 44,453; of ministers, 30,561; of members, 4,289,063; of baptisms during the year, 207,515; total amount of contributions, $14,136,105; value of church property, $21,143,600. An increasing trend was shown for the year of 11 associations, 494 churches, 35,377 members, 10,280 baptisms, $347,905 in contributions, and $1,243,500 in value of church property. A slight gain is also shown in the aggregate of contributions per capita and increase of 2,011 Sunday-schools, 3,838 teachers, and 48,649 pupils.

The Baptists have in the United States 9 theological seminaries, with 74 teachers, 1,018 students, real estate valued at $1,165,538, and $2,759,556 of endowments; 103 universities and colleges, with 1,220 professors, 28,020 students, $17,984,798 of property, and $18,297,470 of endowments; and 91 academies, with 737 teachers, 12,907 students, $4,723,022 of property, and $1,301,115 of endowments.

One hundred and seventeen newspapers and periodicals are published in affiliation with Baptist churches.

The members of the Baptist churches in the United States are thus classified according to sectional and racial affiliations: Northern Baptists, 1,059,753; Southern white Baptists, 1,026,716; Southern black Baptists, 207,000. Compared with similar returns for 1901, these figures show gains in one year of 3,700 Northern Baptists, 21,339 Southern white Baptists, and 10,742 Southern black Baptists. That growth, however, be made for probable inaccuracies in the count of the negro Baptist.

The seventy-eighth annual meeting of the American Baptist Publication Society was held in St. Paul, Minn., May 22 and 23. The receipts for the year from sales in the publication department had been $304,755. In the missionary department $114,610 had been received from churches, individuals, income from invested funds, and bequests, exceeding the receipts of the previous year by $5,092; yet through the increase of missionary work and the enlargement of beneficence an additional deficiency of $6,622 had been incurred, making the total indebtedness $35,047. The receipts for Bible work had been $11,941. In addition to these amounts there had accrued to the missionary department $10,300 in annuity funds, and $40,000, a special gift, from an anonymous donor. The total receipts during the year from all sources had been $350,981. More of the books published by the society had been sold during the past year than in any previous year of its history. Among the publications of

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American Baptist Home Mission Society.

The seventeenth anniversary meeting of the American Baptist Home Mission Society was held in St. Paul, Minn., May 24 and 26. Although the year had closed with a nominal debt of $13,629, it was regarded as having been one of exceptional prosperity. The total receipts had been $614,223, of which $4,212 had come from Sunday-schools and $2,262 from Young People's Societies. The receipts from legacies had been $78,348; $8,150 had been added to the permanent fund; and $40,553 to the conditional fund. While $67,776 had been put into enlarged facilities for the schools. The expenditure had been greater in consequence of the enlargement of both educational and missionary work; of it $207,065 had gone for missions and $110,229 for education. Within the last five years 175 churches which had been aided by the society had become self-supporting. The church at Monterey, Mexico, was approaching that point, and the church at Santiago, Cuba, had voluntarily assumed a part of the support of its pastor. Twelve hundred and seventy-eight missionary laborers and teachers had been supported wholly or in part by the society, viz., 45 in the Middle and Central States, 229 in the Southern States, 878 in the Western States and Territories, 10 in Canada, 20 in Mexico, 1 in Alaska, 6 in Cuba, 2 in Porto Rico. Six hundred and two missionaries and 13 teachers had labored among the foreign populations (French, Scandinavian, and German), 56 missionaries and 210 teachers among the colored people, the Indians, and the Mexicans; besides 7 day-schools for the Chinese, 1 day-school in Utah, 2 in New Mexico, 1 in Cuba, and 2 in Porto Rico; in all, 46 schools. Steady progress had taken place in the general character of the work done in the schools receiving the support of the society. Special emphasis had been placed upon industrial training at several of the schools, and it was believed that superior work in this line was being done. Eighty churches had been aided during the year by gift or loan, or both. The amount of money in the gift fund available for the erection of meeting-
houses had been $25,511, and this had been distributed among 74 American Baptist Missionary Union.—The eighty-eighth annual meeting of the American Baptist Missionary Union was held in St. Paul, Minn., May 21 and 22. The financial receipts of the year from all sources had been $886,518, of which $385,285 had come in the form of donations and $115,561 through the woman's societies. These receipts had been sufficient to meet the appropriations for the year's work, and to afford a surplus of $2,840 to be applied to the reduction of the deficit of $38,279 brought over from the year before. One hundred and seventy-eight missionaries were employed. The missions in heathen lands returned 112,000 members, and those in "nominally Christian" lands 117,000 members, and 192,923 baptisms, or a total of 2,857,973 for the year. The foreign secretary conducts the correspondence with foreign countries. The treasurer attends to the disbursement of money under the direction of the Executive Committee. The accounts of the treasurer in the United States are made up annually on April 1. The accounts for the foreign field are made up on Oct. 1; and the financial year of this country and of foreign countries differ, therefore, by six months. The Executive Committee meets after the adjournment of the general meeting, and considers and prepares a list of appropriations for the coming year, beginning with the Ist of the next October. Into that budget is put every expenditure which can be foreseen or estimated, and the whole is appropriated at one time; and to this amount additions are made as emergencies arise, from time to time. Hence, when the treasurer reports a debt on April 1, it does not necessarily mean that he has a moneystone, but simply that he has not in hand sufficient money to meet all his payments to the 1st of the next October—six months in advance. A mission treasurer is connected with one—Burma, the mission. The budget has been made out, the foreign secretary notifies each missionary of the amount which he has at his disposal for all purposes for the coming year; and, beginning with the 1st of each month, the treasurer notifies each of the mission treasurers what amount he is authorized to pay to each missionary. The Missionary Union becomes thus, in effect, a foreign banking-house. It keeps its own account in London, draws its own bills of exchange, and does its own financing. The credit of the union is unquestioned. The invested funds of the union consist of $800,000, which were given on the condition that they should be invested and the income only expended; and $380,000 subject to annuities. The union owns real estate in nearly every country in which it works, having a total value of $800,000 to $1,000,000. In educational work the union has confined itself as far as possible to the preparation of ministers, native workers, and evangelists; only in the last year, the union has given $35,000 for the support of theological schools, colleges, and preparatory schools are established where they seem to be absolutely necessary and can be advantageously used. Among the schools there are 7 theological schools and 4 colleges. In many countries the union is obliged to print its own literature; and in some of these the written and printed language, the inhabitants having never had such, was made by its missionaries. Medical work and hospitals are conducted in subordination to the missionary and spiritual work. In all its operations the Executive Committee is simply seeking to bring the religion of Jesus Christ to the knowledge, and if possible to the acceptance, of those people who have not heard it.

Relations of the Woman's Societies.—At the mid-year meeting of the boards of all the Baptist missionary societies (Northern), held in New York in December, 1901, a joint committee was appointed, consisting of representatives of the American Baptist Missionary Union and the four Woman's Baptist Foreign Missionary Societies of the East, the West, of Oregon, and of California, every two weeks, so that a relationship could be established between the parent organization and its auxiliaries. A pre-
Primary meeting of this committee was held in Boston, Jan. 28, 1902, at which the three Western societies were represented by letters; and further correspondence a final meeting was held Feb. 19, at which the three larger societies were represented by delegates, and those of California and Oregon by letter. A report was unanimously adopted at this meeting, and afterward approved by the board of the societies concerned, in which the absolute need of "woman's work for women" was asserted. The belief was expressed that the educational work in missions which the woman's societies are doing in our own country through the instruction of children in Sunday-schools, the preparation and distribution of literature, and the stimulation of a more thorough study of missions by ministers of women and girls, with their training in habits of benevolence, is a sufficient reason for the existence of these societies, and we would deprecate any effort which might interfere with their sense of individual responsibility." A continued separate organization of the woman's societies of the East and the West was regarded as desirable, with the states of Oregon and California with that of the West was advised. Respecting the unity of the work of all the societies, the report continues: "We consider that the unity of the work must be maintained. The foreign work, which funds are duly sent to the treasury of the Missionary Union, and are finally administered by the Executive Committee of the union. The title to all property in foreign countries, acquired by the money collected by the woman's societies, is held by the Missionary Union; all women candidates are appointed, and their fields are designated by the Executive Committee, and their salaries are paid by order of the Executive Committee through the treasury of the Missionary Union; every appropriation for the foreign work of the woman's societies is submitted to the Executive Committee, and can become operative only with their approval. The woman's societies also appropriate large sums for educational, medical, and evangelistic work, at the request of the Executive Committee, to support work where the woman's societies have no representative." The woman's societies method of raising funds "quietly among the women themselves, by means of envelopes or mite-boxes" was commended as preferable to that of making promiscuous appeals to the whole congregation.

Joint Conference of Societies.—A joint conference of the American Baptist Missionary Union, the Publican Society, and the Home Mission Society was held at St. Paul, Minn., May 12, to hear reports and consider questions concerning the relations of the three societies. The report of the Commission on Systematic Benevolence, which was referred to this meeting from the several societies, related the history of the work of the commission, and closed with a recommendation that it be discontinued; whereupon the presidents of the several societies were requested to appoint a committee of 7 members for each on Christian stewardship for three years, whose duty shall be to foster the work already done by the Commission on Systematic Benevolence, to conduct house-to-house visitation work, and also to supervise a campaign of education in the fundamental principles of Christian stewardship among the churches. Contingent upon its securing a sufficient guarantee fund for three years by special subscription this committee was authorized to appoint a superintendent to give his whole time to the work, but who should in no respect be regarded as a special representative for any one of the societies. It was decided that in connection with the anniversaries each year, a session should be devoted to hearing the annual report of this committee, and to the consideration and discussion of the whole question of Christian stewardship. The committee of 3 members from each of the 3 societies on collecting agencies reported concerning the investigations they had made, recommending the continuance of the policy of the employment of district secretaries, but adversely to the combination of the offices, so that one man shall represent the 3 organizations in a given territory, while suggesting that an experimental trial of the plan might be made in a selected district. The plan called the "wheel plan," under which causes are each exclusively presented in rotation, in a given territory, at proper intervals, was unanimously approved by the committee and recommended by the conference. One recommendation of the committee related to conferences between the several secretaries and the committees of arrangement of State conventions and local associations, looking to the avoidance of congestion and friction, and to the plan of appointing association secretaries as the local advisers and helpers of the district secretaries. The 3 societies and the 4 women's missionary societies were advised to appoint a committee to formulate a plan for combining all their publications in a single monthly and a bulletin, each representing all the denominational missionary interests —this committee to report in 1903. By agreement of the 3 societies a committee of 15 was provided for, to consist of 7 ministers, 5 laymen, and 3 women, to whom all matters respecting the relations between the societies shall be referred, whose duty it shall be to ascertain such facts as whether there be any lack of proper adjustment and proper cooperation as to fields of labor, collecting and other agencies, and methods of work; whether there may be improvement in their mutual relations for more harmonious, effective, and fruitful service; whether changes are needful or desirable in their forms of organization, in their constitutions, by-laws, agencies, and methods of work; and if changes are needed, recommending what they shall be.

Following the recommendations of a conference held in 1901 in connection with the anniversaries at Springfield, Mass., the constitutions of the 3 principal societies were so changed as to make the qualifications for membership in them alike.

Woman's Societies.—The twenty-fifth annual meeting of the Woman's Baptist Home Mission Society was held in St. Paul, Minn., May 19 and 20. The occasion was celebrated as the "silver anniversary" of the society, and the proceedings were marked by the reading of historical papers and addresses, relative to the general organization, the State and local branches, and the several fields of work. The labors in the day were in practice distinctly directed to the women and children, with the purpose of Christianizing and consequently elevating the homes of the people. The agencies it used were house-to-house visits, a weekly child's meetings, Bible bands, women's (or mothers') meetings, parents' conferences, and training classes for workers. The work had been carried
on during the quarter of a century now completed at a total cost of $1,122,664; in addition to which goods and supplies valued at $225,178 had been distributed. The receipts for the year had been $347,733 for the general work and $4,798 for the Alaskan work; but deficiencies were left in the accounts of both branches amounting together to $3,094. The larger portion of this sum was obtained during the meetings, whereby the debt was reduced to $965. The labors of the society were prosecuted among the negroes of the South, among the Indians, among foreign populations, and in Porto Rico and Alaska.

The forty-fourth annual meeting of the Woman's American Baptist Home Mission Society was held in Boston, Mass., May 7 and 8. The receipts for the year had been $347,733 for the general work and $4,798 for the Alaskan work; but deficiencies were left in the accounts of both branches amounting together to $3,094. The larger portion of this sum was obtained during the meetings, whereby the debt was reduced to $965. The labors of the society were prosecuted among the negroes of the South, among the Indians, among foreign populations, and in Porto Rico and Alaska.

The forty-fourth annual meeting of the Woman's Baptist Foreign Missionary Society of the West was held in St. Louis, Mo., May 6 and 7. The receipts for the year had been $42,900 for the general work of the society and $1,700 for the home for missionaries' children. The society had under its care 220 schools, 231 teachers, 6,711 pupils, and 100 Bible women, 2 hospitals, and 2 dispensaries, in which 9,818 patients had been treated, with 387 outside patients. The report of the joint Committee on the Relation of the Missionary Union and its Auxiliary Woman's Societies, recommending the continuance of women's work as now carried on, was approved, and the Woman's Baptist Missionary Societies of California and Oregon were invited to unite organically with this one.

Young People's Union.—The Baptist Young People's Union of America held its eleventh annual meeting in Providence, R. I., July 10 to 13. Mr. H. Clay, of Cincinnati, was chosen president for the year. The report of the Board of Managers showed that all outstanding obligations, including a debt of $20,000, had been paid. There were had had a return in the past year of 10,927 examination papers, and in ten years of 108,180. The net receipts for the year had been $17,682, besides $40,196 in the business department of the Baptist Union. The assets amounted to $33,271.

Southern Baptist Convention.—The Southern Baptist Convention met in its forty-seventh annual session at Asheville, N. C., May 8. The Hon. James P. Eagle, ex-Governor of Arkansas, was chosen president. The report (eleventh) of the Sunday-School Board showed that the total receipts for the year had been $89,345, or $10,904 more than in the preceding year. The reserve fund had increased by $6,000, and stood at $60,000, safely invested. Twelve thousand dollars additional had been set aside to start a building fund, and the house and lot in which the board transacted its business were included in the table of assets. The appropriations for the year amounted $19,893, not including the missionary boxes. By the "Book Endowment Plan" gifts of $500 constitute a fund, bearing the donor's name, to be applied to publishing. The Board of Education had had the issue of new books as fast as it is restored by sales. The list of Sunday-school periodicals had been enlarged. An annual lecture course on Sunday-school work was provided for at the Sunday-School Board in Baltimore, Md. The Home Mission Board had received $49,950 during the year, an increase of $12,045 over the receipts of the previous year, besides special gifts, subject to annuities, of $1,500. The church building and loan department, established about two years previously, had received less than $100 additional to the $4,110 received during the first year of its operation. It had made a number of loans, of from $150 to $400 each, for periods of from three to five years. Work in the mountain regions was done in cooperation with the State mission boards, mainly in the establishment and maintenance of schools, which were mostly in the charge of preachers serving in the county adjacent, and of other teachers. Thirteen schools were maintained, and others would be established as circumstances might allow. In cooperative work among the negroes the board had expended $1,971 in the States of Georgia, Kentucky, Missouri, North Carolina and Virginia, the American Baptist Home Mission Society and the State boards paying the balance. Sixteen missionaries had been employed, who had held 116 institutes and reported 496 baptisms. The board had also cooperated with the National Baptist Convention (colored) in the support of two general missionaries, expending $1,356. Five stations besides Havana, were established in Cuba, with 5 missionaries and 8 teachers. The year's receipts of the Foreign Mission Board had been $173,846, and the board entered the new year with a balance in bank of $13,378. The missions in China, Japan, Africa, Mexico, Italy, and Brazil returned 139 churches, with 171 outstations, 115 missionaries, 38 ordained native preachers, 135 native helpers, 7,521 members, with 1,439 baptisms during the year, and native contributions amounting to $18,386. Two training-schools for young preachers were maintained in China; 1 in Italy, 1 in Mexico, and 2 in Brazil. Publication societies were established at Rio, Brazil, and Canton, China. Twenty of the 25 missionaries ordered during the last year were sent out by the board, 11 were under appointment, and 6 more were under appointment. The Southern Baptist Theological Seminary reported a prosperous year. While other seminaries were complaining of a falling off in the number of students, this institution had gained 12, and now had 243. The report of the Committee on Cooperation, which was unanimously adopted, recommended that associational members to the convention be regarded as messengers to their associations and requested to represent the work of the convention; that a statistical secretary be appointed; and that the secretaries of the State boards and the State boards constitute a committee on cooperation to make suggestions for uplifting the people of the South.

The contributions of the Woman's Missionary Union Auxiliary to the Southern Baptist Convention had been $54,776 in cash and $33,153 in boxes.

Education Society.—The American Baptist Education Society, holding its session for 1902 in connection with the meetings of the Southern Baptist Convention, met at Asheville, N. C., May 8. The report continued in the issue of new books as fast as it is restored by sales. The list of Sunday-school periodicals had been enlarged. An annual lecture course on Sunday-school work was provided for at the Sunday-School Board in Baltimore, Md. The Home Mission Board had received $49,950 during the year, an increase of $12,045 over the receipts of the previous year, besides special gifts, subject to annuities, of $1,500. The church building and loan department, established about two years previously, had received less than $100 additional to the $4,110 received during the first year of its operation. It had made a number of loans, of from $150 to $400 each, for periods of from three to five years. Work in the mountain regions was done in cooperation with the State mission boards, mainly in the establishment and maintenance of schools, which were mostly in the charge of preachers serving in the county adjacent, and of other teachers. Thirteen schools were maintained, and others would be established as circumstances might allow. In cooperative work among the negroes the board had expended $1,971 in the States of Georgia, Kentucky, Missouri, North Carolina and Virginia, the American Baptist Home Mission Society and the State boards paying the balance. Sixteen missionaries had been employed, who had held 116 institutes and reported 496 baptisms. The board had also cooperated with the National Baptist Convention (colored) in the support of two general missionaries, expending $1,356. Five stations besides Havana, were established in Cuba, with 5 missionaries and 8 teachers. The year's receipts of the Foreign Mission Board had been $173,846, and the board entered the new year with a balance in bank of $13,378. The missions in China, Japan, Africa, Mexico, Italy, and Brazil returned 139 churches, with 171 outstations, 115 missionaries, 38 ordained native preachers, 135 native helpers, 7,521 members, with 1,439 baptisms during the year, and native contributions amounting to $18,386. Two training-schools for young preachers were maintained in China; 1 in Italy, 1 in Mexico, and 2 in Brazil. Publication societies were established at Rio, Brazil, and Canton, China. Twenty of the 25 missionaries ordered during the last year were sent out by the board, 11 were under appointment, and 6 more were under appointment. The Southern Baptist Theological Seminary reported a prosperous year. While other seminaries were complaining of a falling off in the number of students, this institution had gained 12, and now had 243. The report of the Committee on Cooperation, which was unanimously adopted, recommended that associational members to the convention be regarded as messengers to their associations and requested to represent the work of the convention; that a statistical secretary be appointed; and that the secretaries of the State boards and the State boards constitute a committee on cooperation to make suggestions for uplifting the people of the South.

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600 in all, condition upon $346,000 more being secured; 11 institutions had successfully competed for $775,000, which represented the sum was supplemented by $213,942 collected by the institutions. Within the past twelve years the society had paid in grants to institutions almost $867,956—a sum which was represented by $2,081,625, making the aggregate increase $3,151,148. A favorable report was made of the work of the Southern Baptist Theological Seminary on the admission of women missionaries as students of the seminary. Two hundred and fifty students had matriculated in the institution, 50 of them being from outside the bounds of the Southern Baptist Convention.

Negro Baptists.—The negro Baptists numbered 500,000 in 1890, and 1,000,000 in 1891; but at the end of 1901 they had increased to 1,500,000, and 1,000,000 was regarded as a safe estimate, after exaggerations were allowed for. They had 15,000 churches and 10,500 ordained ministers, many of the ministers serving several churches. Their numbers in the States where they are most numerous are: In Alabama, 29,000; in Georgia, 25,000; in Texas, 17,893; in North Carolina, 140,205; in South Carolina, 140,107; in Mississippi, 200,118; in Georgia, 221,442; in Virginia, 271,297. During 1901, 75,000 baptisms were reported and estimated among them. Marked intellectual progress had taken place among them during the past forty years. While in 1860 the minister who could read the Bible was an exception, in 1900 the exception was the man who could not read it. In the cities and large towns generally there were able, cultivated ministers, who preached to intelligent congregations meeting in excellent and well-furnished houses of worship, while the Sunday-schools were studying the International lessons; but in the rural regions progress was slow and the conditions were not such as were desirable for the education of their children was seen in the fact that nearly all the schools were aided by the American Baptist Education Society and had an average attendance of 24,998, with 4,472 officers and teachers, and contributions of $4,287 to various missions and $12,567 for school purposes. Of the 247 schools, 10 were mission schools and 2 union schools. The advisability of appointing a superintendent of Sunday-school work was recommended by the convention to the consideration of the boards interested in this subject, and to the committee. The Church Edifice Board, with a permanent fund of $9,500, had received $2,715, and had made loans amounting to $2,385. During its history it had helped 91 churches with loans aggregating $43,000. Four churches had repaid their loans in full during the year. The total disbursements of the Committee on Western Missions (Manitoba, the Northwest, etc.) had been $6,337. Seventy-three men were engaged in work in the missions, which returned 98 churches and 300 preaching stations. Fourteen German colonies were mentioned. The Board of Home Missions had assisted 124 pastors and 50 students, who had been serving 296 churches and preaching stations. The churches and given $10,000 for missions, returning, according to the representations of the report, 44 per cent. on an annual invest-
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ment in them of $23,044. Eight new churches had been or were being erected, 5 had declared for self-support, 22 had reduced their applications for aid, 12 new churches had been organized during the year, and 750 baptisms were returned. The total gross receipts had been $27,900, and the expenditures $30,382. The report on the state of religion showed that in all the churches 18 ministers had been ordained during the year, 2,201 persons had been added to the membership, and that the present number of members was 43,940, showing a net gain of 689 members. Throughout the denomination there had been 1 baptism to every 17 members. The churches had expended $505,805, of which $313,845 were on work at home and $177,020 on work abroad; showing an average of $7.22 per member on work at home and $1.76 on work abroad, or a total average of $9.98 per member; besides which special contributions had been made to extraordinary objects.

The main strength of the convention is in Ontario and the Western provinces. In Lower Canada the Baptists have 31 English-speaking churches, with 2,100 members. Of the 19 churches comprising the Eastern Association, 11 are associated with the Home Missions Board. There are 10 French-speaking churches, with about 500 members, making the whole number of members in the province of Quebec about 2,000.

Constitution of the Maritime Provinces.—The annual Baptist Convention of the Maritime Provinces met in Yarmouth, Nova Scotia, Aug. 23-25, the meeting being preceded by a breakfast on the preceding day. The Rev. Dr. E. M. Saunders was chosen president of the convention. A communication was received from the Free Baptist General Conference declining to consider favorably the proposals of the Baptist convention to cooperate in the work of education and of foreign missions. The Foreign Mission Board reported that its total receipts had been $18,370, of which $4,862 had come from the churches, $8,575 from the Ladies’ Aid Societies, and the rest from invested funds and other sources. The accounts showed a deficit of $1,379 for the year, making an accumulated deficit of $5,027. Additional contributions of $1,800 were made to the foreign mission fund during the session of the convention, making it possible to show a reduction of the deficit. The report of home missions showed but little if any advance. Favorable reports were made by the university and its associated institutions, particularly by the Ladies’ Seminary, the faculty of which was to be enlarged. A decline was noticed in the number of students preparing for the ministry in attendance at the university. Additional contributions were reported to the fund of $600, upon the completion of which a gift of $15,000 was promised to Acadia College by Mr. John D. Rockefeller. The general receipts for all purposes showed an increase for the year of $2,000 in Nova Scotia, but a decrease of more than $1,000 in New Brunswick and Prince Edward Island. More than half of the contemplated Centenary fund of $60,000 had been completed. A commission of 6 brethren, 2 in each province, was appointed to have charge of the raising of funds for all the denominational objects. Estimating for non-reporting churches, the number of members was returned as more than 51,000, and 1,598 baptisms were reported.

Baptists in Great Britain.—From the British Baptist Handbook for 1905 it appears that the gain in membership of the British Baptist churches for 1901 was 7,390, compared with about 12,000 the year before, making the present total membership 372,000. The gain in Sunday-school attendance was 4,000, giving a total of 532,219 pupils. The triennial statistics of Baptists in the world showed 4,045,089 Baptists in church-members in all, making a gain in three years of more than 300,000, and of 748,000 in the last six years. Of this total gain in the latter period, 524,000 were in the United States, 41,000 in Great Britain and Ireland, and 183,000 in the rest of the world. There were about 260,000 Baptist church-members in the British colonies. Of these, 113,826 were in India, or about one-seventh more than in Canada.

The Baptist Union of Great Britain and Ireland met in its annual spring session April 27. The president for the year, the Rev. J. R. Wood, opened the meetings with an address in which he spoke of the place and influence of the minister and the danger to be apprehended from the presence of the commercial spirit in the Church. The report of the council referred to an increase of 7,230 members and 38 pastors in charge as having taken place during the year. The receipts as figured in the cash summary had amounted to £29,012, or £4,294 below the account of the Twentieth Century fund. The expenditure had been £12,300. An increase of £3,425 appeared in the Home Mission fund, by which 109 churches in 21 associations, and 27 mission stations, with 79 mission pastors in all, had been aided. The aided churches had 5,550 communicants, with an average attendance of 9,095 persons, and 8,943 children being in the Sunday schools. The responses to appeals in behalf of the Annuity fund had been generous, and all annuities would be paid in full. The sum total of cash contributed and promises made to the Twentieth Century fund (intended to be £250,000) to the day of the meeting of the assembly had been £228,154, while £6,000 more had been promised contingent upon the whole amount being raised.

The capital of the Baptist Building fund stood at £54,521. During the year 41 churches had received grants, varying from £40 to £500 in each case, to the extent of £250,040. The Long-term fund had amounted to £12,390. Forty-four churches were waiting for loans to an aggregate amount of £15,220, or more than the probable income for the next fifteen months.

A resolution expressing the education bill protested against the measure as one which would lower the standard of national efficiency and perpetuate and extend the injustice of payment by private managers of the teachers of public schools, whose stipends it was proposed to pay entirely out of the public funds. The bill, in its main provision, was characterized as a further endorsement of the Established Church, and the union would offer it a determined and unceasing opposition. Another resolution called on all friends of Sunday closing of public houses to press the demand for a comprehensive measure which would extend the blessing to the whole of England. A proposition for the establishment of a Baptist Union Sustentation fund, drawn up by the late Mr. William Chivers, was submitted to the assembly, and was referred to the finance committee for consideration. The plan contemplates the inclusion in the fund of the existing augmentation and home mission funds of the union; and the object of the fund is declared to be "to secure a minimum salary to all duly accredited ministers whose churches are supported with the fund, and to make provision for home evangelization in new or needy districts." The last business of the meeting was the announce-
BAPTISTS.

The completion of the Twentieth Century Fund of £250,000, the final subscriptions having come in since the opening of the assembly. The annual meetings of the Baptist Missionary Society were held in London, April 29 and May 1. The report represented that the purpose determined upon at the centenary meeting of the society several years before, to raise the annual income to £100,000, had never been carried out, but they had been forced to face each year a deficit of £10,000, which had to be met by special subscriptions. The deficit this year was £9,909, toward the removal of which subscriptions were taken during the meeting, whereby it was reduced to £3,700.

The general receipts of the Zenana Mission had amounted to £11,855, and the expenditures to £10,705. The mission staff numbered 63 missionaries in India and 6 in China. In India, visits were paid regularly to about 3,000 zenanas, 1,500 zenana girls were under instruction, and 97 schools were taught, with nearly 4,000 pupils. The missionaries returning to China had been warmly welcomed back by the Chinese Christian women.

The Bible Translation Society returned a total income of £1,564, and a balance in hand of £101 after meeting all expenses. Progress was reported in the translation of the four versions of the Scriptures in Bengali, Oriya, Cingalese, and Dualla and other languages of the Congo.

The autumnal assembly of the union was held in Birmingham, Oct. 6-9, Tuesday, Oct. 7, being given to the meeting of the Baptist Missionary Society. At this meeting a farewell was given to 10 missionaries returning to their fields and 4 new missionaries going out; and a resolution was adopted pledging cooperation with the visitation of the churches which had been instituted for the purpose of securing sufficient funds to maintain an equilibrium between income and expenditure, and of obtaining further support to meet the new and promising openings that were presenting themselves and the increasing demands for reinforcements from fields already occupied.

The address of the President of the Union, the Rev. J. R. Wood, was on The Church and the Nation. The Twentieth Century Fund of £250,000 (which had all been subscribed) reported that the amount of £204,000 in cash had been received for it—£173,000 of the sum from England. A considerable additional amount was expected from Wales, and some from England. The education bill was the subject of an active discussion, and resolutions were unanimously adopted declaring that the members of the assembly maintained the objections against the bill offered in the spring meeting of the union for the following reasons:

1. That the bill seeks to confirm and to perpetuate the control of elementary schools.

2. That it provides no effective remedy for the grievous wrong which is done to non-conformists and other parents in 7,474 parishes where the only public elementary schools are those whose avowed object is the training of the scholars in the principles of the Established Church among themselves.

3. That in the case of 11,777 Church of England and 1,045 Roman Catholic schools, while the entire cost of teaching staff and furniture and apparatus would be paid by the public purse, denominational managers would appoint and dismiss teachers and prescribe any form of religious instruction which they pleased; and

4. That the bill violates the fundamental principle of the Constitution that taxation shall be accompanied by popular control. They regard the bill as the product of an alliance between the Government and the High Anglican party and the Roman Catholic hierarchy, having for its main purpose the clericalization of education at the cost of the just rights of all Free Church citizens and to the injury of Protestantism and non-conformity; and since this attempt occurs at the end of a series of sectarian aggressions in our national educational legislation, and as a fresh and unprovoked disturbance of the present arrangement, they are resolved to use their political influence to secure a system of national education in harmony with the principles of justice and efficiency, and in which every public elementary school shall be sectarian and placed under the management of a board of which women may be members, and no citizen, teacher, or scholar be placed at any legal disadvantage on account of religious opinion.

They now declare their solemn determination not to submit to this measure if it becomes law and to render it unworkable by every lawful means in their power. They also declare that very many of the opponents of the bill have resolved to suffer distress of goods as a protest against this obnoxious measure, rather than pay the rates for the support of the Mid-Town Church and the growing alienation of the working classes from places of worship, The Problem of Suburban Work, The Missionary Dispensary, The Rural Baptist Church, Lay Preaching Power; and a public evening meeting was devoted to the Exposition of Free Church Principles.

Baptist Jubilee in New Zealand.—Jubilee celebrations of the foundings of the first Baptist churches in the colony were held in New Zealand early in the year. The Baptist Union was not formed till 1882. The demands for reinforcements from fields already occupied. The address of the President of the Union, the Rev. J. R. Wood, was on The Church and the Nation. The Twentieth Century Fund of £250,000 (which had all been subscribed) reported that the amount of £204,000 in cash had been received for it—£173,000 of the sum from England. A considerable additional amount was expected from Wales, and some from England. The education bill was the subject of an active discussion, and resolutions were unanimously adopted declaring that the members of the assembly maintained the objections against the bill offered in the spring meeting of the union for the following reasons:

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BELGIUM.

The Belgian constitution, providing for a representative, hereditary monarchy in western Europe. The legislative power is vested in the Senate and the Chamber of Representatives. Senators are elected for eight years, one-third by provincial councils and two-thirds by the direct vote of the people. Half the Senators retire every four years. The Chamber contains 132 members, one to 40,000 inhabitants, elected for four years. Every male citizen twenty-five years of age possessing full civil rights and domiciled for one year in his commune has a vote. If he is thirty-five years of age, married or a widower with children, and pays 5 francs in direct taxes, he is entitled to 2 votes. If he possesses real property of the value of 2,000 francs or investments in the public funds yielding 100 francs a year, he may cast 3 votes. If he is a graduate of an institution of higher education or holds or has held public office or practices a profession implying the possession of higher education he has 2 votes; and if, in addition, he is the head of a household or an owner of property or public stocks, he has 3 votes. There were 1,452,235 individual electors in 1900 who cast 2,532,960 ballots. Representative candidates polled 1,277,720 who cast 1,994,153 for Senators. The number of Representatives is determined after each census, and the Senate consists of half their number.
The reigning sovereign is Leopold II, born April 9, 1835, who, on Dec. 10, 1865, succeeded his father, Leopold I, a prince of Saxe-Coburg, who was elected King of the Belgians by a National Congress on June 4, 1831, after the secession on Oct. 4, 1830, of Belgium from the Netherlands. A treaty was signed on Nov. 15, 1831, by Austria, Great Britain, Germany, Russia, guaranteeing the perpetual neutrality and inviolability of Belgium. The heir to the throne is Princess Albert, born March 24, 1837, the king's only brother, who has one son living, Prince Albert, born April 8, 1875.

The Council of Ministers appointed on Aug. 5, 1899, was composed as follows: President of the Council and Minister of Finance and of Public Works, Count de Smet de Naeyer; Minister of Foreign Affairs, Baron P. de Faveureux; Minister of Justice, M. van den Heuvel; Minister of Agriculture, Baron van den Bruggen; Minister of the Interior and of Public Instruction, M. de Trooz; Minister of War, Major-General A. Cousebant d'Al kemade; Minister of Railroads, Posts, and Telegraphs, M. Lieber; Minister of Industry and Labor, Baron Surmont de Volezborg, who resigned on Aug. 20 and was succeeded by Gustave Francotte.

Area and Population.—The area of Belgium is 11,373 square miles. The population in 1902 was 6,893,000. The census of that date makes it 6,895,311, or 590 to the square mile, an increase of 454,960 in ten years. The number of marriages in 1899 was 55,765; of births, 194,268; of deaths, 126,903; excess of births, 67,305. The number of divorces in 1899 was 563. The number of immigrants in 1900 was 29,231, and of emigrants 25,064; nat immigration, 4,107. The population of the principal towns on Dec. 31, 1900, was as follows: Brussels, including suburbs, 561,782; Antwerp, 265,000; Liège, 173,708; Ghent, 160,949; Mechlin, 56,013; Verviers, 52,503.

Finance.—The ordinary revenue of the Government in 1899 amounted to 483,372,000 francs, and the ordinary expenditure to 570,442,000 francs. In 1900 the ordinary revenue was 491,904,000 francs and the ordinary expenditure 580,555,000 francs. The revenue was 480,040,050 francs, of which 26,438,000 francs are derived from property taxes, 21,629,000 francs from personal taxes, 9,000,000 francs from trade duties, 1,500,000 francs from customs, 43,355,806 francs from customs, 68,755,040 francs from excise, 2,902,000 francs from various taxes, 30,200,000 francs from registration and other fees, 19,720,000 francs from succession duties, 8,000,000 francs from stamp duties, 913,000 francs from fines, 2,105,000 francs from rivers and canals, 204,370,000 francs from railroads, 10,000,000 francs from telegraphs, 15,910,530 francs from posts, 1,510,000 francs from steamboats, 2,955,000 francs from domains and forests, 14,999,500 francs from profits of the Bank of Belgium, and other chartered enterprises, 6,168,039 francs from railways, 2,955,000 francs from domains and forests, 14,999,500 francs from profits of the Bank of Belgium, and other chartered enterprises, 4,477,074 francs from repayments. The total expenditure for 1902 was estimated at 488,344,403 francs, of which 133,781,107 francs were for internal administration, and the cost of the public debt, 6,115,276 francs for the civil list and dotations, 20,791,400 francs for the Ministry of Justice, 3,283,988 francs for the Ministry of Foreign Affairs, 30,160,151 francs for the interior, and 12,412,756 francs for the Ministry of Public Instruction, 14,488,800 francs for the Ministry of Agriculture, 16,484,800 francs for the Ministry of Industry and Labor, 160,377,494 francs for the treasury, 1,091,963 francs for telegraphs, and 55,205,371 francs for the Ministry of War, 34,498,820 francs for the Ministry of Finance and of Public Works, 7,334,210 francs for the gendarmerie, and 2,076,000 francs for revenue stamps.

The national debt on June 30, 1901, amounted to 2,650,988,150 francs, of which 2,428,111,982 francs are loans raised at 3 per cent. interest, 2,895,536 francs represent the capitalized value of annuities, and 216,039,632 francs are the share of Belgium in the old debt of the United Netherlands, a perpetual debt on which 2½ per cent. interest is paid. The loans were raised almost entirely for the building of railroads and other useful and remunerative public works. They are redeemable by means of a sinking fund. The revenue of the provincial administrations in 1899 was 18,819,013 francs, and expenditures 15,938,019 francs; provincial debts, 32,207,082 francs. The ordinary revenue of communes amounted to 118,742,538 francs, and expenditure to 117,144,576 francs; the extraordinary revenue to 59,278,223 francs, and expenditure to 62,172,216 francs.

The Army.—The standing army is raised partly by conscription, to which every Belgian is liable at the age of twenty, and partly by voluntary enlistment. The strength of the army on the peace footing in 1902 was 287 staff and superior officers, 1,921 officers, and 27,708 men in the infantry, 370 officers and 5,770 men in the cavalry, 653 officers and 8,682 men in the artillery, 152 officers and 1,703 men in the engineers, 75 officers and 999 men in the administrative departments, 210 surgeons, 41 veterinarians, and 71 officers and 2,903 men in the gendarmerie; total, 3,743 officers and 47,809 men, with 10,879 horses. The infantry uses the rifle of the model of 1899, with 7.65 millimeters caliber, holding 5 cartridges. The field-artillery have 204 Krupp breech-loading steel guns of 47 centimeters bore in the mounted and 7.5 in the horse batteries. Conscripts are allowed to furnish substitutes, which the Ministry of War provides on the payment of a maximum price of 1,600 francs. The nominal term of service is eight years in the active army and five years in the reserve. Unlimited leave is given after service with the colors for twenty-eight to thirty-six months. The budget estimate of 1901 was for the defense of 45,000 men, with 28,600 horses. It is proposed to increase the strength to 180,000 men by shortening the term of service.

Commerce and Production.—Of the total area of Belgium 65.06 per cent. is cultivated, 17.70 per cent. is forest, and 17.24 per cent. is wasteland, marsh, river, road, and building and mineral land. Less than 18 per cent. of the people are dependent on agriculture. The production of wheat from 180,377 hectares in 1899 was 3,816,777 hectoliters; of barley from 40,242 hectares, 1,402,571 hectoliters; of oats from 248,933 hectares, 10,101,950 hectoliters; of rye from 283,375 hectares, 6,543,152 hectoliters; of potatoes from 184,890 hectares, 33,246,046 hectoliters; of sugar-beets from 54,090 hectares, 18,065,538 quintals; of other beets from 40,561 hectares, 17,383,656 quintals; of tobacco from 2,148 hectares, 34,067 quintals. The quantity of hops gathered was 63,991 quintals. The annual value of forest products is estimated at 22,000,000 francs. The value of quarry products in 1899 was 55,448,745 francs. The quantity of iron ore mined in 1899 was 201,445 tons, valued at 1,196,000 francs; the quantity imported from Luxembourg and other countries was 2,621,336 tons. There were 125,235 persons employed in the coal-mines, which produced 22,072,000 tons. The value of coal was 5,091,615 francs. The production of pig iron was 1,024,574 tons, valued at 74,404,000 francs; of manufactur-
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sailing vessels, of 741 tons, and 69 steamers, of 112,518 tons. Of the vessels entered and cleared in 1900 Belgium cleared, of 1,380,390 tons, and 1,908 cleared, of 1,384,776 tons; Great Britain, 4,042 entered, of 3,804,974 tons, and 4,019 cleared, of 3,758,418 tons; Germany, 1,037 entered, of 1,679,067 tons, and 1,032 cleared, of 1,676,044 tons; Norway, 530 entered, of 310,102 tons, and 538 cleared, of 330,404 tons; Sweden, 237 entered, of 193,301 tons, and 243 cleared, of 203,141 tons; Denmark, 237 entered, of 235,310 tons, and 242 cleared, of 236,968 tons; Holland, 203 entered, of 203,777 tons, and 199 cleared, of 196,121 tons; Japan, 48 entered, of 197,058 tons, and 49 cleared, of 201,034 tons; France, 148 entered, of 148,730 tons, and 149 cleared, of 149,232 tons; Russia, 66 entered, of 67,113 tons, and 67 cleared, of 66,540 tons.

Railroads, Posts, and Telegraphs.—The total length of railroads in operation on Jan. 1, 1901, was 2,833 miles, of which 2,503 miles were operated by the Government and 330 miles by companies. The number of passengers carried during 1900 was 123,700,046 on the state and 15,428,041 on the companies' railroads; gross earnings, 209,184,311 francs on the state and 15,428,041 francs on the companies' railroads; gross expenses, 140,428,155 francs for the state and 11,828,518 francs for the companies' railroads. The state railroads cost 1,963,823,697 francs to build. Since the first railroad was constructed in 1834 the Government has received in net profits above all expenses for operation, maintenance, and interest on borrowed capital amounting for the whole period to 115,528,477 francs.

The post-office in 1900 carried 137,617,928 private letters, 25,355,406 official letters, 65,384,343 postal cards, 125,648,551 circulars, etc., and 134,724,720 newspapers; receipts were 25,248,483 francs, and expenses 13,498,196 francs.

The telegraphs of Belgium had on Jan. 1, 1901, a total length of 3,975 miles, with 24,940 miles of wire. The total number of dispatches in 1900 was 14,411,487; receipts were 9,309,440 francs; expenses, 5,896,524 francs. There were 37,285 miles of telephone wires and 14,920 stations. The number of conversations was 39,284,657.

Legislation.—The Chambers in the early part of the session of 1902 agreed to the Government's military reform bill, which reduces the term of service and increases the effective strength of the army 20 per cent. by an extension of the volunteer system. The antigambling bill, which suppresses the public gaming-houses in Ostend and Spa and all gambling clubs in Belgium, was finally passed by the Chamber of Representatives, March 22. A workmen's accident bill divides the risk between employer and employee. In case of temporary or permanent incapacity the workman receives half the amount of his average earnings, and this is paid to his family for a certain number of years if he is killed. Contributory negligence on the part of the injured workman does not absolve the employer from his liability for compensation. Employers are bound to insure themselves in a company approved by the Government or to deposit a sufficient insurance fund in the state savings-bank. A commission is appointed for the settlement of claims, which includes representatives of both employers and working men.

At meetings held at the People's Palace in Brussels and in all the industrial centers of the provinces the Socialists of Belgium decided to start a new movement for the extension of female suffrage. A manifestation in front of the Parliament buildings announced for Mardi gras was
frustrated by a strong cordon of troops and police who kept the demonstrating bands out of the near-by parks and squares. The number of qualified voters was increased from 135,000 to 1,400,000 with over 2,000,000 votes. This extension of the franchise admitted Socialists to the Chamber, but was unsatisfactory to the Liberals, who replaced it through a system of proportional representation in 1899. Until this was adopted the scrutin de liste frequently left the Liberals without representation in districts where they almost had a majority. The Belgian system of proportional representation is worked out by dividing the total vote for each list by the number of members to be elected. The quotient is the electoral divisor which regulates the division of seats among the candidates of the different parties by the number of times it is contained in the total number of votes cast for each party ticket. The result for the whole country in 1900 was to give still to the Clericals an unduly large proportionate representation. In a total ballot of 2,073,003 the Clericals 1,040,000 votes, the Liberals and Progressists 535,000, the Socialists over 500,000. In the allotment of seats the Clericals obtained 85, the Liberals and Radicals 35, the Socialists 33, the Independents 1, giving the Catholics a majority of 18 over the united Opposition parties, who polled a popular vote about equal to theirs in the true proportionate representation. Hence the old Liberals as well as the Radicals entered into coalition with the Socialists, willing to sacrifice, if necessary, to political expediency Jansen’s old saying that in 1830 the age of thirty-five or forty married men to vote twice, and to accept the Socialist program of one man one vote, while the Socialists on their side agreed to adopt the favorite Liberal principle of proportional representation. The Socialists and Liberals proposed to lower the voting age to twenty-one and to alter the composition of the Senate. The Catholics proposed to couple woman suffrage with the Socialist plan of an equal franchise for all voters. This innovation was resisted by the Liberals, who anticipated that the influence the clergy can exert over the female mind, especially in the Catholic and middle classes, would secure to the Clericals a permanent majority. The Government bill increasing the number of Deputies from 102 to 186 and the number of Senators from 76 to 83 was passed by the Chamber on April 12 without opposition. The arrest of M. Vandervelde, the Socialist leader, on April 10 led to a serious riot in Brussels. The troops charged with fixed bayonets and fixed volleys, while the rioters used revolvers and glass bombs filled with corrosive fluids. Disturbances occurred in other towns. This outbreak caused a breach between the Socialists and the Liberals, who wished to withdraw from the alliance and urged the Government to dissolve Parliament when the Socialists decreed a general strike. The strike began in the cities and spread to all the trades. In three days more than 200,000 men quit work. On April 17 Count de Smet de Nayer gave his decision not to bring forward equal suffrage because the majority of the people did not want it, because there was no chance of a two-thirds majority in the Constituent Assembly in its favor, and above all because the Government would not yield to mob rule and allow the proceedings of Parliament to be dictated from the street or the action of the rioters to be encouraged by strikes, intimidation, and violence. By 84 votes to 64 the Chamber on April 18 decided not to admit the question of revision to consideration. The un-
Belgium.

The more compromising negative of the Prime Minister made the business men of the country, whose affairs were at a standstill, as indignant at the Clericals as against the Socialists. The latter appealed to the King and announced that they would bring the question of revision before the Chamber until it should be considered. On April 19 at Louvain a mob drove the militia back into their quarters, where they loaded their rifles, and when again pressed hard they fired and killed and wounded a number of people. The people fired revolvers at another company, which replied with a volley, killing 7 and wounding 18. The strike was declared at an end by the council of the Labor party, and on April 21 the working men generally resumed their occupations. The Chamber voted the budget on April 25. The sum of 46,000,000 francs was voted for the armament. The Chamber imposed a tax of 1 franc on newspapers, and 5 francs on lotteries, and 2 francs, 50 centimes on the sale of opium and rum. The Chamber voted the budget on May 27. There were 50 retiring members to be replaced, and 14 additional members were elected to bring up the number of Deputies to 249. A new Chamber was created by the act enlarging the Chamber to meet the increase in the electorate. In conformity with the same act 7 new Senators were elected. The new Chamber consisted of 137 Liberals, 32 Liberals, and 2 Christian Democrats, increasing the Clerical majority over the united Opposition from 20 to 24. Of the newly created seats 8 went to Christian Socialists, 2 to Liberals, and 1 to a Christian Democrat. The new seats in the Senate were divided between 4 Clericals, 2 Liberals, and 2 Socialists.

The Sugar Convention. — Several international conferences have been held with the object of bringing about a mutual agreement for the regulation or abolition of the bounties given by Continental governments to protect the production and encourage the export of beet-sugar. These bounties are accomplished by high revenue-producing excise duties and a surcharge on imports sufficient to shut out foreign sugar from the producing countries. The popular view is that these duties serve two purposes: first, to make sugar a luxury in countries where the sugar is grown, twice as dear or more in France, Germany, or Austria as it is in England, which spurs the dimes d'importation or consumption. England used to import and refine cane-sugar grown mostly in the West Indies. When Germany, France, Austria, and Belgium began to give bounties England could get sugar from the Continent for less than the actual cost of production. The importation of cane-sugar ceased altogether, and the British refineries went out of business. On the other hand, the manufacture of British jams, confectionery, and biscuits, cheated by the low price of sugar, grew to enormous proportions and the demand for articles was expended to all parts of the earth. Meanwhile Jamaica and other British West India islands, British Guiana, Mauritius, and other colonies which formerly supplied Great Britain with raw sugar languished and declined and the capital invested in sugar plantations was to a great extent lost or withdrawn. The poverty and distress in the island colonies and the falling off of the colonial revenue by a stage at last that the British Government granted large sums in aid. On the recommendation of a commission experimental stations were established in England, Belgium, Spain, Italy, the Netherlands, and Russia signed the convention. France adhered to it in principle and reserved the right of signing later. Avoiding repercussions by selection of a higher saccharine content, as has been done with the sugar-beet, and public aid was given to encourage more scientific, economic, and thorough methods of extracting the sugar from the cane, the protection of modern machinery. The colonies called upon the Imperial Government to impose countervailing duties upon bounty-fed sugar, as the United States Government has done for the protection of American sugar-growers. In the sugar-producing countries of Europe the bounties were a heavy fiscal burden which tended constantly to increase, because France or Germany or Austria at the first appearance of foreign competition in sugar immediately increased the bounty or raised the duty, which further reduced domestic consumption, and any change made by one country was undone by the others. All these countries were competing for the English market, which was more valuable to them than all the other foreign markets together. Germany, the greatest sugar-producing country in the world, sold more sugar to England than the German people themselves consumed. Of the third of the sugar crop went to Great Britain, and a like proportion of the Austrian sugar, which found another good market in British India. Just as in the Continental nations, as in the United States, as in all others, the sugar brought powerful pressure on their governments to bring about an increase in the bounties and protective duties and by all means to prevent the destruction of the sugar interests of England and Scotland who used sugar became a strong and united interest fighting against the imposition of countervailing duties, supported by the general public, to prevent any reduction of cheap sugar. To raise the price of this necessity of life by taxation was represented as a violation of the principle of free trade, though the friends of the colonists argued that duties equivalent to the bounties were necessary to secure free trade to the cane-growers. The manufacturing industries using beet-sugar, which were in Great Britain and were influential in Parliament and in the press, had grown into a bigger business than the production of cane-sugar in British colonies. The popular view was that, if the Continental governments chose to make a present of their production free to the British public by granting bonuses to their sugar-producers to enable the latter to sell sugar so much cheaper in the English market, the British public would not think it foolish to accept this benefit granted by the cost of foreign taxpayers. The impoverishment of the colonists, unable longer to pay the expenses of the colonial administration, the death of sugar and reducing consumption in the beet-growing countries, the overproduction of sugar and glutting of the foreign markets, and the embarrassing charge of the bounties were, however, growing evils that had at some time to be faced and could not at any time be ignored by publicists and statesmen. The first diplomatic conference convoked to deal with these conditions was held in London in 1888. The powers invited by Great Britain to meet to consider the abolition of the bounties signed a convention on Aug. 30, 1888, in which they agreed in principle to the total suppression of open or disguised bounties on the exportation of sugar. They agreed to exclude from their respective territories any sugar coming from countries which continued to pay bounties on the manufacture of sugar. England, Belgium, Spain, Italy, the Netherlands, and Russia signed the convention. France adhered to it in principle and reserved the right of signing later. Avoiding repercussions by selection of a higher saccharine content, as has been done with the sugar-beet, and public
definite adhesion of Austria and France was never secured, and the system of bounties and prohibitive duties flourished more rankly than before. Ten years later the Belgian Government, at the instance of Germany and Austria and with the encouragement of Great Britain, invited the same powers to a new conference. The German and Austrian governments were willing to suppress bounties at once, which was desired by Great Britain. The Belgian and Dutch representatives proposed gradual abolition. France reserved the right to continue a system of indirect bounties, and Russia declined to discuss its system of drawbacks for exports, denying that it was of the nature of a bounty, while the Austro-Hungarian delegate pronounced it equivalent to a bounty on exportation. The conference came to an end without agreement, with the understanding that the Belgian Government should carry on a diplomatic correspondence with the other governments, and if the basis of an understanding could be reached through diplomatic channels the conference could be reconvened later. Sugar production had doubled since the earlier convention. In December, 1901, the representatives of the English manufacturers met in conference once more at Brussels. The situation had changed, chiefly that England no longer viewed the bounty question with platonic wishes for the abolition of bounties, but indifference as to the time when they should be abolished, since the British people reaped the material profit so long as they were continued. The necessities of the sugar colonies had reached the stage when the British Parliament had to come to their aid with substantial grants to offset the bounties. Reciprocity agreements had been made with the United States which afforded some relief, but this was likely to be temporary. The needs of the British treasury made a revenue from sugar imperative, and the tax could not be framed in utter disregard to these colonies. India was already permitted to impose a countervailing duty on bounty-fed sugar. The effect on the sugar trade of Austria would be disastrous. Overproduction caused a crisis in Germany and other countries. While the beet-growers were losing money the refining trust, or cartel, in Germany continued to make large profits. Germany is the greatest sugar country in the world. The production in 1901 was 2,500,000,000 kilograms, of which 700,000,000 kilograms were consumed in Germany, 750,000,000 were exported to Great Britain, and 850,000,000 went to other countries. Great Britain also has taken about a third of the Austrian output, and only a third is consumed at home. Germany has given away 29,000,000 marks yearly in bounties, which did not save the growers and manufacturers of raw sugar from a serious crisis, although the cartel made a profit of 90,000,000 marks in the first year after its organization in June, 1900. By agreement between the refiners and the manufacturers of raw sugar, the latter received 53,000,000 marks, but this did not counterbalance the loss resulting from the reduction of the price of raw sugar from 205 to 155 marks a ton. On the other hand, the 33 refiners were able to divide their share as an extraordinary profit. A direct bounty on the exportation of sugar was given in Germany and Austria-Hungary, and since 1897 in France. In Belgium and in Russia indirect bribes to suppress the export of sugar. The excise tax duty, which limits home consumption in all European countries which produce sugar, was 20 marks per 100 kilograms in Germany and equally excessive in other countries. To bounty consumers, owing to the bounty system, had to pay 66 francs per 100 kilograms for an article normally worth 30 francs. In addition to the excise duty an import duty of 20 marks per 100 kilograms was charged in Germany and one of 22 crowns in Austria-Hungary. In France the surtax had been reduced to 10 francs and in Belgium to 5 francs. The cartel system was developed first in Austria and copied in Germany. It had the effect of increasing production, and at the same time further limiting home consumption. While fixing prices at a higher figure at home, manufacturers were obliged to lower them abroad beyond all precedent, and still could not find a market for the surplus stocks, which were never so large in Germany and in Austria. In December, 1901, the representatives of the powers met once in a conference at Brussels. The British as well as the German government had endeavored to find a basis for negotiations in the preliminary correspondence, and the bounty-paying governments had to face the alternative of countervailing duties that would eventually restore the import duties on bounties unless they voluntarily gave up the payment of bounties and reduced the prohibitory surtax on imports. In any case they had to look for a substitute for the bounty. The manufacturing establishments, is 27 kilograms per head of population. In the United States it is 29 kilograms. In Germany the consumption per capita is 13.5 kilograms, in Austria only 8.4 kilograms. The Agrarians in Germany made a mien as if they would defeat the ratification of the convention and talked of a tariff war with England. In the end the treaty was ratified and it was arranged to fix the excise duty at 14 marks, instead of 20 marks, which with the reduction of the import duty of 40 to 18.50 marks reduces the total tariff from 40 to 18.50 marks. In France it was lowered from 64 to 30 francs. The sugar convention was signed at Brussels on March 5, 1903. The producing countries agreed to suppress from Sept. 1, 1903, all direct and indirect bounties for the benefit of the production or exportation of sugar or of sweetmeats, chocolates, biscuits, and condensed milk, or other articles containing a notable proportion of sugar; also to limit the surtax on imports to a maximum of 6 francs per 100 kilograms; and to impose a special duty on imports from countries which continue to grant bounties either for production or export, this duty to be at least equal to the amount of bounty given. Bounty-led sugars may even be prohibited by any of the contracting parties, but the sugars imported from any of the contracting countries or from colonies belonging to them which do not give bounties and submit to the obligations of the convention must be admitted at the lowest import rates, and no discrimination shall be made between cane and beet sugar. Spain, Italy, and Sweden are freed from the obligation to give no bounties on production so long as they do not export sugar, and from the limitation of the surtax and the obligation to levy a countervailing duty. Bounties include those on production, total or partial exemptions from taxation granted for a part of the manufactured product, profits derived from surplusage
of output or from the exaggeration of the drawback, and advantages derived from any surtax in any sugar is limited to the same extent, and is therefore fixed by the surtax treaty, which are 6 francs for refined and 3 francs for other sugars. Revenue officers must supervise factories and refineries in each country. A permanent international commission of surveillance will be established in Brussels, which will exercise a general control, settle any litigious questions that may arise, and decide as to the admission of sugars that have not taken part in the conference. The convention was concluded for five years, to be continued thereafter by tacit agreement from year to year, any power having the right to withdraw by giving notice before Oct. 31. In case such notice is given by any of the contracting parties the Belgian Government will convocate within three months a new conference to decide on the measures to be taken.

Great Britain made a special declaration that during the continuance of the convention no direct or indirect advantage would be given to the importation of colonial sugars into the United Kingdom. The Netherlands made the same engagement in respect to the Dutch colonies. Both Great Britain and the Netherlands agreed to submit to the conference any questions of a political nature and invite their adhesion. The ratifications were to be exchanged before Feb. 1, 1903.

France objected to the total abolition of bounties, wishing to retain an annual bounty of 4.50 francs in order to balance the reduction in the duty. Germany, supported by Austria-Hungary, resisted the reduction of the surtax to 5 francs, which had been proposed by Belgium and France. Germany also strove hard to have the date of the going into force of the convention postponed for one year longer. A proposal emanated from Great Britain to have the cartels suppressed by law, but it was withdrawn. The persons associated in the cartels in Germany and Austria and all others interested in growing beets or manufacturing sugar opposed vigorously all the features of the convention and met in conference at Berlin to discuss ways of defeating it. Opposition was also everywhere in Britain, and the parts of the cartels were suppressed by law. Rumoullia, which has hitherto imposed an import duty of 51 francs, desired to be placed in the category of the exempt non-erecting countries but the conference will adopt the duty of 6 francs. The United States was not represented at the conference, nor were any of the countries producing raw sugar, neither Cuba nor the British or Dutch colonies except indirectly by their home governments, which represent them diplomatically and have undertaken to influence them to sign the convention. Russia declined to take part in the conference. The Russian Government asserts that it does not promote the export of sugar, either by direct or by indirect bounties. It regulates the amount sold in the home market in order to prevent overproduction and to lessen the cost of production, and thereby increase consumption in Russia. The Ministry of Finance fixes each year the amount of sugar to be placed on the home market after payment of the ordinary excise duty of 1.75 ruble per pound, and this amount is apportioned among the various producers. Each producing country is bound not to go below the quantity fixed. Any producer wishing to sell more must pay an extra excise duty of 3.30 rubles per pound. He may, however, export sugar above the limit, provided he pays an extra duty of 4.50 rubles per pound. The Russian Government contended that it gives no sugar bounty, and therefore under the most-favored-nation clause other countries are precluded from imposing countervailing duties on Russian sugar; that it would be a breach of existing commercial treaties even if the Russian system of regulating the home market could legitimately be regarded as an indirect bounty. In a note to the governments which took part in the Brussels conference the Russian Minister of Finance said that if it could be proved that a system like the Russian interferes with the natural development of international competition the Russian Government would gladly take part with the other powers in considering by what means it would be possible to obviate such effects; but it would only consent to do this if the question were examined at full length and in its full extent, and all the consequences of indirect measures, such as the giving of premiums, the regulation of production, and the action of syndicates of various kinds, were considered, or protected by governments were made the subject of discussion, and it were admitted that the agreement arrived at should apply, not only to sugar, but to other products also and may well partake in international commerce. This offer, it was hoped, would show the readiness of the Russian Government to cooperate in protecting from artificial reduction the prices of sugar and other products on the international market. It was in effect a proposal to suppress or to regulate by international agreement the cartels, syndicates, trusts which have been developed in Germany to a fuller extent than in other countries, not the sugar cartel alone, but the steel cartel and other combinations which regulate production and prices and the other products which are sold in all the main branches of industry which adopt various methods of selling cheap abroad in order to sell dear at home. The Russian import duty on sugar is 1.50 of the per pound, and 4.50 rubles on raw sugar. The Russian producers are therefore protected by a surtax of 4.25 rubles per pound, equivalent to 32.50 francs per 100 kilograms. The Russian Government upheld its argument that the application of countervailing duties against Russian sugar would be an infringement of treaties. It did not intend to carry on a general tariff war against all the powers at once, but would consider itself free to disregard treaty stipulations when it saw fit and to adopt such measures as would be advantageous to Russia in the case of any of them. Goods imported into Russia by industrial trusts would be the first to be subjected to discriminating treatment. India imposed countervailing duties on bounty-fed sugar after the failure of the Brussels conference of 1898, but they were not sufficient to keep out European beet-sugar, which constituted more than half of the Indian imports in 1902. As well as the imports from Mauritius, and this was supposed to be due to the operation of the sugar cartels as revealed in the discussions at Brussels. After the conclusion of the conference the countervailing duty was fixed by the Indian Government at a higher figure, against which
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action the Austro-Hungarian and also the Russian Government raised a protest.

The position of the Republic is on the South American continent, north of Argentina. This country was the scene of a war made in 1892, military service in these various bodies of the National Guard is compulsory on all Bolivians between the ages of twenty-one and fifty years. The total number of national guardsmen is about 3,000, of whom 4,000 are infantry, each of 4 companies of 220 men, armed with Mauser rifles of the Argentine model of 1893 and the Bolivian of 1896, having a caliber of 7 millimeters; 2 cavalry regiments; and 2 regiments of artillery. There is a garrison battalion in each department.

Commerce and Production.—Coffee is exported to Chile and the Argentine Republic. Sugar is grown to be distilled into rum, but the supply of this beverage is supplemented by imports from Peru. The production of coca, mostly in La Paz, is valued at 2,000,000 bolivianos a year. Cinchona is another important export. Large quantities of rubber are obtained in the Acre region and shipped down the Amazon. The production of silver, including the contents of concentrated ores, in 1899 was 11,155,190 ounces. The export of barillas, or tin ore, in 1900 was 10,080 tons, and of bar tin, 1,651 tons. The annual production of molybdenum and copper in 1900 was 3,046,645 bolivianos. Gold is washed by Indians, and companies have been formed to work some promising locations. Lead, zinc, antimony, bismuth, wolfram, salt, and petroleum are found. The total value of imports in 1900 was 13,344,118 bolivianos, and of exports 35,657,690 bolivianos. Imports of cotton goods were valued at 2,011,494 bolivianos; woolen goods, 1,549,409 bolivianos; provisions, 1,642,406 bolivianos; cattle, 1,004,294 bolivianos; machinery and hardware, 1,060,177 bolivianos; spirits and wines, 971,629 bolivianos; clothing, 751,053 bolivianos. The value of mineral exports was 23,794,268 bolivianos; of vegetable products exported, 11,249,283 bolivianos; of animals and animal products, 614,127 bolivianos. The exports of silver and silver ores were valued at 12,626,286 bolivianos; tin and tin ores, 8,579,539 bolivianos; copper ore, 1,025,030 bolivianos; bismuth, 271,702 bolivianos; lead, antimony, wolfram, gold, and zinc, 106,467 buss mestizos and very few of pure European blood. Many Indian tribes still retain their original organization and customs. La Paz has 57,660 inhabitants; Cochabamba, 21,896; Sucre, 12,207. The financial revenues of the state are about 5,350,000 bolivianos in customs duties, 1,627,000 bolivianos in revenue from salaries, and 1,515,000 bolivianos in public charges and imposts. The foreign debt, originally 6,550,000 bolivianos, has been reduced by applying 40 per cent. of the Arica customs to its extinction, and in 1900 only 818,813 bolivianos were outstanding. The internal debt amounted in 1901 to 4,004,020 bolivianos. The departments received in 1901 from land taxes, excise duties on coca, tobacco and spirits, state subventions from the National Government a revenue estimated at 2,152,359 bolivianos, and spent 2,175,600 bolivianos, mainly for police, justice, public works, education, and public works.

The Army.—There is a standing military force of 2,680 men. The militia held in readiness number about 30,000, and the regular and extra reserves 40,000, besides which there is a territorial guard of 4,000 men.

Area and Population.—The area, including the territories, is estimated at 734,390 square miles. The population, estimated from the incomplete returns of the census of Sept. 1, 1900, is 1,785,674. The department of La Paz, area 171,130 square miles, had 425,800 inhabitants; Oruro, area 21,350 square miles, had 96,601; Chuquisaca, area 381 square miles, had 186,143; Cochabamba, area 21,430 square miles, had 326,163; Tarija, area 34,610 square miles, had 77,887; Potosi, area 52,100 square miles, had an estimated population of 366,200; Beni, area 100,580 square miles, is estimated to have 38,700; Santa Cruz, area 87,700 square miles, has a population estimated at 210,900. The population for the territory of Madre de Dios, area 13,400 square miles, is 18,600, and for the Purus territory, area 192,300 square miles, the estimate is 48,900. The people are mainly of the native Indian race. There are numerous Indians tribes and very few of pure European blood. Many Indian tribes still retain their original organization and customs. La Paz has 57,660 inhabitants; Cochabamba, 21,896; Sucre, 12,207. The financial revenues of the state are about 5,350,000 bolivianos in customs duties, 1,627,000 bolivianos in revenue from salaries, and 1,515,000 bolivianos in public charges and imposts. The foreign debt, originally 6,550,000 bolivianos, has been reduced by applying 40 per cent. of the Arica customs to its extinction, and in 1900 only 818,813 bolivianos were outstanding. The internal debt amounted in 1901 to 4,004,020 bolivianos. The departments received in 1901 from land taxes, excise duties on coca, tobacco and spirits, state subventions from the National Government a revenue estimated at 2,152,359 bolivianos, and spent 2,175,600 bolivianos, mainly for police, justice, public works, education, and public works.

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The article has offered to instead pay 6,000,000 bolivianos in compensation. This proposition Bolivia has refused to consider.

Railroads, Posts, and Telegraphs.—A railroad from Antofagasta enters Bolivian territory at Ascotán, and has been extended to Uyuni and Yura, with a branch to Imbabura. The Bolivian sections have a length of nearly 500 miles. A railroad from La Paz to the Peruvian frontier, to connect with the Peruvian line now half built from the port of Mollendo to Lake Titicaca, is soon to be undertaken. A line from Santa Cruz to the river Paraguay is contemplated. Railroads from Oruro to Cochabamba and from Chapallata to Colquechaca have been authorized, and a route has been examined for an international railroad into the Argentine Republic.

The total length of telegraph-lines is 2,454 miles. The number of letters, postal cards, newspapers, and other mail-matter carried in the mails in 1900 was 2,222,176 in the internal and 72,240 in the international service.

Boundary Disputes.—In the extreme north of Bolivia the valleys of the Acre and Yacu and of the Amazon and Beni rivers have been claimed by both Bolivia and Brazil, and the Acre territory, which is one of the richest rubber districts remaining, has been disputed by Peru also. American and Brazilian long interested parties into this region to gather rubber, which is taken in boats down the Amazon, the only outlet. When none of the governors which claim the territory exercised any authority there adventurers from various parts of the world attempted to set up an independent republic there, intending to exploit its natural wealth for their private benefit. They fell to quarreling among themselves, and others came in to contend for the prize. One dictator succeeded another until the interested governments, each of which protested against the recognition of the foreign usurpers, took steps independently of each other to assert sovereign rights and suppress the American and European claimants. Bolivian, Brazilian, and Peruvian forces met with four shot, and the whole proceeded to gather rubber. On one occasion twelve shots were fired. Whenever the Government forces retired the foreigners again set up their authority, and among them desperate conflicts arose. The ships were taken over, and this was in spite of the occasional interference of the white desperadoes and of savage tribes. Men interested in the rubber trade were involved in the scheme to set up an independent jurisdiction. The chief object of the men who proclaimed the republic of Acre was to avoid paying 15 per cent. export duty which Bolivia levies on rubber. Although some of them were Brazilian citizens, the Government of Brazil did not favor the erection on its border of an irresponsible state of buccaneers whose treatment of the Brazilian natives whom they took into Acre to gather rubber was barbarous. The frontier between Brazil and Bolivia was submitted to arbitration. The Brazilian claim to the Acre territory was met by the arbitrator as follows: What the rights of Peru were on these affluents of the Amazon and the Andean plateau remained undetermined. In 1902 an arbitration treaty was arranged between Bolivia by the arbitrator was for Bolivia to have the right of navigation on the rivers, save against those to whom the right has already been conceded, and it receives all the mineral rights within the territory for twenty years to be free from all taxation, and it can import anything free of duty. Of the taxes and duties it collects it retains 40 per cent. and pays...
60 per cent. over to the Government. The company undertakes to furnish a police force at its own expense, but the Government will furnish troops if they are necessary to defend the frontier. At the end of thirty years the Bolivian Government may resume the fiscal administration, but the company may retain its privileges of trading and exploitation perpetually. The company can develop ways of communication of all sorts and charge tolls for their use. It undertakes to assist the Government to raise a loan on the security of the Government's share in the taxes and customs. In Caupolican the company receives an exclusive title to all valuable lands as soon as they are surveyed, is exempt from taxes and customs duties for fifty years, can charge tolls on roads and waterways for that period, must maintain a police force and establish a postal service, and pays to the Government 20 per cent. of the annual profits, while 20 per cent. more are to be expended in improving communications. The great rubber forests on the Beni, Madre de Dios, and Orton rivers, which have their outlet down the Madeira river, are outside these concessions and are already in the hands of independents and companies which lose a good part of the rubber in the falls of the Madeira and pay heavy charges for transport. The Acre rubber goes down the Purus and the Yurua, while that from Caupolican is transported by a mule road, which is being improved, over the cordilleras to Lake Titicaca. A strip along the border of both Acre and Caupolican is the disputed area which Peru disputes with Bolivia. What part of the areas can be claimed by Peru can only be determined by a survey of the frontier. Whenever the Bolivian Government has attempted to establish its authority in these regions Peru has raised a protest, and when the terms of the concession to American capitalists were made known the Peruvian Government strongly protested. On several occasions agreements have been signed between Bolivia and Peru in order to settle their differences, but they have never been finally ratified. The last agreement, concluded after the Brazilian arbitration and before the concession to the Anglo-American chartered company, seemed more likely to lead to a definite treaty. The Brazilian Government protested vigorously against the invasion of an American syndicate of a vast territory on the Amazon river, such syndicate to have powers of internal administration. Bolivia offered to transfer to it all the property held in order to allay this opposition. The Brazilian Government replied on April 14, 1902, that the territory in question is still the subject of contention with Peru, and in no case would Brazil agree to a lease which gives to the lessee the use of military force and really gives up sovereign rights, so that if Brazil were a party to such an arrangement she would have to meet face to face authorities which she never can or will acknowledge. The Brazilian Government thereupon withdrew from the consideration of the Brazilian Congress a treaty of commerce and navigation with Bolivia which had been submitted to its approval, threatened to break off all diplomatic relations with Bolivia if the lease of territory in the Acre region were not rescinded, and announced that obstacles would be placed in the way of any development by the syndicate of this region by means of the alluents of the Amazon running through the Brazilian territory. The United States Government, while making it clear that it could not interfere in behalf of the American syndicate beyond asking fair consideration, tendered its good offices for the settlement of the boundary dispute. Brazil, a federal republic in South America. The National Congress consists of a Senate of 63 members, 3 from each state and 3 from the federal district, elected for nine years by direct suffrage, one-third retiring every three years, and a House of Deputies containing 212 members, 1 to 70,000 of population, elected for three years. Every adult male Brazilian has the right to vote, with the exception of soldiers in active service, members of monastic orders, papists, and persons who have been convicted of crime. The President of the Republic is elected by direct suffrage for four years. Dr. Manoel Ferraz de Campos Sales was elected President for the term beginning Nov. 15, 1898, and Dr. Francisco Rosa e Silva was elected Vice-President. The following ministers were in office at the beginning of 1902: Minister of Foreign Affairs, Dr. Olynto de Magalhães; Minister of Finance, Dr. Joaquim Martinho; Minister of War, Marshal João Nepomuc de Medeiros Mallet; Minister of Industry, Alfredo Maia; Minister of the Interior and Justice, Sabino Barroso; Minister of Marine, Rear-Admiral Aureliano Chaves. Area and Population.—The area of Brazil is officially estimated at 3,218,130 square miles. A census taken in 1900 was rejected by the Government as defective since it showed a decrease in population, whereas a considerable increase was expected. According to the census of Dec. 31, 1890, the population was 14,335,915, consisting of 7,237,832 males and 7,098,083 females. The population in 1900 had reached 17,667,818. The total population in 1890 comprised 6,302,198 white persons, 4,583,495 of mixed race, 2,067,420 negroes, and 1,935,796 Indians. The number of immigrants in 1898 was 53,822, including 33,272 Italians, 11,662 Portuguese, 5,943 Spaniards, 669 Austrians, 477 Germans, 247 French, 137 Russians, and 120 Swiss. The total number of foreigners domiciled in Brazil is estimated at 2,093,500, comprising 1,300,000 Italians, 800,000 Portuguese, 300,000 Germans, 100,000 Spaniards, 80,000 Poles, 10,000 French, 5,000 British, and 100,500 others. Finances.—The estimated revenue in 1900 was 53,975,000 milreis in gold and 312,358,000 milreis in paper, and the expense 27,974,000 milreis in gold and 283,162,000 milreis in paper. For 1901 the revenue was estimated at 56,880,000 milreis in gold and 286,082,000 milreis in paper, and the expense 32,578,000 milreis in gold and 244,514,000 milreis in paper. The budget for 1902 makes the revenue 42,877,000 milreis in gold and 257,361,000 milreis in paper, of which 33,430,000 milreis in gold and 7,425,000 milreis in paper were import duties, 1,000,000 milreis in gold and 72,744,000 milreis in paper were revenue from internal revenue, 34,870,000 milreis in paper were excise duties, 90,000 milreis in gold and 1,645,000 milreis in paper were for the redemption of the currency, 6,600,000 milreis in paper were revenue for the amortization fund, 2,530,000 milreis in paper were for the port fund, and 72,000 milreis in paper were for a salvage fund. The expenditures for 1902 were estimated at 33,553,000 milreis in gold and 224,415,000 milreis in paper, of which 15,916,000 milreis in paper were for the Ministry of the Interior, 10,978,000 milreis in gold and 828,000 milreis in paper for the Ministry of Foreign Affairs, 23,200,000 milreis in paper for the Ministry of Marine, 45,579,000 milreis
The external consolidated debt outstanding on January 1, 1901, was 304,906,448 milreis, and the internal consolidated gold debt amounted to 272,999,000 milreis, making the total debt payable in gold 421,905,449 milreis. The internal consolidated debt payable in paper was 533,298,673 milreis, and there was a floating debt of 165,577,335 milreis. The paper money in circulation amounted to 689,000,000 milreis, making the total paper debt 1,972,000,000 milreis. The states owe about 150,000,000 milreis in gold.

The Army and Navy.—The active army had a nominal strength of 58,160 men in 1901, organized into 10 regiments of cavalry, 6 regiments of field-artillery containing 24 batteries, 6 battalions of fortress artillery, 3 battalions of engineers, and 6 squadrons of train. The budget provided an establishment for the army and navy, but the actual strength was much smaller. Since 1875 military service in the National Guard is by law obligatory. Although the law has not been enforced, the National Guard is being reorganized and improved. The soldiers of the regular army are armed with Mauser rifles of the caliber of 7 centimeters. The gendarmerie numbers about 30,000 men.

The navy in 1901 consisted of 2 second-class battleships, 2 iron-clad coast-guards, 7 armored gunboats, 10 small cruisers, 18 gunboats, 10 first-class torpedo-boats, 10 second-class torpedo-boats, 2 submarine boats, 2 torpedo school-ships, and 2 monitors. The old battleships Rialto and 24 de Mayo have 11-inch armor and carry in their turrets 40 of these big projectiles, besides which they have 6 4.7-inch quick-fires, 2 3-pounders, and 15 machine guns. The French-built Deseo and Floriano, of 3,102 tons, are plated with 13.7-inch Harvey armor and armed with 2 6.4-inch guns, 2 6-inch howitzers, and 2 4.7-inch quick-fires. The Tamoanare, built in Brazil in 1898, and the English-built protected cruiser Barroso have a strong quick-firing armament.

Commerce and Production.—The main product of Brazil is coffee, the supply of which has increased by 25.220 miles of wire. The number of despatches in 1898 was 38,085,000 letters and postal cards and 29,250,000 pieces of printed matter and samples. The telegraphs have a length of 12,830 miles of line, with 25,220 miles of wire. The number of despatches in 1898 was 2,662,711.

Politics and Legislation.—The congressional session which began on May 3, 1902, was the last one of the present legislature. When his term began gold payments were suspended and 788,000 contos of reis in paper money were in circulation. The rate of exchange for the paper money was 7 1/2 milreis for a dollar. The silver bonds were at 50 per cent. discount. There was due on the loan of 1897 the sum of £1,122,000 and £273,000 for war material, and the treasury owed 20,395,000 in bills and notes to the Bank of the Republic, while the President
found only £21,713 with the Rothschilds in London and $5,000 contos in the treasury. There were, moreover, large deficits for the previous years. To cut down expenses and provide more money was the only way to get the country out of its difficulties, and that was the program adopted by the Government at the time. When the elections were held in 1897, the paper money had been reduced to 189,000 contos and the Brazilian bonds had been reduced to 200,000 contos. The rest of the loan of 1897 has been repaid, and the treasury bills are outstanding, the Government having at the end of the financial year £2,000,000 credit in London and 12,000 contos and £500,000 sterling with the Bank of the Republic. The era of deficits has come to an end of substantial surpluses. With the funding loan of $6,750,000 the nominal amount of the debt was about $2,000,000 greater, but adding the amount of paper money redeemed to $4,500,000 of gold bonds and 5,200 contos of internal bonds, a considerable amount of debt has been wiped out. The San Francisco railroads were acquired by the Brazilian Government by bonds paying 5 per cent., instead of the 7 per cent. paid by the Imperial Government; and for the purchase of the other railroads £2,000,000 of 4-per-cent. bonds were issued, only £300,000 more than would have been due had they remained in the possession of the private property of the companies. The Government has leased some of the redeemed lines with advantage, the deficits of some have been turned into surpluses, and the surpluses of others have been increased. The commercial agreement with Italy was continued till Dec. 31, 1902, pending a new arrangement. In return for concessions in favor of Italian products, for which on account of the large Italian population there is a growing demand in Brazil, the Brazilian Government asked for complete exemption from duty on Brazilian coffee; when this was refused, it offered to continue the minimum tariff for three years only in return for a large reduction in the Italian coffee duty. Germans complain that German immigrants and their descendants in Brazil encounter hostility from the Italian settlers and are subjected to injustice; that in many cases the provincial government of Rio Grande do Sul had declared that the land sold to the ancestors of the Brazilian landowners who sold the farms to their ancestors had failed to fulfill the terms on which the land had been granted. The German owners have demanded that they be reimbursed and in others had been compelled to buy the land over again without allowance being made for the improvements they had made themselves. Nevertheless, emigration to Brazil is encouraged by the colonial policy in Germany in the hope that the German communities there will preserve a patriotic attachment to the empire and extend its influence.

Dr. Francisco Rodrigues Alves, who arranged with the European companies for the transfer of the guaranteed railroads to the Government, was on March 1 elected President of the republic for the term beginning Nov. 15, 1902, and Dr. Silvano Brandao was elected Vice-President. On Sept. 2 Dr. Joaquin Murtinho, who carried out the reforms of the restoration and of the country's finances, desiring to enter the Senate, resigned the Ministry of Finance, which was taken over by Sabino Barroso, the Minister of the Interior, for the remainder of his presidential term.

BRITISH COLUMBIA, a province of the Dominion of Canada. Area, 383,300 square miles; population, about 177,000.

Politics and Legislation.—At the beginning of 1902 the Government was composed of James Dunsmuir, Premier and President of the Council; D. M. Eberets, Attorney-General; J. D. Prentice, Minister of Finance, Agriculture, and Education; W. C. Wells, Chief Commissioner of Lands and Works. The Defence Ministry was vacant, and remained so until Feb. 27, when E. G. Prior, who had once been a member of the Conservative Government at Ottawa, was appointed minister. In politics the Government was a coalition, and the personal element remained during this year an important feature in British Columbia politics, although a feeling in favor of introducing direct party politics into the administration of provincial affairs grew steadily in force. A stormy session of the Legislature followed, with a fluctuating Government majority. Mr. Dunsmuir went to England after its adjournment to attend the coronation, and not long after his return he resigned the premiership in favor of Col. Prior, who on Nov. 26 announced the following as his Cabinet: Premier and Minister of Mines, E. G. Prior; Attorney-General, D. M. Eberets; President of the Council, W. B. McInnes; Ministers of: Provincial Secretary and Minister of Education, Dennis Murphy; Commissioner of Lands and Works, W. C. Wells.

Meanwhile the Legislature had been opened on Feb. 20 by Lieut.-Gov. Sir Henry Joly de Lotbiniere, after C. E. Pooley had been elected Speaker and Richard McBride chosen leader of the Opposition at a meeting of the speech from the throne contained these passages:

"In view of the unfavorable conditions which affected the mining industry during 1901, it is especially gratifying to know that the output of the mines considerably exceeded that of any previous twelve months, and that the year closed with several detrimental causes removed, and with prospects of greatly increased activity and development. Negotiations with the authorities at Ottawa, begun last year, have been continued by my Government, and a conference has been agreed to for the further discussion of matters affecting the relations of the province of British Columbia and the Dominion of Canada under the terms of union. A report will be laid before you concerning the commission which inquired into and adjusted, where possible, freight rates on agricultural products. It is satisfactory to state, as a consequence, that substantial reductions have been made and in others very great satisfaction that the agricultural industry in this province is so prosperous. To further the interests of the stockraisers of the interior a measure will be submitted providing for the establishment of a system of cold storage in connection with abattoirs.

"The subject of fishery development is one which has been receiving greatly increased attention, and the efforts of my Government are in the direction of placing the industry on a more satisfactory footing. Steps will be taken with a view to the introduction of a fair measure of redistribution. Measures will be submitted for your consideration having for their object the encouragement of immigration and the settlement of unoccupied lands. A measure will also be submitted for the purpose of consolidating existing loan acts and obtaining authority thereunder for the issuance of a small term.

"Under the authority of legislation of last session, agreements have been entered into with several companies for the manufacture of pulp
and paper, and negotiations are now being carried on for the establishment of these industries. Negotiations are being carried on for the purpose of securing the extension of the railway lines from Revelstoke to Yellowhead pass, to connect with the railway system on Vancouver island, and for the construction of the Coast Kootenay Railway. Legislation will be introduced dealing with taxation and assistance to hospitals. The estimates of revenue and expenditure have been carefully prepared with a view to the strictest economy being exercised, and will be submitted without delay.

An important piece of legislation during the session, which closed on June 21, was a measure increasing the number of members of the Legislature from 38 to 42. Vancouver received 1 more member, or 5 against Victoria's 4. The bill passed its second reading on March 25 by 32 to 3, and was declared by many Opposition members to be extremely fair. It eventually became law.

Railway Legislation.—The most important enactment of the session was the passing of a measure that temporarily settled the problem of aiding transportation through the northern part of the province and of meeting the popular demand for some form of competition with the Canadian Pacific Railway. By this act, which was presented on May 6 and finally passed, the old Victoria, Vancouver, and Eastern Railway project was merged in a new line—the Vancouver and Kootenay Railway—and Messrs. MacKenzie and Mann, with their American supporter, J. J. Hill, received the reward of prolonged agitation. The measure provided for land and money to the Canadian Pacific Railway, from Bute inlet to the eastern boundary of the province, and to the Vancouver and Coast Kootenay Railway Company. To aid the Canadian Northern, the Government was to pay for the first 50 miles of railway, beginning at or near Bute inlet, $4,800 a mile; from the end of the said first 50 miles to the point nearest to Quesnel, $4,000 a mile; from the said point nearest to Quesnel to the eastern boundary of British Columbia, at or near Yellowhead pass, $4,500 a mile; and also 29,000 acres of land for each mile of railway, the option to sell the land to the Railway Company at the current price of Government lands, and to accept the cash subsidy in British Columbia 3 per-cent. inscribed stock.

The Vancouver and Coast Kootenay Railway the Government offered $4,000 a mile for the western 80 miles; for the next 100 miles, $4,800 a mile, and for the other 110 miles, $4,000 a mile. The railway was to connect with the Victoria Terminal Railway and ferry company's line for Victoria. The Canadian Northern was also to run a ferry to Vancouver island and a railway down Vancouver island to Lord]. The Government also introduced a bill to borrow $3,000,000 to aid the railways, to pay the overdraft, and to carry on other public works.

The War.—On June 2 the following resolution was unanimously passed: "That this house, having heard with the greatest satisfaction that the war in South Africa has been brought to a successful termination, desires to extend to His Majesty's Government the most sincere and loyal congratulations upon the happy occasion."

In the course of his speech the Premier made the following: "It is at once a matter of pride and patriotic joy that we can join with the people of Great Britain and Britons everywhere in celebrating the successful outcome of a conflict in which our brave Canadian sons took so valorous and conspicuous a part, having among colonial troops won special distinction everywhere in South Africa and throughout the whole war. It is especially gratifying that the brave Canadians the boys of British Columbia were ever to the front in deeds of bravery and shared the hardest fighting and the longest and most memorable marches. The patriotic charge at Paardeberg will live long in history, and is engraved in the hearts of the British people."

Financial.—The receipts of the province for the fiscal year ending June 30, 1902, were $2,140,751, the expenditure $2,475,334. The estimated receipts for the year ending June 30, 1903, were stated to be $2,222,565; the estimated expenditure, $2,489,127. The following are the details of the receipts for the first and second periods mentioned. The estimate of receipts included: Dominion of Canada—subsidy, grant, and interest, $305,988.50; land sales (including estimated collections on overdue payments, $40,000), $80,000; timber leases, $110,000; free miners' certificates, $100,000; mining receipts, general, $175,000; licenses, $80,000; real property tax (including estimated collections on arrears, $80,000), $210,000; personal property tax (including estimated collections on arrears, $60,000), $140,000; wild-land tax (including estimated collections on arrears, $75,000), $130,000; income tax (including estimated collections on arrears, $13,000), $55,000; revenue tax, $150,000; mineral tax, $130,000; fines and forfeitures and small debt court fees, $16,000; law stamps, $14,000; probate fees, $10,000; registered mail receipts, $15,000; interest on investment of sinking-funds, $35,000; Chinese restriction act, 1884 (Dominion refund), $40,000; fisheries, etc., $35,000; succession duty, $20,000; royalty and tax on coal, $130,000; miscellaneous receipts, $44,100.

The expenditures in 1901—02 included $411,440 upon the public debt, $253,980 upon salaries, $231,132 upon justice, $41,225 upon legislation, $124,380 upon the maintenance of public institutions and $87,300 upon hospitals and charities, $110,200 upon administration of justice, $368,537 upon education, $32,694 for revenue services, $904,641 upon public works, and $119,000 upon miscellaneous matters.

The Opposition denounced the Government very freely for extravagance and for frittering up alleged deficits year after year. R. G. Talbot and Dennis Murphy were the chief speakers on this subject, and the latter estimated the public debt of the province at the close of 1902 as being nearly $10,000,000. Speaking on May 3, he explained this as follows: "The debt as it appears in the balance-sheet is about $6,450,465.06; unrecoverable assets, principally payments of interest on railway bonds, the details of which he had given, were $298,076.05; discount on diking items, $400,000; total, $6,749,141.13. To this must be added the overdraft for the current year. Taking the Finance Minister's own figures—he thought they were below the mark—this overdraft will on June 30, 1902, amount to $1,000,000. The overdraft on June 30, 1901, was $871,771.58, so that the increase during the current year will be in round numbers $759,086. Adding this amount to the debt as already computed of $6,749,141.13, the total net debt of the province on June 30, 1902, would be $7,578,141.13. The Finance Minister intended to raise a new loan of $3,000,000, of which, according to his own figures, $1,000,000 would be eaten up by the overdraft, leaving the sum of $1,000,000 to be added.
to the net debt, which would therefore be, when this new loan was floated, $4,278,141.13.

General Development.—The increase in development of British Columbia is shown by the following tables:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of miners</th>
<th>Number of fishermen</th>
<th>Number of farmers</th>
<th>Number of houses</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>2,728</td>
<td>5,521</td>
<td>2,681</td>
<td>5,755</td>
<td>45,459</td>
</tr>
<tr>
<td>1901</td>
<td>3,670</td>
<td>5,358</td>
<td>3,571</td>
<td>6,295</td>
<td>58,173</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>$129,000</td>
<td>$1,218,075</td>
<td>$3,073,299</td>
</tr>
<tr>
<td>1901</td>
<td>$2,000,000</td>
<td>$1,500,000</td>
<td>$3,000,000</td>
</tr>
</tbody>
</table>

Coal mined (tons) ....... | 61,000 | 628,000 | 1,099,000 | 1,099,000 |

In the ten years 1890–1900 there were spent in hospitals $528,000; education, $2,388,135; roads, streets, bridges, works and buildings, $2,422,290; surveys, $230,473.

Mineral Production.—The total product of the mines of British Columbia was, in 1891, $172,241,988, of which $80,000,000 was in gold and $54,000,000 in coal and coke. The total production in 1898 was $10,900,861; in 1899, $12,203,121, in 1900, $13,449,935. The cost of production in the year ending Dec. 31, 1900, the placer gold produced was valued at $970,100, the lode gold at $4,268,435, the silver at $2,284,438, the copper at $4,446,963, the lead at $2,022,735, the coal and coke at $5,016,398, the miscellaneous minerals at $417,238.

Education.—The report of the Superintendent of Education for the year 1900–01 says the total enrolment during the year was 23,615, an increase of 2,064. Of this number, 12,049 were boys and 11,566 girls. The enrolment of the 5 high-schools was 894, an increase of 31; at the graded schools, 15,400, an increase of 1,047; at the common schools, 7,671, an increase of 406. The average daily attendance of all schools was 15,347.

The expenditure for education proper during the year was: Teachers' salaries, $213,088.23; incidental, $30,428.07; per capita grant to city districts, $395,940; education office, $12,205.81; normal school, $1,044.30; total, $312,507.18—less fees for teachers' examination, $1,320—net expenditure, $312,187.17. The expenditure for the construction of new schoolhouses, furniture, and repairs and improvements to school property was $35,345.14. The average cost for each pupil in enrolment districts for principals and teachers was $59.26, and the average monthly salary for rural teachers and monitors $322.50.

The Chinese Question.—On Feb. 27 the report of the royal commission of 1901 to inquire into the question of Oriental immigration was submitted to Parliament. The decisions of this voluminous document may be briefly summarized.

The belief was expressed that the Chinese kept out immigrants who would become permanent citizens and created conditions insanitary to labor and dangerous to the industrial peace of the community where they resided, spent little of their money, and traded chiefly with their own people. The commissioners believed it was impossible for the province of British Columbia to take its place and part in the Dominion unless its population was free from any taint of a servile class not imbued with a sense of the duties and responsibilities appertaining to citizenship.

The estimated white population of British Columbia was 129,000, and 16,000 Chinese. The commissioners pointed out that British law had recognized that aliens can be kept out of the country, especially if as a class they are undesirable. The commissioners approved the views of the Legislature of British Columbia, alleging the probability of a great disturbance to the economic condition of the province and of grave injury being caused to the working classes by the large influx of laborers from China. They found that the capitation tax at $100 was ineffective and inadequate. They were of the opinion that the further immigration of Chinese laborers into Canada ought to be prohibited, and in the meantime the capitation tax should be raised to $600. Messrs. Clute and Foley recommended that the capitation tax should be raised at once, while Commissioner Munn recommended that $300 should be imposed for two years, and if a prohibitive treaty be not obtained within that period, that it be then raised to $500.

Boards of Trade Convention.—A convention was held at Kelowna during the week ending March 1, composed of representatives of the boards of trade of British Columbia. Resolutions were passed, including one that increasing the duties on white lead and other manufactured lead products in Canada; another from Rossland regarding proposed popular safeguards against corporations incorporating in the Crow's Nest fields; one protesting against the injustice of the existing mineral tax, and asking the Government to reduce it so as to levy on the net value of the ore by deducting, in addition to the present freight and treatment charges, the cost of mining exclusive of capital expenditures. It was declared that further revenue might be obtained by rigidly enforcing the tax of 25 cents an acre now levied on non-working Crown-granted mineral claims, and also by increasing the fees for recording assessments.

Conservative Convention.—On Sept. 12–15 a gathering of representative Conservatives was held at Revelstoke. It was addressed by R. L. Borden, the Dominion party leader, and John Houston, M. P. P., was elected president of the Provincial Conservative Association. Charles Wilson, K. C., was selected as the provincial leader, and after speeches from Col. Prior, the hon. T. Carter-Cotton, and the hon. R. Macneil, opposing leaders in provincial politics, the resolution was passed in favor of the introduction of Dominion party lines into provincial affairs. The following resolutions were also passed:

"That the policy of the party in matters of provincial roads and trails, ownership and control of railways, and the development of agricultural resources as laid down in the platform adopted in October, 1899, is hereby reaffirmed.

"That to encourage the mining industry the taxation of metalliferous mines should be on a basis of percentage on net profits.

"That Government-owned telephone systems should be brought about as the first step in the acquisition of public utilities.

"That a portion of every coal area hereafter to be disposed of should be reserved from sale or lease, so that state-owned mines may be easily possible if their operation becomes necessary or advisable.

"That in pulp-land leases provisions should be made for reforestation; and that steps should be taken for a general preservation of forests by guarding against a wasteful destruction of timber."
That the Legislature and the Government of the province should persevere in an effort to secure the exclusion of Asiatic labor.

That the matter of better terms in the way of subsidy and appropriation for the province should be vigorously pressed upon the Dominion Government.

That the silver and lead industries of the province be further encouraged by the imposition of increased customs duties on lead and lead products imported into Canada, and the Conservative members of the Dominion House be urged to support any motion introduced for such a purpose.

That as industrial disputes almost invariably result in great loss and injury both to the parties directly concerned and to the public, legislation should be passed to provide means for an amicable adjustment of such disputes between employers and employees.”

Meeting of Liberals.—On Feb. 6 a provincial Convention of Liberals opened in Vancouver, with Senator Templeman, chairman of the provincial Executive of the party, in the chair. The object was to discuss the question of introducing party lines into provincial politics and to select a leader or discuss the advisability of doing so. The whole matter soon settled into a struggle on the question whether Mr. Martin should be chosen by the convention or the subject be postponed to another occasion. The chairman found the meeting hard to control from the beginning, and the first important issue raised was the right of the provincial Executive to appoint its members as members of the convention. Disputes as to credentials, therefore, occupied the attention of the delegates present, and the speeches were interspersed with opinions for and against the adoption of party lines. Finally a vote of 69 to 41 declared that the provincial Executive and the editors of Liberal newspapers appointed by that body were not entitled to membership in the convention. Senator Templeman and his friends then left the hall, and those present elected G. R. Maxwell, M. P., as his successor, who chose Mr. Martin the party leader by a substantial majority, and passed resolutions in favor of the adoption of party politics in provincial affairs and of fealty to Sir Wilfrid Laurier as the Dominion leader.

Labor Party and Questions.—On April 11-13 a convention of labor representatives was held at Kamloops, and Christopher Foley, of Rossland, was elected president of a newly organized provincial Progressive party, with the following platform:

1. That we gradually abolish all taxes on the producer and the products of the producer, shifting them on land values.

2. Government ownership of railways and means of communication.

3. That the Government establish and operate smelters and refineries to treat all kinds of minerals.

4. That the franchise be extended to women.

5. The abolition of property qualifications for all public offices.

6. Farms, improvements, implements, and stock not to be taxed, and wild lands to be assessed at the price asked for them by speculative holders.

7. No land or cash subsidies. Lands to be held by the actual settlers.

8. Ten per cent. of all public lands to be immediately set aside for educational purposes, and the education of all children, up to the age of sixteen years, to be free, secular, and compulsory. Text-books, meals, and clothing to be supplied out of the public funds when necessary.


10. Restriction of immigration by a law on the lines of the Natal act; and if said law be disallowed it be repeatedly reenacted until the end sought is obtained.

11. That to protect us from Asiaties already in the province the Government insert a clause in all private acts to this effect: ‘This act shall be null and void if the company fails to enter
BRITISH COLUMBIA.

into an agreement with the Government as to condi-
tions of sale or operation; and the House pass a resolution instructing the Govern-
ment to prohibit the employment of Asians on all franchises granted by the provincial House.

"12. Conservation of our forest riches. Pulp-
land leases to contain a provision for reforesting,
so as to produce a perennial revenue and make pulp manufacture a growing and permanent in-
dustry.

"13. That the act compelling the sealing of
logs by Government scalers be enforced.

"14. Absolute reservation from sale or lease of a coal mine in Sublime Point, coal area.
All leases or grants hereafter made to contain a pro-
vision enabling the Government to fix the price of coal loaded on cars or vessels for shipment to
be sold to consumers.

"15. Municipalization and public control of the
liquor traffic.

"16. That there be a referendum where a valu-
able body of coal is to be carried, and has not
17. That all transportation companies be
compelled to give transportation free to mem-
bers of the Legislative Assembly and Supreme Court
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"18. Election day to be a public holiday. Pro-
vision made that every employee shall be free
from service at least four consecutive hours dur-
ing polling time.

The British Pacific Cable.—At three o'clock
in the morning of Oct. 31, 1902, at Suva, in the
Fiji Islands, was completed the last link in the Pacific cable, placing British Columbia, in direct communications with Australia and New Zealand. A message of congratulation was despatched immediately to the King, and another to Lady Vogel, expressing regret that her hus-
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vision made that every employee shall be free
from service at least four consecutive hours dur-

BULGARIA, a principality in eastern Europe
under the suzerainty of Turkey, created an
autonomous tributary principality by the treaty
of Berlin signed on July 13, 1878, by representa-
tives of the great powers. The Prince of
Bulgaria, according to the treaty, was to be
Elected by the population and confirmed by the
Porte, proclaimed as an
union with Bulgaria in 1885, and in 1886, the
powers having tacitly accepted the fact accompli,
the Sultan appointed the Prince of Bulgaria to
be Governor-General of the province. The
administration of Prince Alexander of Battenberg,
but his election was not confirmed by the Porte and
the powers till 1896. The heir to the throne is
Prince Boris, born Jan. 30, 1884. On Feb. 14,
was received into the Orthodox Greek Church
on Feb. 14, 1896. The legislative authority is
vested in a single Chamber called the S obranje,
composed of 150 members, 1 to 20 of whom are
appointed by the Porte and 100 by the Populacess.
prince is Alexander of Battenberg,
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prince is Alexander of Battenberg,
but his election was not confirmed by the Porte and
the powers till 1896. The heir to the throne is
Prince Boris, born Jan. 30, 1884. On Feb. 14,
loan of 1889, 121,717,000 lei of the 6-per-cent. bond authorized in 1895, 21,875,000 lei of a much later 6-per-cent. treasury bonds issued Jan. 1, 1900, and secured on the tobacco tax, and 9,700,000 lei of the Russian occupation debt. The Eastern Roumelian tribute payable to Turkey is 2,951,000 lei per annum, besides 600,000 lei to clear up the arrears of 3,243,000 lei. The Government was authorized by a law passed in June, 1896, to convert the entire public debt into a new loan of 290,000,000 lei with interest at 5 per cent. The Bulgarian tribute and the Bulgarian share of the Turkish public debt were to be fixed according to a provision in the Berlin treaty. The claims of Russia for the expenses of the occupation, 26,500,000 lei payable in annual instalments of 2,000,000 lei, ought to have been extinguished at the end of 1902. The Eastern Roumelian tribute, originally fixed at 6,125,000 francs, was reduced in 1883 to 4,823,000 francs. After the union with Bulgaria, in 1886, the Government left it unpaid till 1894, when a further reduction to 3,250,000 francs was obtained on condition that the arrears should be paid up in annual instalments of 500,000 lei. In 1896 the Bulgarian Government withdrew the obligation, and in 1897 the Administration of the Turkish Debt, to which the tribute had been assigned, agreed to take 2,830,000 lei henceforth if promptly paid equal to the old tribute. As it has not been paid. The amount of the foreign consolidated debt on Jan. 1, 1902, was 198,755,404 lei. Of the effective proceeds of the loans of 1889, 1891, and 1892, the 1892 was 228,307 lei. 111,884,808 lei were spent on railroads and harbors, while the remainder was used to meet deficits in the budget and pay interest for the sinking-fund. The floating debt on Jan. 1, 1902, amounted to 78,297,393 lei, exclusive of payments of 13,373,000 lei due on the last two budgets. To clear off the floating debt, the tobacco loan of 1900, and a part of the loan of 1892, the Government in 1901 arranged with a Paris bank to borrow on the guarantee of the tobacco revenue 150,000,000 francs at 8%, to be repaid in fifty years with interest at 5 per cent. The tobacco monopoly was to be created and conceded until the extinction of the loan to the bank, which, through the agency of a company whose officers it would appoint, would have for that period the exclusive privilege of manufacturing and selling tobacco and supervision over its cultivation, importation, and exportation. Of the surplus profit, after paying interest and amortization on the loan and 8 per cent. dividends to the shareholders, the state would receive 65 per cent. and the company 35 per cent. The loan was negotiated by the Cabinet of Petko Karayevoff, leader of the Democratic party, who before he took office deprecated a foreign loan, denounced the creditors of Bulgaria, the Jewish houses of Vienna and Berlin, and protested against monopolies in general and giant combinations of any kind to foreigners. All the economies he could effect when he became Premier and Minister of Finance were of slight value, and by remitting the unproductive title duties he had further crippled the resources of the Government. After obtaining, with difficulty, a loan of 4,000,000 lei from the Russian State Bank to avert insolvency, he had to content the very terms with the foreign money-lenders that he had denounced as ruinous and humiliating. The money for the proposed tobacco loan was to be provided, in fact, by the state by the French bank, but by the financiers who already held Bulgarian securities, and who were therefore interested in averting national bankruptcy. The budget passed by the Sobranje in 1902 was not much better than the others, notwithstanding the promises of the Kankoffit ministry to economize. The improvement in production and trade and in the general prosperity, however, was a favorable augury. The estimate of revenue for 1903 was 95,956,400 lei and that of expenditure was 98,896,337 lei, leaving a deficit of 2,942,937 lei, which was more than doubled by the uncollected arrears of taxes and the expenditure of 1,000,000 lei on the celebration of the battle of Shipka, on which occasion half the Bulgarian army maneuvered for the inspection of the Czar's generals.

The Army.—Service in the army is obligatory. The term is two years in the infantry and three years in the other arms. There are 24 regiments of infantry and skeletons of 24 reserve regiments; 5 regiments of cavalry, each of 5 squadrons; 6 regiments of field-artillery, each divided into 3 sections of 3 batteries of 6 guns each; 3 battalions of fortress-artillery; and 3 battalions of engineers and 1 technical battalion composed of 1 railroad company, 1 company of pontoniers, 1 company of telegraphists, and 1 company of train. The infantry is dressed in uniform, while the cavalry is a posteriori model of the rifle of 1888, having a bore of 8 millimeters. The cavalry carries carbines of the same caliber. The artillery have Creussel field-pieces of 7 centimètres calibre and Krupp mountain guns of the caliber of 7 centimeters. The peace strength of the army in 1901 was 2,500 officers and civil employees and 40,556 men, with 7,400 horses and 3,200 oxen and 312 guns, besides a reserve of 81,996 men, with 15,356 horses and 120 guns.

Commerce and Production.—The land tax in Bulgaria is one-tenth of the produce, paid in money or in kind. Villages have common pastures and woodlands which are not taxed. Of the total area, 9,670,500 hectares, 2,435,900 hectares are covered with farm and garden crops, 113,512 hectares are vineyards, 4,567,838 hectares are pasture, 1,675,250 hectares are forest, 312,000 hectares are meadows, 445,000 hectares are building land, road, water, etc. The farmers, who contribute 70 per cent. of the population, generally own the land they till. The main crop is wheat, most of which is exported; the production of attar of roses in 1900 was 4,300 kilogramas. The mercantile business is done mainly by foreigners—Greeks, Roumanians, Austrians, and Jews of all nationalities. Textiles, hardware, machinery, groceries, building materials, leather, petroleum, paper, and salt are the chief imports. The total value of imports in 1900 was 46,342,100 lei; of exports, 53,963,629 lei. The imports of textile goods were 13,296,869 lei in value; of groceries, 3,904,213 lei; of metals and metal manufactures, 5,197,706 lei; of machinery and implements, 2,786,114 lei; of lumber and wood manufactures, 1,335,271 lei; of leather and leather goods, 2,533,026 lei. The exports of cereals were 27,126,280 lei in value; of textile fibers and cocoons and woolen stuffs, 4,924,484 lei; of live animals, 5,609,462 lei; of animal food products, 4,632,535 lei; of attar of roses, 3,719,280 lei. The trade with the principal countries in 1900 is given in lei in the table on the next page. The total value of imports in 1901 was 70,444,073 lei and that of exports 82,769,759 lei, showing an increase of 51 and 53 per cent, respectively. Imports from England by the French bank, but by the financiers who already held Bulgarian securities, and who were therefore interested in averting
BULGARIA.

TUINERIES. | Imports. | Exports.
---|---|---
Turkey | 4,000,000 | 18,000,907
Austria-Hungary | 12,041,131 | 5,780,189
Great Britain | 7,248,331 | 5,190,360
Germany | 5,591,000 | 6,000,900
France | 1,991,100 | 2,000,000
Belgium | 3,991,000 | 4,000,000
Russia | 2,991,000 | 3,000,000
Italy | 2,191,000 | 2,201,000
Bulgaria | 2,810,000 | 2,820,000
Constantinople | 2,810,000 | 2,820,000
Serenity | 694,000 | 694,000
United States | 341,000 | 350,000
Switzerland | 150,000 | 150,000
Netherlands | 84,000 | 84,000
Sweden and Norway | 72,000 | 72,000
Other countries | 134,000 | 134,000
Destination unknown | 500,000 | 500,000

TOTAL | 44,456,100 | 58,950,000

Exports to England, 9,800,000 lei more; to Turkey, 6,400,000 lei more; to Belgium, 4,380,000 lei more; to Germany, 5,020,000 lei more.

Navigation.—The number of vessels entered at Bulgarian ports during 1909 was 10,833, of 2,357,827 tons; cleared, 10,827, of 2,360,914 tons.

Railroads, Posts, and Telegraphs.—The length of railroad lines in Bulgaria in 1909 was 970 miles, of which 784 miles were the property of the Government.

The length of Government telegraph lines in 1909 was 2,770 miles, with 4,724 miles of wire.

The number of dispatches sent was 1,366,041.

There were 1,228 miles of Government telegraph lines.

The postal traffic in 1899 was 21,176,000 pieces of mail-matter; receipts, including telegraph receipts, 3,060,637 lei; expenses, 3,105,188 lei.

Political Affairs.—The coupons of the foreign debt were paid in July, 1901, with 4,000,000 francs advanced by the Russian Government, which, in January, 1902, had to give an extension of the time for repayment. Premier Karaveloff laid before the Sobraje in December, 1901, the contract for the loan, which after protracted negotiations had been obtained from the French bank on condition that a monopoly of tobacco be given to the lenders. He was deserted by many of his own followers, who were pledged to vote for the loan. The Stamboloufists, however, for patriotic reasons determined to support the unpopular measure, which seems to offer the only escape from bankruptcy. Although promising excessive profits to the concessionaires, the tobacco monopoly in the hands of foreigners offered financial advantages to the Government, which loses about 2,500,000 lei of the tobacco revenue every year through contraband, and the country would benefit by the introduction of improved methods of cultivating and curing tobacco. But the country was exasperated against the grasping foreigners. This entering wedge of foreign financial control roused the national jealousy of the Bulgarians. When the question of the foreign arrangement was put to the Sobraje in the beginning of January Karaveloff was defeated, and the ministry resigned. M. Danoff, who had much to do with negotiating the loan for which M. Karaveloff as Minister of Finance had to accept the responsibility, formed a new Cabinet on Jan. 5, in which M. Sarafoff, the chief negotiator, was retained. It was a purely Zankofist ministry, which was not what the opponents of the loan wanted. The first vote of supply asked for was therefore refused. The Sobraje was dissolved and new elections were ordered in order to ascertain the temper of the people and give time to seek some other method. If possible, to save the Government from bankruptcy. Gold was obtained from Bulgarian banks to pay the coupon which was due at the end of the month. The new ministry let it be known that it considered the conditions of the loan rejected by the Sobraje as null and void and that it would endeavor to conclude another arrangement. An extensive fraud on the Government was discovered in which some officials and politicians were implicated. Plates for printing revenue stamps had been stolen, and forged stamps to the amount of 2,000,000 lei or more had been sold and used throughout the country for several years. The ministry was composed of Zankofists. Numerous changes were made in the official personnel in preparation for the elections.

Direct interference or coercion was precluded by the new electoral law, which the Government promised to observe loyally. On Feb. 6 the new Minister of Public Instruction, M. Kanchkov, who had been a schoolmaster in Macedonia and was quite popular, was murdered by a discharged teacher, also a Macedonian, and once his pupil, who was crazed by his desperate fortunes.

The Sobraje elected on March 2 contained 63 Progressists or Easterners; 14 Socialists; 13 Christian Democrats; and 13 Agrarians. The peasants in many places made demonstrations against the concession of the tobacco monopoly to foreigners, and the result of the election was a popular condemnation of the proposed loan. Before the Sobraje assembled Dr. Danoff went to Paris and St. Petersburg to obtain, if he could, more favorable loan conditions.

The financial embarrassment of the Government was the effect of the economic distress of the people, caused by a succession of bad harvests and an unfavorable state of foreign exchanges, and still more the result of financial errors and mismanagement on the part of the Government, of excessive military expenditure, extravagant outlay on public works, fiscal changes in 1895 which reduced revenue with a corresponding entailment of expenses, and the return to tithes in kind in 1900 which could not be collected. When the principality was first established there were surpluses for six years, and since 1892 the deficit has been chronic, averaging 9,500,000 lei a year. During the late period of agricultural depression taxes fell, in 1908 to 36,000,000 lei, or an amount of 20,000,000 lei. The unbusiness-like reminiscence of the Bulgarians in meeting financial obligations, a national trait of this peasant nation exhibited not only by individuals but by the Government, which in some instances has met the coupons only by obtaining advances from abroad at the last moment and has shown culpable indifference in regard to the Eastern Roumelian tribute, the hostility shown toward foreign creditors, the frequent political disturbances, and the recrudescence of the Macedonian agitation have combined to impair the public credit, although the debt is light and the productive resources of the soil and the people are abundant.

On March 23 the Cabinet was reconstructed as follows: Premier and Minister of Foreign Affairs, Danoff; Minister of Finance, Sarafoff; Minister of the Interior, Ludskofoff; Minister of Justice, Raiffe; Minister of War, Gen. Papoff; Minister of Public Instruction, Todoroff; Minister of Commerce and Agriculture, Abrasheff; Minister of Public Works, Constantinoff. All the members
BULGARIA.

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pledged to the Zankoffist party. Ministers Da-

nod and Sarafoff, through the influence of the

Koryaks, and intimidated the extract for a

sum of 100,000,000 francs at 5 per cent, to be

taken at 83, on the security of the tobacco-tax

revenue without the concession of a monopoly

duty. For the purpose of ratifying this

agreement and of voting supplies the Sobaranje

was summoned in extraordinary session on May

5th. The election of the aged Dragam Zankoff as

president of the Sobaranje indicated that the re-

constituted ministry could rely on its narrow

majority.

Since the reconciliation with Russia

de old party programs had lost their value.

The government policy was to seek the good-will

of Austria-Hungary as well as of Russia and to

 cultivate friendly relations with Roumania and

Serbia and a loyal understanding with the Porte.

A good harvest and returning prosperity offered

the best chance for a reestablishment of the na-

tional finances and the attraction of foreign capi-

tal for the development of the resources of the

country. This ministry was not easily to be

swayed in the wake of the Macedonian agita-

tors: yet it would not be harsh or hasty in its

treatment of the popular heroes, whom the Prince

himself had deposed and the peace with whom

was a true Bulgarian. The Macedonian trouble

assumed a more serious aspect in 1902. The

organizers of revolution in the Turkish vilayats

were Bulgarians. They were left active service

for the reserve in order that they might teach

Macedonian rebels to fight effectively under mili-

itary leading. The situation in Macedonia for a

year past had been bad and no augmentation of

danger. Large bodies of troops from Asia Minor

were stationed there and were reinforced in 1901, but

this military occupation of the country, where distress

was felt from natural causes as well as from political agita-

tion rendered the situation of the Christian inhabitants

more intolerable. The quiet ones often suffered

for the misdeeds of the rebels and brigands. All

the Turkish troops on the frontier could not

prevent such acts as the kidnapping of Ellen

Stone. The lawless acts of Macedonian bands

provoked only against the Mussulman inhab-

ants, who formed themselves into guerrilla

bands to take reprisals and, when caught by the

Turkish troops, they were more leniently dealt

with than the Christians. A constant stream of

Macedonian emigrants passed over the border

to Eastern Roumelia. The

Macedonian committees smuggled many thou-

sands of rifles into Turkey. Weapons and ammu-

nation were hidden in churches and other places

in towns as well as in secret nooks in the

mountains. The Bulgarian Government appealed to

the powers to force Turkey to carry out the re-

forms promised in the treaty of Berlin and

threatened to strengthen the frontier garrisons if

Turkey continued to mass troops on the bor-

der. The Russian and Austrian embassies in

Constantinople called the attention of the Porte

to the situation in Macedonia, and in conse-

quence of these representations the Sultan

appointed the Grand Vizier, the Minister of For-

eign Affairs, and the Minister of Public Instruc-

tion a commission to consider measures of re-

form. Russia had advised the Porte to proceed

with speed against disturbers, but carefully to

avoid injustice. Russia and Austria jointly

warned the Government of Sofia. The extreme

view of the revolutionary party, led by Boris

Sarafoff, was that the ransom paid for the

release of Ellen Stone to resume active

operations early in the spring. Bands of Bul-

garians entered Macedonia, levied blackmail and

committed outrages, attacked Turkish patrols,

and bribed the Cretans by paying those who condemned the proceedings of the

Macedonian committees. The Bulgarian Govern-

ment proved its loyal intentions by removing

Macedonian refugees into the interior and taking

possession of all firearms found in the frontier

districts. At the same time it reminded Russia

and Austria that the Berlin treaty assured to the

Christians of the vilayets some such degree of

self-government as the Cretans already enjoyed.

On detecting the chief agents of the Central Mac-

edonian committee in the business of forming

bands, the Government threatened to dissolve the

committee. The Macedonian committees and the

Bulgarian clergy tried to prevent the consecra-

tion, which at last took place on June 30, at

Uskub, of a Servian bishop, Monsigur Firmilian,

whose acceptance by the Porte was due to the

intervention of the Russian ambassador. The

Turkish investigating commission recommended

minor modifications of the civil administration,

building of roads, the establishment of schools,

and a reorganization of the gendarmerie so that

the revolutionary bands might better be hunted
down and the peace with the Turk be enforced. The

local authorities in the disturbed vilayets disarmed the Christians, who by law are not al-

lowed to keep weapons; nor are Mohammedans,

but in their case the Christian was allowed to

possess them. The exortion of the Turkish officials often drove impoverished rayas into the revolutionary bands which combined brigandage with patriotism.

For that reason the Austrian and Russian ambas-

dadors advised the Porte to choose a better class of officials and to pay them their salaries

regularly. When a congress of Macedonian com-

mittees was called to meet in Sofia, the Austrian

and Russian representatives advised the Bul-

garian Government to interdict it and the Turk-

ish representative called for the arrest of Boris Sarafoff, the former president of the central com-

mittee, who had been tried for the murder of the

Roumanian professor Mikhailéno, and whose

chief lieutenant, Deutcheff, was supposed to have

planted and directed the abduction of Ellen

Stone. Sarafoff was still the leading spirit in

organizing the Macedonians for revolution, while

Gen. Zontcheff, the president, and the other mem-

bers of the committee who succeeded Sarafoff

and his colleagues devised the funds they collected
to recruiting and fitting out the bands of

Bulgarians who invaded Macedonia. These bands

were much larger than the groups of 6 or 7 men

which Sarafoff founded on the Nihilism plan,

pledged to obey every order from the superior committees and to murder traitors. The Bul-

garian bands were military bodies of 100 or more,

led by professional officers. They traversed the

Turkish provinces as far south as Salonika, aided

by Macedonian peasants who kept them in-

formed of the movements of the Turkish troops.

Wherever they could not engage the troops on equal

terms they did so, in order to give their actions

the appearance of regular warfare. The gen-

darmerie and troops, on the other hand, sought
to evade encounters, and often let the bands escape

when it would have been easy to capture them, or

bribed perhaps to do so by the Bulgarians. The

Zontcheff and Sarafoff factions were bitterly hos-
tile to each other. Sarafoff and his new

committee had no object but the aggrandizement of

Bulgaria, and he put forth a program of

Macedonian autonomy instead of annexation for

Bulgaria. When the congress opened on May 10

he appeared with delegations from 45 societies,
mostly Macedonian. The Zontcheff wing, comprising societies in Bulgaria and Macedonia, excluded the Sarafoff delegates, over the vote of 15 of the delegates admitted, who declared themselves also partisans of Sarafoff, who therefore in the rupture that followed commanded the allegiance of the larger and more vigorous section of the party. The police seized documents of the central committee which proved that Gen. Zontcheff was actively fitting out bands to operate in Macedonia. He was therefore arrested on Sept. 2 and interned in his native place. Other members of the committee and ex-officers were arrested or took to flight. The fighting in Macedonia, which in other years comes to an end early in June, continued through summer and autumn till the mountains were covered with snow. There were 80,000 troops in Macedonia, most of them quartered on the people, a serious burden in addition to the taxes, which took a fifth of their income. Neither the Bulgarian bands nor the Macedonian secret societies gave much trouble to the authorities who in Monastir restored a tolerable degree of order and made a show of governing in a civilized manner under Gen. William, as an enlightened administrator, but unable to restrain the corrupt practices of his subordinates. In Uskub and wherever the Albanians predominated the semblance of an insurrection kept up by the Bulgarian bands inflamed the arrogance of the Albanians, which the Turks have never in the course of ages attempted to subdue, and provoked the Serbs to action by the tactlessness that made the condition of the Christians unbearable.

A consular convention between Bulgaria and Austria-Hungary was concluded and ratified by the Sobranje. The narrow and uncertain majority supporting the Government in the Sobranje was unsatisfactory to the ministers, who seized an opportunity to dissolve the Chamber again. The elections, which took place in September, were more easily influenced by the Government than the last ones. The heterogeneous Sobranje gave 15 votes to one in which the Government party had an overwhelming majority.

BUREAU OF AMERICAN REPUBLICS, INTERNATIONAL. This is the representative organization in Washington, D. C., of an agreement entered into by the independent republics of North and South America for the purpose of bringing about closer trade relations between them, to disseminate the information by the publication of their tariff laws and all other laws and provisions that may be enacted by them relating to trade and navigation, and for the collection and publication of useful statistics and general information of interest to all.

The organization was the one practical outcome of the first International Conference, commonly known as the Pan-American Congress, held in Washington in 1889-'90. Article II of the recommendations adopted by that conference on this subject says:

"The International union shall be represented by a bureau to be established in the city of Washington under the supervision of the Secretary of the United States, and to be charged with the care of all the transactions and publications, and with all the correspondence pertaining to the international union."

It was also stipulated that this bureau should be the Commercial Bureau of the American Republics, and that its organ should be a publication to be entitled the Bulletin of the Commercial Bureau of the American Republics. The scope and field of this publication was explained, and it was made of the probable expense of maintaining the bureau, which was not to exceed $30,000 a year. Each republic was required to pay its share of this expense in proportion to its population, and a schedule of the first year's proportionate payment of each country was embodied in the report of the committee presenting the project to the conference. This proposed assessment of each country forms the following table:

<table>
<thead>
<tr>
<th>Republic</th>
<th>Annual Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentine Republic</td>
<td>$1,402 50</td>
</tr>
<tr>
<td>Bolivia</td>
<td>450 00</td>
</tr>
<tr>
<td>Brazil</td>
<td>800 00</td>
</tr>
<tr>
<td>Chile</td>
<td>1,280 50</td>
</tr>
<tr>
<td>Colombia</td>
<td>75 00</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>575 00</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1,250 00</td>
</tr>
<tr>
<td>Haiti</td>
<td>1,080 50</td>
</tr>
<tr>
<td>Honduras</td>
<td>181 25</td>
</tr>
<tr>
<td>Mexico</td>
<td>8,500 00</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>197 50</td>
</tr>
<tr>
<td>Paraguay</td>
<td>90 75</td>
</tr>
<tr>
<td>Peru</td>
<td>875 00</td>
</tr>
<tr>
<td>Salvador</td>
<td>187 00</td>
</tr>
</tbody>
</table>

In order that no delay should occur in organizing the bureau, the Government of the United States was asked to advance the expenses for 1893. The State Department at once took up the project, and the bureau was organized in Washington, practically under the direction of the Secretary of State and White as director. Regardless of the amount of work accomplished and the information disseminated through its publications, the bureau led a precarious existence, difficulty of obtaining information and the cooperation of the many countries that had entered into the agreement. The first year's report shows that 28 publications were issued besides the regular bulletin, these including handbooks of the republics, patent and trade-mark laws, import duties, and commercial directories. The commercial directories were intended for the use of manufacturers and merchants in forwarding catalogues and circulars and opening correspondence, and the demand for them, especially in the United States, demonstrated the eagerness of the part of those for whom they were intended to introduce their wares into markets hitherto practically unknown or unsought. A perplexing question was at once pressed upon the attention of the executive officer of the bureau owing to the demand for its publications, the demand increasing so rapidly as to make compliance impossible because of the limited edition. This led to the issuance of a circular in October, 1893, giving a list of the publications that had not been exhausted, with a price affixed, for which the copies could be secured by application to the Government Printing-Office. This list contained 39 publications obtainable, out of 69 that had been published by the bureau since its organization.

A resolution adopted by the International Conference recommended the adoption of a common nomenclature which should designate in alphabetical order, with equivalent terms in English, Spanish, and Portuguese, the commodities on which import duties are levied by all the American nations for the purpose of levying customs imports, and also to be used in shipping manifests, consular invoices, entries, clearance petitions, and other customs papers. This work was turned over to the bureau and conducted under its direction by authority of the acts of Congress of July 14, 1890, and July 16, 1892. The work was advanced as rapidly as possible, but it entailed a great amount of labor, and though the two appropriations of $10,000 each were exhausted and seven years elapsed before the work was completed, when the schedule was published it was found to contain many errors and inaccuracies, owing chiefly to
the use of local names in some of the countries that are entirely unknown in other countries in which the same language is spoken; and, as a consequence, it was unnecessary for the nations that entered into the agreement to form the union, the Argentine Republic notified the State Department in a communication through its minister of its withdrawal under the terms of Article 8 of the treaty, which provided that the Argentine Republic had neither ratified the recommendation containing the union nor declared its intention of entering it, but in March, 1892, the Dominican government was in favor of entering the union and authorized its representatives to pay the amount of its annual assessment. The annual report of the director of the bureau for 1893 shows that the following republics, Bolivia, Nicaragua, Paraguay, and Peru had not paid their quotas, though nearly all of them promised to do so. The existence of the bureau gradually became so uncertain that it was finally decided by the State Department to make a determined attempt at reorganization, and an invitation was extended to the accredited representatives of the Latin-American republics to this country, by the Secretary of State, representing the union, and the representatives of all the nations were represented with the exception of the Argentine Republic, Bolivia, Paraguay, the Dominican Republic, and Haiti. The result of this meeting was that the bureau was reorganized on the basis of the original agreement, and its scope was widened. An office was opened in New York for soliciting business, as it was decided to publish advertisements of reputable firms in the Monthly Bulletin, and an agent was employed for that purpose. This action, however, soon brought forth a vigorous protest from the publishers of export papers, who declared that the soliciting and publishing of advertising was not within the province of an official organ of the Government, and that this interfered with their legitimate business. The bureau was represented by the director of the bureau favoring the advertising project, but it was subsequently shown that with the increased business the expenses of the bureau had increased to such an extent that it was necessary to call for an appropriation of $41,972 to meet the deficiency for six months ending June 30, 1897, which appropriation was made by the United States. At a meeting of the Executive Board it was shown that of the $36,000 in advertising contracts made, 40 per cent. was required to be paid to the solicitor, who demurred to his percentage before the bills against the advertisers could be collected, which required an additional outlay of capital by the bureau, and as a consequence it was decided to terminate all existing contracts for advertising, subscriptions to publications of the bureau upon commissions, and to discontinue the New York office. This action was taken at a meeting of the bureau at New York on Feb. 28, 1898, the previous year had seen the completion of the code of commercial nomenclature in the three languages proposed, and also that of a commercial directory that cost $5,000. Through the good offices of the representatives of the Latin-American countries in the United States and ministers accredited by the United States, the bureau obtained the privilege of sending its mail matter free of postage from all the governments of Costa Rica, Ecuador, Guatemala, Haiti, Honduras, Nicaragua, and Venezuela through their respective territories. Bolivia was the only country that had hitherto granted these privileges. Soon afterward the Argentine Republic, which had withdrawn from the union, announced its intention to take the formal steps necessary to enter it, and this announcement was followed by that of Chile. Colombia and Paraguay, although they had not formally withdrawn from the union, had failed to pay their annual assessments, but now they paid the indebtedness, thus showing their disposition to become active members of the union. This was followed by Bolivia and Peru granting postal franchise privileges, which now made it possible for the republics granting this privilege, including our islands and Canada.

The second International Conference, held in Mexico in 1901-03, fully recognized the importance of the bureau to all the republics; and the Mexican Government assigned two rooms adjoining the conference hall for its use and the installation of a reference library. With the view of rendering the bureau still more useful to all the countries represented in its administration and making it still more valuable in establishing and maintaining closer relations between them, the conference adopted a plan of reorganization that is intended to increase the efficiency of the bureau and enable it to discharge its duties to better advantage. One of the aims in the adoption of the plan was that the management of the bureau more truly international. The new regulations provide that the bureau shall be under the management of a governing board comprising the Secretary of State of the United States, who is to be its chairman, and the diplomatic representatives in Washington of all the other governments represented in the bureau. This governing board is required to meet once a month, excepting in June, July, and August of each year, and may hold special meetings any time on the call of the chairman, or on the request of any two members. The merit system of filling places is adopted, and it is provided that all applicants shall be examined to determine their fitness for the places for which they apply. It is required that an itemized budget be prepared annually, estimating the expenses of the bureau for the succeeding year, and this budget is to be transmitted to each government, together with a statement of the amount to be paid by such government on the basis of the existing apportionment of the expenses, and each government is required to transmit the amount of its contribution to the Secretary of State of the United States six months in advance. The bureau is given authority to correspond, through the diplomatic representatives of the several governments in
WASHINGTON, with the executive departments of those governments, and is required to furnish such information as it may possess, or can obtain, to any of the republics requesting it. Each of the republics agrees to facilitate the gathering of information by the bureau; to send to it promptly two copies of each of its official publications for preservation in its library and to supply such information as may be requested by the director. Provision is made for the continuation of the publication of the Monthly Bulletin in English, Spanish, Portuguese, and French; and for the publication of such maps, topographical and geographical charts, and other publications as the governing board may direct. All the publications of the bureau are to be kept free from advertising as soon as the existing contracts expire, and said publications are to be considered public documents and are to be carried in the mails of all the republics. The bureau is made custodian of the archives of the International American Conferences, and is especially charged with the performance of the duties imposed upon it by the conference. The specific duties thus imposed upon the bureau at the last conference were:

The carrying out of the provisions of the resolution looking to the collection, compilation, and dissemination of more complete statistical data and information regarding the resources of the several republics; the fixing of the date for, and the performance of the general executive work of the sanitary convention to be called in accordance with the resolution adopted on the subject of quarantine and sanitation; the performance of the general executive work of the Customs Congress to meet in the city of New York, and also the Coffee Congress, which met in New York Oct. 1, 1902, and adjourned Oct. 23rd (see COFFEE), and the keeping of the accounts of the American International Archeological Commission. In addition to these duties specifically prescribed by the conference, it was recommended that the bureau should collect, compile, and keep on file, and should publish to such extent as may be practicable, information regarding commercial laws; the banks of the American republics, their capital and surplus; the internal laws of the several countries, changes in said laws, patents granted, and decisions of the courts of the several countries in patent litigation; complete monthly statistics of imports and exports of the several countries; the arrival and departure of vessels from the ports of the American republics, with their tonnage; the length, stated in miles and kilometers, of railways, streets, canals, telegraph and telephone lines in the several countries, and complete data as to the new lines projected or being built; information regarding new public works of all kinds; the most complete vital statistics of each of the republics and of its important cities that can be obtained; and such other information as the director, with the approval of the governing board, may determine. It is stipulated that the library established by the bureau be known as the Columbus Memorial Library. This last provision was made at the suggestion of Mr. Calvo, delegate to the conference from Costa Rica, who said that at the previous conference a recommendation to that effect had been unanimously approved, but no practical steps had been taken to carry out the idea. He further said that the chief aim in establishing the library, which was to be practically only an amplification of the existing one in the bureau, was to create a valuable collection of Latin-American books of commercial and statistical information. In the director's report for the fiscal year 1901 it was stated that the existing library comprised of 8,948 volumes. In the year 1,456 books and pamphlets were received, of which 901 were gifts. About 2,000 periodicals were received, including daily and weekly newspapers.

The reorganization of the bureau was immediately set up after the adjournment of the International Conference at Mexico in the early part of the year, in conformity with the resolutions adopted. Mr. W. W. Rockhill continues in office as the director, and Mr. Nicolas Veloz Goto was elected by the governing board to fill the place of Mr. Guzman; Dr. José Ignacio Rodriguez, long connected with the bureau as chief translator, was confirmed in his office, and received the additional honor of the office of Chief of the Columbus Memorial Library; and Mr. W. C. Fox, who represented the bureau as acting director at the conference in the city of Mexico, was confirmed in his office of chief stenographer, and was made editor of the Monthly Bulletin.

CALIFORNIA. (See under United States.)

CANADA. DOMINION OF, a federal union of British provinces in North America; area, not including the far Northern Franklin Territory, 3,653,946 square miles; population, 5,389,262.

Government and Politics.—At the beginning of 1902 the Dominion Government was composed of Sir Wilfrid Laurier, Premier and President of the King's Privy Council for Canada; Sir R. J. Cartwright, Minister of Trade and Commerce; R. W. Scott, Secretary of State; David Mills, Minister of Justice; Frederick William Borden, Minister of Militia and Defence; William Mulock, Postmaster-General; Sydney Arthur Fisher, Minister of Agriculture; Joseph Israel Tarte, Minister of Public Works; William Stevens Fielding, Minister of Finance; Andrew George Blair, Minister of Railways and Canals; Clifford Sifton, Minister of the Interior and Superintendent-General of Indian Affairs; William Paterson, Minister of Customs; Michel Esdras Bernier, Minister of Inland Revenue; Richard Reid Dobell, without portfolio; and James Sutherland, without portfolio.

Early in the year several changes occurred in the Government. On Feb. 8 it was announced that the Hon. Mr. Mills had been appointed to the Supreme Court of Canada; that the Hon.
Charles Fitzpatrick was to succeed him as Minister of Marine and Fisheries. After the retirement of Mr. Carroll, K. C. M. P., was to replace the last-mentioned as Solicitor-General, without a seat in the Cabinet; and that the Hon. William Templeman, of British Columbia, was to become a member of the Government without portfolio. Mr. Fitzpatrick was born in on Feb. 22. The Hon. James Sutherland, M. P., who had been a member of the Government since 1894, without portfolio, had already been sworn in as Minister of Marine and Fisheries on Jan. 16, in place of Sir Louis Davies, who had gone to the Supreme Court in the preceding December.

The most important political event of the year, however, was the retirement of the Hon. J. Israel Tarte from the Government. As he represented a constituency by reason of his position and had been a member of the Government for some time, he was very popular with his constituents and had become more so as the time of Sir Wilfrid Laurier's return from England drew near. On Oct. 20—two days after the Premier's return—Mr. Tarte made a speech in the House of Commons, in which he had been connected since 1892. My views on the tariff and the Union are well known to you. I have on several occasions stated them publicly in your presence, and discussed them often privately with you. Entertaining the opinion that the interests of the Canadian people make it our duty to revise the tariff of 1897, with the view of giving a more adequate protection to our industries, to our farming community, and our working men, I can not possibly remain silent. I prefer my freedom of action and speech under the circumstances, even to the one that has been offered to me, and I am determined to make the tariff a subject for transit and my opinions, and others papers will be laid before you.

Sir Wilfrid Laurier, in his reply, accepted the resignation upon constitutional grounds and for the following expressed reasons: the country demanded without delay an increase of the customs duties, the first thing for you to do as a member of the Government, before addressing your views to the country, would have been to place them before your colleagues, with the object of obtaining that unanimous action of the cabinet which is the very foundation of responsible Government. If you had not been able to obtain from your colleagues their consent to the course you recommended, you would have been obliged then either to accept their views or find your colleagues inimical with them, and then for the first time you would have been free to place your views before the public. Such was the very simple course which was binding upon you; but to remain a member of the Government, at the same time to advocate a policy which had not yet been adopted by the Government, was an impediment to the proper working of our constitution and implied a disregard for that loyalty which all those who are members of the same administration owe to each other, and have a right to expect from each other.

Mr. Laurier, in his last editorial charge of La Patrie, a French-Canadian Liberal paper in Montreal, and announced that he would entertain an independent attitude toward the Government. After the retirement of Mr. Borden, M. P., formerly mayor of Montreal, was appointed Minister of Marine and Fisheries, and the Hon. Mr. Sutherland was transferred to Mr. Tarte's late department Nov. 12. Meanwhile R. L. Borden, M. P., the Conservative leader, had been making a tour of Manitoba, the Northwest Territories, and British Columbia, accompanied by Messrs. E. F. Clarke, J. Clancy, R. Blain, D. Henderson, and other Conservative members of Parliament. A great many speeches were made, and the ground was taken that Mr. Tarte was coming over to Conservative policy and fiscal principles. Mr. Borden left Winnipeg for his home in Nova Scotia on Oct. 21, and before doing so issued a final appeal to the people of the west to support the Government, in its attack on the monopolies and other grievances which he believed to be the cause of the present depression.

"Application having been made by the Canadian Pacific Railway to the Department of Railways and Canals for an increase of its capital, to meet the demand for additional rolling-stock and other improved facilities for handling the growing traffic, my ministers availed themselves of the opportunity to stipulate that the long-pending question of the power of the Governor in Council to regulate the tolls of the company should be submitted to the courts for a judicial decision. The corresponding vote will be laid before you.

"The inventor, Mr. Marconi, having met unexpected obstacles to the carrying on of his experiments in wireless telegraphy in a sister colony, my ministers deemed it expedient to invite him to continue his operations on the coast of Nova Scotia, and they availed themselves of his presence in Canada to enter into negotiations resulting in an arrangement through which, should the project prove as successful as is hoped for, the Government and people of Canada will enjoy the benefits of the invention on very favorable terms, including receipts for transit of messages very much below those now existing.

"I am pleased to inform you that the display made by Canada of her products at the international exhibitions held in the United States last year has attracted much attention, and has already resulted in many inquiries and orders for our goods. I may also congratulate you on the satisfactory condition of the revenue, and on the steady and continuous expansion of the general business of the country as evidenced by the increased volume of exports and imports. With the view of still further facilitating and developing our trade with other countries, it will probably be found expedient to increase the number of our commercial agencies, and Parliament will be asked to consider the desirability of making additional provision for that purpose.

"I have also pleasure in informing you that the governments of Australia and New Zealand have accepted an invitation from my Government to attend a conference in London next June for the consideration of trade, transportation, cable, and other matters of mutual concern and interest. It is hoped that the meeting may lead to an extension of Canadian trade with those important portions of His Majesty's dominions. I have further to advise you that my Government has decided that the inquiry to be made, has reached the conclusion that the establishment of direct steam-
ship service with South Africa would enable Canada to secure in that country a profitable market for her varied products, and, to that end, will endeavor to arrange for such a service." 

The session was comparatively quiet. The principal events were the act authorizing the Canadian Pacific Railway to increase its capital stock considerably, the legislation enabling Manitoba farmers to erect free grain warehouses at railway-stations, and the granting of representation to the Yukon Territory. The following were the chief acts passed and duly assented to by the Governor-General at the prorogation of the houses on May 15:

To incorporate the Indian River Railway Company.
To incorporate the Sovereign Life Assurance Company of Canada.
To incorporate the Nipissing and Ottawa Railway Company.
To incorporate the St. Lawrence and Northern Railway Company.
To incorporate the Strait of Canso Bridge Company.
To incorporate the Crown Bank of Canada.
To incorporate the Knapp Tubular Steamship Company.
To incorporate the Canadian Manufacturers' Association.
To incorporate the Pacific Northern and Omenica Railway Company.
To amend the bills of exchange act.
Further to amend the Canada evidence act, 1893.
Further to amend the acts respecting the Northwest Territories.
Further to amend the Yukon Territory act and the acts in amendment thereof.
To incorporate the Toronto and Niagara Power Company.
To amend chapter xli of the Statutes of 1901 respecting the administration of justice in Yukon Territory.
To amend the land titles act, 1894.
To amend the Chinese immigration act, 1900.
To incorporate the Intercolonial Railway Company.
To incorporate the Yukon Pacific Railway Company.
To incorporate the Manitoba and Keewatin Railway Company.
To incorporate the Canada Eastern Railway Company.
To incorporate the Nepigon Railway Company.
To incorporate the Canadian Central Railway Company.
To incorporate the North Shore Power, Railway, and Navigation Company.
To provide for the establishment of a Medical Council in Canada.
To amend the immigration act.
To amend the fruit marks act, 1901.
To incorporate the Securities Bank of Canada.
To incorporate the Metropolitan Bank.
To incorporate the Union Life Assurance Company.
To amend the Manitoba grain act, 1900.
Respecting the coasting-trade of Canada.
To amend the customs tariff, 1897.
To incorporate the Canadian Northern Telegraph Company.
Respecting the incorporation of joint-stock companies by letters patent.

The budget of 1902.—On March 17 the Minister of Finance presented his sixth annual statement to the House of Commons. He had no changes in the tariff to announce, and he said that machinery and structural iron for beet-sugar factories would remain free of duty for another year from April 1. He estimated the revenue for the fiscal year ending June 30, at $56,800,000, the expenditure at $51,000,000, and the addition to the debt of the Dominion at about $6,000,000. He was able to say that his expression of belief in his last budget speech that the country had about reached the crest of the wave of business prosperity had been proved incorrect by the activities and progress of the past year. The revenue had been greater than his estimate, and larger than that of the years 1899–1901, as the following table showed:

<table>
<thead>
<tr>
<th>Sources</th>
<th>Year ending June 30, 1900</th>
<th>Year ending June 30, 1901</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs</td>
<td>$38,425,894</td>
<td>$38,425,894</td>
<td>$1,135</td>
</tr>
<tr>
<td>Excise</td>
<td>10,210,265</td>
<td>10,210,265</td>
<td>0</td>
</tr>
<tr>
<td>Post-office</td>
<td>3,300,590</td>
<td>3,441,004</td>
<td>140,419</td>
</tr>
<tr>
<td>Railways</td>
<td>5,318,361</td>
<td>5,318,361</td>
<td>0</td>
</tr>
<tr>
<td>Lands</td>
<td>1,731,791</td>
<td>1,731,791</td>
<td>0</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3,068,945</td>
<td>3,068,945</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>$52,514,092</td>
<td>$52,514,092</td>
<td>$1,484,704</td>
</tr>
</tbody>
</table>

Mr. Fielding drew special attention to the post-office returns. There was an increased revenue of $235,969, and the total receipts of the department were $3,441,504. But the expenditure was $3,930,446. He said, however, that the deficits had once been as high as $500,000, and that in the meantime Mr. Mulock had not only reduced the amount, but had cut the British postage in two and reduced the Canadian postage one-third. In railways he described the condition as not worthy. From total receipts of $3,140,678 in 1896, when the Laurier Government took office, the amount had risen in 1901 to $5,213,381. The total expenditure in consolidated fund account, or permanent expense account, was $46,806,367, against $42,975,279 in the preceding year. In legislation there had been an increase of $342,424; in arts, agriculture, and statistics—which included the census—the increase was $235,645; in militia there was an increase of $215,495; in railways and canals—chiefly the working expenses of the line of the Intercolonial Railway—of $3,138,060; in public works the increase was $1,096,742; in the Government of the Northwest Territories, $150,177; and in the post-office, $173,431. Adding to this consolidated fund account the money of the Canada government, the total was $57,962,860, against $52,217,466 in 1900. For railways on capital account there was an expenditure in 1901 of $3,014,010; for canals, of $2,390,669; for public works, of $1,006,983; for Dominion lands, of $260,060; for militia, of $1,35,884; for the Canadian Pacific Railway, of $8,978. The total was $7,295,488, an increase altogether of $229,645. The net public debt was described by the minister as having been $269,480,000 on June 30, 1901, against $505,493,806 in the previous years. In the five preceding years, he added, the increase had been $9,985,750, an average of $1,997,514, compared with an average of $6,363,075 in the preceding eighteen years. The exact increase for 1900–01 was $2,986,196. The statements of the minister were variously criticized, and on May 13 Mr. Borden, the Opposition leader, introduced the following motion:

"That the total expenditure during each fiscal year from 1893 to 1901, both inclusive, was as follows: In 1893, $42,272,190; in 1894, $43,068,834; in 1895, $42,872,338; in 1896, $41,762,383; in 1897, $42,972,756; in 1898, $43,343,281; in 1899, $51,542,683; in 1900, $62,717,467;"
in 1901, $37,962,968. That the Finance Minister estimates that the total expenditure for the fiscal year ending June 30, 1902, will be $65,250,000; that the annual expenditure on both consolidated revenue and capital account has increased between 1897 and 1901 by no less a sum than $13,010,110; that during the period above mentioned the revenues of the country have been unusually large, and the Government claims a total net surplus of $19,743,267.09, but no portion thereof has been applied in reduction of the public debt, which, with the addition estimated by the Finance Minister for the current fiscal year, will have increased from $528,478,432.77 in 1890 to $774,480,000 in 1902, an increase of more than $186,000,000; that the Minister of Finance estimates that the total revenue for the year ending June 30, 1902, will be $56,900,000; that notwithstanding this very large revenue the Minister of Finance estimates that the public debt will be increased during the current year about $8,600,000; that the House desires to place on record the opinion that the expenditure for the year ending June 30, 1902, and the proposed expenditure for the year ending June 30, 1903, are excessive. The debate of Lords on the Government, with the exceptionally large revenues at its command, has not only failed to reduce, but has largely increased the public debt and has incurred capital expenditure for which the country does not receive and can not expect an adequate return.

The motion was lost on a party division of 84 to 41.

The supplementary estimates for the fiscal year ending June 30 were presented to Parliament on May 6. The total was $5,739,301. Of this amount, $3,396,201 was chargeable to consolidated fund and $2,353,100 to capital account. This made the main estimates $50,100,939 for the year beginning in July, 1902. There were $10,000 for experimental farms; $175,000 for the St. Louis Exhibition; $20,000 for the Cork and Wolverhampton Exhibition; $50,000 for salaries at Esquimalt; $300,000 for arms and ammunition; $150,000 for purchase and construction of the coronation military contingent; $315,000 for the Halifax garrison; $1,315,000 for the intercolonial and $36,000 for Yukon public buildings; for the Northwest Territories $340,000; and for the Yukon Government $384,500.

Canada at the Coronation.—During the greater part of the year the subject most universally in the public mind was the coronation of the Emperor of India. Bound up with it also were the visits of Canadian premiers and leaders to the motherland; the conferences held there upon many important subjects; and the hospitality extended to Canadians. The royal invitation extended to the Premier of Canada made him the guest of the British nation during a special period, with headquarters at the Hotel Cecil, in company with the Premiers of Australia, New Zealand, Cape Colony, Natal, and Newfoundland, and certain appointed representatives of the Crown colonies and the Indian Empire. The premiers of all the provinces of Canada were also invited to be present at the coronation, though not as guests at the expense of the nation. In accordance with the King’s desire to make the coronation an imperial event, each part of the empire was asked to send a contingent of troops. Canada sent 656 soldiers, chiefly veterans of the war, under the command of Lieut.-Col. R. E. W. Turner, V.C., D. S. O., of Quebec, and the infantry under Lieut.-Col. H. M. Pelatt, of Toronto.

The Coronation Conference.—In a communication addressed to the Governor-General of Canada, on Dec. 27, 1901, Mr. Chamberlain conveyed a formal intimation of the coronation having been fixed for June 29 following, and an expression of the King’s desire that the Premier of Canada should be present and be a guest of the Government, together with his wife, for a fortnight from the time of arrival. On Jan. 23, 1902, the Colonial Secretary cabled Lord Minto as follows: “It is proposed by his Majesty’s Government to take advantage of the presence of the premiers at the coronation to discuss with them the questions of political relations between the mother country and the colonies, imperial defense, commercial relations of the empire, and other matters of general interest. Should your ministers desire to submit definite proposals or resolutions on any of the above questions, or should they wish to suggest any further subject for discussion, I should be glad to be informed of the purport by cable, in order that the other Governments may be communicated with.” The period of three weeks after the coronation was suggested as that during which the premiers should remain as his Majesty’s guests, and Lord Minto replied, accepting the invitation for Sir Wilfrid and Lady Laurier, and dealing with matters of policy as follows: “Referring to the several questions mentioned in your dispatch of Jan. 23, the only one which, in the opinion of my ministers, gives promise of useful discussion, is that of the commercial relations now existing between the mother country and the great self-governing colonies, and particularly Canada, which are regarded by my ministers as entirely satisfactory, with the exception of a few minor details; and they do not anticipate that in the varying conditions of the colonies there can be any scheme of defense applicable to all.”

This correspondence was laid before the Canadian House of Commons on March 11, and Mr. Borden, leader of the Conservative Opposition, brought up the subject in the House on May 12. He read the correspondence between Mr. Chamberlain and Lord Minto as showing no reason for any apprehensions or uneasiness about the action of the Government in declining to discuss imperial defense; declared that of the three possible features before the country—indemnity, annexation, or present policy—he preferred the last, and believed that it would be the permanent one; and pointed to advantages which Canada had long received from its protection by the British fleets that of the empire. He then, at considerable length, discussed the existing preferential tariff and the various proposals for preferential trade in its wider sense; quoted the Premier’s statement in the session of 1901 that preferential trade throughout the empire could not be discussed without premising the abolition of the protective conference, and could have no useful result under present condition of government in the Dominion. He concluded by asking for an authoritative statement as to the policy of the Government in connection with the coming conference. "We want to know whether the Government, while retaining for Canada full control of all her public money and her system of defense, is prepared to discuss with the imperial authorities a system of imperial defense. We want to know whether the Prime Minister proposes, as he did in 1897, and as the Minister of Agriculture did in 1901, to tell the Government and the great self-governing Empire that Canada desires no preference in the British markets. We want to know whether the Government are yet fully seized of the fact that
the British Government have adopted a policy which, in the view of the right honorable gentleman and his colleagues, has repeatedly declared during the last five or six years was absolutely impossible of adoption by the Government in the near future."

In his reply Sir Wilfrid Laurier deprecated the idea of any discourtesy, and pointed out that the subjects referred to would all be discussed apart from his Government's expression of opinion as to the value of such discussion. As to imperial defense especially, both he and his colleagues felt that no useful purpose could be served by dilating on what part Canada is prepared to take in her own defense, what share of the burden must fall upon us as being responsible for the safety of the land in an Imperial war and to which we are pledged as a dominion. Our allegiance, in which all our hopes and aspirations are centered, certainly we are always prepared to discuss that subject. Nor do I believe that we need any particular point that subject, or that our attention should be specially called to it." But this was not imperial defense as now much much more. "There is a school abroad, there is a school in England and in Canada, a school which has wandered to the floor of this Parliament, which wants to bring Canada into the vortex of militarism, which is the curse and the bane of Europe. I am not prepared to indulge this policy.

The conference, as finally constituted, was composed of the Premiers of Canada, Australia, New Zealand, Capet Colony, and Natal, with Mr. Chamberlain and certain appointed representatives of colonies still under Colonial Office control. The arrangements made for submission to the various colonial parliaments included plans for correspondence between the several countries and the German Empire, as well as the repayment of Indian debts, and the establishment of a common market for the United Kingdom. The Canadian ministers were also unable to agree to proposals of the Canadian Government, and while highly appreciating the good feeling manifested by Canada in the granting of preferential treatment, did not think that any material advantages to the trade of the United Kingdom were as great as the Canadian ministers claimed. He further said that the change desired by Canada would be an important departure from the established fiscal policy of the United Kingdom, and that if the proposal could be entertained at all, as to which he was not prepared to commit himself, it would be in the interests of Canada, to offer some material tariff concessions beyond those which she has already voluntarily given. The Canadian ministers pointed out that the Canadian tariff was prohibitive, that large quantities of goods were imported, and that a great proportion of these came from foreign countries. In any lines in which there was a reasonable probability of goods being manufactured in Great Britain, it might be possible to readjust duties as to give an additional advantage to the British manufacturer, and thus turn over a larger proportion of trade to the profits of which now go to foreign countries. This readjustment might be brought about in any or all of the following ways: 1. In some cases by the reduction of duties now imposed on British goods, where such reduction might be made without injustice to any Canadian industry. 2. By the transfer of some articles from the free list to the list subject to such rates as would give substantial preference to the British manufacturer, instead of leaving him, as at present, on even terms with the foreign competitor as respects such goods. 3. By abolishing the duty as respects foreign goods on some articles now on the free list, while allowing them to continue free as respects British imports. 4. In some cases by the reduction of duties now imposed on the foreign articles, thus increasing the amount of the preference on British goods. Such increase on foreign articles could, however, only be justified where the market could be supplied by the British manufacturer at the prevalent rates of duty. The Canadian ministers said that if they could be assured that the Imperial Government would accept the principle of preferential trade generally, and particularly grant to the food products of Canada in the United Kingdom exemption from duties now levied, they, the Canadian ministers, would be prepared to carry on the discussion on the lines above mentioned and endeavor to give to the British manufacturer an increased advantage over his foreign competitor in the markets of Canada."

The Alaska Boundary.—This question was fitly discussed in the press and by publicists in 1902, although no serious developments arose. Speaking in the House of Commons on Feb. 11, 1901, Sir Wilfrid Laurier has declared that the Americans have "taken such an attitude that it seems almost impossible to reconcile the two opposing views." He hoped, however, that if an honorable settlement could not be reached an honorable compromise might still be effected. In the meantime, and in view of the further complications that might arise at any moment from fresh discoveries of mineral and other products on the provisional boundary which will serve as a boundary so long as the question remains unsettled, and that provisional boundary has been settled by the discovery of the country and the discoveries of the Ameri-

answer to an inquiry from Mr. R. L. Borden, the Premier said that the agreement was "in the nature of a compromise between the respective positions taken by the two parties." On April 16, in the course of a discussion upon Yukon matters in committee, Mr. Sifton, Minister of the Interior, made the following statement regarding international arrangements and the situation at the moment: "As to the portion of the territory which lies contiguous to Alaska, there is a provisional boundary-line agreed to between the two governments, and that line, wherever necessary, has been laid down upon the ground by commissioners appointed by the parties. Our commissioner and the commissioner of the United States went for Canada. The boundary-line at the only place practically necessary—that is, across the Dalton trail to Pyramid Harbor. Under the terms of the provisional arrangement, this boundary line, which was also used by travelers before the railway was opened, is considered to be the provi-
sional boundary-line. So we have at all the
passes where travel is possible, a fixed provi-
sional boundary-line, and there can be no diffi-
culty about administrating it. The Prime
Minister, on May 6, in connection with a question asked by Mr. E. G. Prior, said that
the point of difference between the Ameri-
can and the Canadian governments was, as to
where the Portland channel referred to in the
Anglo-Russian treaty really is. "They want to
make it run up Observatory inlet, and then to
the west, making out that Observatory inlet is
only a small inlet running into the interior. We,
the other hand, contend that Portland chan-
nel is as it is described on the map of Vancouver,
on which the treaty of 1855 seems to have been
based, namely, all that channel of water which
runs west of Pearse island."

The Fourth Census.—Details of the Dome-
inion census taken in 1901, under the auspices of
Archibald Blue and Thomas Cote, were pub-
lished in 1902. The population of Canada, which
numbered 3,935,024 in 1871, 4,294,810 in 1881, and
4,533,961 in 1891, was announced as being 5,309,
362 in 1901. The only province that showed a
decrease was Prince Edward Island—from 109,
078 to 109,259. The largest numerical increase
was in Ontario, where it increased from 2,182,335 to
1,484,906; the largest proportional increase was
in the Northwest Territories and Yukon, which
had grown from 98,967 to 211,649. Ontario in-
creased 5,150,716, or 230,665 more than Quebec;
Nova Scotia, from 450,396 to 459,574; New
Brunswick, from 321,263 to 331,129. Manitoba
grew from 152,056 to 234,947, and British Colum-
bia from 44,035 to 177,087. The increase in city
and town population was marked all over the
country. In 1891 the rural districts had 3,290,
861 inhabitants, and in 1901 3,349,065, while
the urban growth was from 1,537,066 to 2,504,601.
It was distributed as follows:

<table>
<thead>
<tr>
<th>PROVINCES</th>
<th>RURAL</th>
<th>URBAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>1901</td>
<td>1891</td>
</tr>
<tr>
<td>Manitoba</td>
<td>111,408</td>
<td>154,714</td>
</tr>
<tr>
<td>Ontario</td>
<td>2,299,026</td>
<td>2,547,190</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>261,939</td>
<td>283,926</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>278,428</td>
<td>300,191</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>116,039</td>
<td>146,953</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>457,396</td>
<td>497,677</td>
</tr>
<tr>
<td>British Columbia</td>
<td>60,340</td>
<td>87,055</td>
</tr>
<tr>
<td>Territories</td>
<td>93,987</td>
<td>164,834</td>
</tr>
</tbody>
</table>

According to religions or sects there were 142
divisions recorded and classified. Only 5 had
more than 100,000. The population showed a
total of 2,493,417 males in 1891 and 2,372,078
females, while in 1901 there were 2,751,473 males
and 2,619,578 females.

Immigration.—The immigration arrivals in
Canada for the fiscal year ending June 30, 1902,
were 26,338 from the United States; 17,259 from
the British Isles; 6,570 from Austria, including
Galicia; 3,759 from Russia and Finland; 2,451
from Germany; 1,046 from Hungary; 654 from
France and Belgium; from miscellaneous nations
7,902; and constituted a total of 67,379. The figures
showed an increase of 18,230 over the previous year, made up as fol-

<table>
<thead>
<tr>
<th>CONTINENT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>4,380</td>
</tr>
<tr>
<td>North America</td>
<td>2,478</td>
</tr>
<tr>
<td>South America</td>
<td>3,655</td>
</tr>
<tr>
<td>Asia</td>
<td>1,081</td>
</tr>
<tr>
<td>Africa</td>
<td>241</td>
</tr>
<tr>
<td>Oceania</td>
<td>416</td>
</tr>
</tbody>
</table>

Military and Defense.—According to figures
furnished by the Minister of Militia and Defense
for his annual report dated March 12, 1902, and
supplied by Col. Lord Aylmer, adjutant-general,
the regimental establishment of the active milit-
ary Dec. 31, 1901, was 98,000 officers, non-com-
missioned officers, and men; the number ordered
to drill during the year was 35,437; and the
number employed or partly trained was
30,392. The number of officers and men par-
ticipating in the royal review by the Duke of
Cornwall and York at Quebec was 3,546; at
Toronto, 10,981; at Halifax, 3,766. The total
appropriation for militia services in the year end-
ing June 30, 1901, was $3,097,752, with pensions
for the Northwest rebellion, the Fenian raids, and
the troubles of 1877 amounting to $21,125 addi-
tional. The total revenue was $85,470, which in-
cluded $22,035 from the Royal Military College
at Kingston.

Conference of Boards of Trade.—This was
held in the Parliament buildings at Toronto on
June 4-6. It met under the auspices and initia-
tive of the Toronto Board of Trade and its offi-
cers—Mr. A. E. Ames, President; Messrs. J. F.
Ellis and J. D. Allen, Vice-Presidents; and Mr.
Paul Jarvis, Secretary. President Ames was se-
lected as chairman, and Mr. Jarvis was appointed
secretary of the conference. In his opening ad-
dress Mr. Ames referred briefly to the elements
of supremacy and success that existed within the
British Empire. "It remains, in order that the
position of the empire shall be maintained and
advanced, that the elements of prosperity, which are
all available in large measure, shall be recognized,
shall be studied, and shall be safeguarded, and
that there shall be intelligent cooperation among
the countries interested. I believe no one expects
that the delegates have come to this conference
with the idea of trying to turn things upside
down and trying to have employed any but
methods of natural evolution. I take it, however,
that the coming together of such an influ-
ential body means that you consider that the best
method of dealing with problems is not to shirk
their discussion, and that nowadays it does not
do to drift. I think there is also, underlying
this assemblage, the feeling that the brightest
day which the British Empire can have will be
when Great Britain and the other self-governing
countries of the empire all combine in realizing
that united, in every sense, they stand; and di-
vided, in any sense, they fail."

After prolonged and important discussion, res-
solutions were passed in favor of cheaper news-
paper rates between Canada and Great Britain;
of the removal of the British embargo upon
Canadian live cattle; of the extension of the Pa-
sific cable scheme so as to create a complete line of British state-owned cables around the globe; of establishing a Canadian commercial depot in London, and other centers in other countries; of a fast Atlantic steamship line, and of Government aid to a steam service to South Africa; of a heavier duty on lead products; of increased copyright powers; of the appointment of a railway commissioner and Government encouragement of ship-building industries; of the enactment of an insolvency law; the encouragement of Canadian trade via Canadian ports; and increased aid to transportation facilities. The following resolution was also passed: "That in the opinion of the conference it is the duty of the Dominion, as an important division of the empire, to participate in the cost of the general defense of said empire, and therefore that an annual appropriation should be provided in the Dominion budget for this purpose, to be expended as the Dominion Government may direct."

Another resolution was passed in favor of preferential trade as follows: "That this conference is of opinion that Great Britain can best serve the interests of the empire by giving the products of her colonies a preference in her market as against the products of foreign countries: it being believed that such preference would stimulate trade and at the same time benefit Great Britain by largely freeing her from dependence upon foreign industries for her food supplies; and with that view the Prime Minister of Canada is hereby requested to urge at the imperial conference the securing of a royal commission, composed of representatives from Great Britain and the colonies, to investigate conditions and to suggest such preferential treatment of imports from the various parts of the empire as shall be best calculated to insure the fullest benefits."

**Railways.**—The twenty-first annual report of the Canadian Pacific Railway Company for the year ending June 30, 1902, was preceded by a statement of the result of the company's operations during the fiscal year ending June 30. The gross earnings were $37,503,053; working expenses, $23,417,141. The surplus for the year was $8,085,913. The net earnings for the year amounted to 62.44 per cent. of the gross earnings, and the net earnings to 37.56 per cent., compared with 60.75 and 39.25 per cent., respectively, in 1901. The average working expenses per mile were 1.75 cents, and per ton of freight per mile 6.75 cents, against 1.93 and 6.70 cents respectively in 1901. Four-per-cent. consolidated debenture stock to the amount of $850,000 was created and sold on account of the construction of branch lines authorized, and for the purpose of acquiring first-mortgage bonds, on which the interest is guaranteed by the company, of the Mineral Range Railroad Company, the Columbia and Western Railway Company, and the British Columbia Southern Railway Company.

The sales of the company's lands in the year amounted to 1,362,852 acres for $4,442,136, an average price of $3.26 an acre, and the cash receipts enabled the directors to redeem and cancel 5-per-cent. land bonds to the face value of $1,401,400, leaving in the hands of the public at the end of the fiscal year $1,430,000 of these bonds, all of which have since been called for redemption and cancellation.

The statement of the Grand Trunk Railway Company for the half year ending June 30, 1902, showed gross receipts of $2,377,201 and working expenses of $2,063,885, and net profit of $313,316. The cash receipts for the year amounted to $635,624, which was increased from $275,175,196, the total of $285,635,155 for the year ending June 30, 1902, being increased from $190,314, the total of $185,969,956 for the year ending June 30, 1901. The receipts from passengers were $201,498; from mails and express, $1,905,314; from freight and live stock, $1,597,384; from miscellaneous sources, $271,466—a total of $2,377,201 or $11,886,065. The number of passengers carried was 3,525,885, and the tons of freight and live stock were 5,675,338. On maintenance of way and structures $242,400 were spent; on maintenance of equipment, $24,565; on conducting transportation, $260,583; on general expenses and taxes, $271,450. Four-per-cent. debenture stock to the amount of $211,063 was issued during the half year as part provision for the repayment of $222,290 Northern Railway 5-per-cent. bonds, and $85,600 of Montreal and Champlain bonds were repaid. Sir Charles Rivers-Wilson, the president, concluded his statement on Oct. 1 by saying that "the cost of operation has been reduced, increased dividends are available for distribution, and additions to capital have been maintained within the most reasonable limits."

By the completion of the line between Port Arthur and Winnipeg the Canadian Northern Railway took hold of the fourth system in Canada in point of mileage.

The company completed this year an extension of the Carmang branch 19.8 miles west of Carmang. The company also owns the Winnipeg, Great Northern Railway's line of 40 miles from a point near Winnipeg to St. Laurent, Manitoba, which was built some years ago, but has not been operated.

Mackenzie, Mann & Co.'s system also includes the Inverness and Richmond Railway in Nova Scotia, of which 61 miles are in operation—giving them a total of 1,304.7 miles in operation.

The report of the Railway Commission is an elaborate document submitted to the Government on Feb. 10, 1899, by Mr. S. J. McLean after careful investigation, but not made public until 1902. The commissioner gave his conclusions regarding the possible establishment of an independent railway commission in Canada; and the Minister of Railways announced in Parliament that a bill substantially embodying the commissioner's plan would be introduced next year.

**Trade and Commerce.**—The foreign trade of Canada for 1902 was as follows: The imports of home produce were as follows: Mines, $34,947,574; fisheries, $14,058,070; forests, $32,119,429; animals and their produce, $58,245,433; agriculture, $37,132,888; manufactures, $18,462,970; miscellaneous, $32,599; total, $196,019,763.

There was a gain over 1901 in everything but the products of the mine. The increase in agricultural exports was very marked, and was partly attributable to the shipment of war supplies. The Canadian exports to and imports from the countries with which the Dominion had the largest dealings in 1902 were as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>$199,549,840</td>
<td>$49,315,698</td>
</tr>
<tr>
<td>United States</td>
<td>96,585,820</td>
<td>195,809,906</td>
</tr>
<tr>
<td>British colonies</td>
<td>11,599,359</td>
<td>3,660,274</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,206,098</td>
<td>1,700,697</td>
</tr>
<tr>
<td>France</td>
<td>1,200,007</td>
<td>1,014,089</td>
</tr>
<tr>
<td>Germany</td>
<td>1,200,007</td>
<td>1,014,089</td>
</tr>
</tbody>
</table>

The exports to Great Britain in 1902 were $16,490,720 more than in 1901, and the imports from Great Britain increased $6,395,698. Exports to the United States decreased $1,416,836, and imports from that country increased $13,850,031.
The noteworthy increase in Canadian exports to Great Britain and the United States since 1897 is shown in the increase of the former from $92,735,352 in 1897 to $101,000,000 in 1900, and of the latter, from $39,717,057 to $66,560,835. Similarly, imports increased $20,000,000 in amount from Great Britain and $63,000,000 from the United States.

Shipping.—Canada stands eighth in the point of ownership of vessel tonnage among the nations of the earth, leading Spain, Sweden, Holland, Denmark, Greece, Japan, Turkey, and other countries. Great Britain leads the list, the United States being second, then Germany, Norway, France, Italy, Russia, and Canada. The marine departmental report for 1901 showed that the total number of vessels remaining on the register books of the Dominion Dec. 30, 1901, including old and new vessels, sailing vessels, steamers, and barges, was 6,792, measuring 664,483 tons register tonnage, an increase of 5,287 tons register compared with 1900. The number of steamers on the registry books on the same date was 2,177, with a gross tonnage of 297,421; the number of new vessels built and registered in the Dominion of Canada in 1901 was 335, measuring 34,481 tons register tonnage.

Fisheries.—The export of fish from the Dominion in 1900 amounted to $107,200,352. The total value produced, as shown by the annual report of the Fisheries Department for 1901, was $124,762,193, thus increasing from the previous year. Divided among the provinces, the production was as follows: Nova Scotia, $7,800,135; British Columbia, $4,875,820; New Brunswick, $1,917,403; Newfoundland, $1,329,294; Prince Edward Island, $1,059,193; Manitoba and the territories, $718,150. Salmon led in the list of value of fish taken, the figures being 3,939,217, cod being set down for $3,614,775, lobsters for $3,065,350, herring for $1,883,237, and mackerel for $1,549,448. None of the other fish reached the million-dollar mark. In the halibut fishery on the Pacific coast a growth in value of $130,000 was noted in a total of $405,983. The capital invested in the industry was $10,900,125. The lobster plant was valued at $1,419,106, while the British Columbia salmon fishing industry was credited with establishments valued at $1,420,000. Altogether, about 90,000 men were employed, at least a part of their time, in the work of the fisheries, and more than 2,000 vessels of not less than 2,000 fathoms of net. The total expenditure by the Marine and Fisheries Department for the fiscal year ending June 30, 1901, amounted to $1,597,890.53. The expenditure for maintenance of lighthouse and coast service amounted to $505,438.08; construction, $73,378.00; total, $578,812.72; while for the previous year the expenditure for the building and construction, was $516,494.40, showing an increase of expenditure of $62,518.

Minerals.—According to the Geological Survey report for 1901, the production of metallic minerals included: Copper, to the extent of $6,600,104; gold from the Yukon, $72,195,000; silver, $6,495,222; iron ore, $701,284; pig iron from Canada, $1,215,116; lead, $1,199,734; nickel, $4,594,223; silver, $1,993,608; a total of $42,928,299.

In non-metallic minerals the production included: Gypsum, $340,148; limestone, $183,162; manganese ore (exports), $4,820; mica, $160,000; baryta, $3,842; others, $16,375; mineral water, $3,115,615; granite, $115,000; pottery, $200,000; sand and gravel (exports), $117,465; sewer pipe, $250,116; slate, $9,980; terra-cotta, pressed brick, etc., $278,671; building material, $4,820,000. The total structural materials and clay products was $9,461,261, and the total of all other non-metallic minerals was $19,621,072.

Agriculture.—The value of some Canadian farm products exported in 1901 showed a phenomenal increase in volume when compared with 1896, such as peas, which had risen from $1,299,491 in the latter year to $2,674,712 in 1901; flour, which had risen from $769,854 in 1896 to $854,088 in 1896; while from the port of Montreal alone the number of packages carried in cold storage increased from 227,965 in 1900 to 410,983 in 1901. Canadian butter won a better relative position in the markets of the United Kingdom than it had occupied at any previous period. The bacon trade also manifested phenomenal progress. In 1896 the value of the bacon, hams, etc., was only $4,446,884, whereas at the close of the last fiscal year it had risen to $11,829,820. In cheese, while in 1896 the exports were valued at $13,953,571, in 1901 they exceeded $19,800,000, and in 1901 reached 29,690,951.

Criminal Statistics.—The increase of lunacy was 22.76 per cent. in 1901 over the number of cases in 1891, while the population increased but 11.76 per cent. Generally speaking, the country underwent a moral improvement. There was a decrease in crime in Prince Edward Island, New Brunswick, Ontario, the Yukon, and British Columbia; the territories showed an increased ratio, while Nova Scotia and Quebec showed a small increase. The report of urban crime showed a proportion of 29.30 in every 10,000 inhabitants; the rural, 2.26 in every 10,000. The returns by occupation showed that convictions in the agricultural, commercial, domestic, professional, and laboring classes had decreased. The industrial classes received no injury. England supplied 6.35 per cent. of the persons convicted: Ireland, 2.9 per cent.; Scotland, 1.07 per cent.; Canada, 72.91 per cent.; the United States, 4.04 per cent; other foreign countries, 16 per cent.; other British possessions, 13 per cent.

Liquor Statistics.—The Dominion revenue from excise in the year ending June 30, 1902, was $1,125,485, against $1,045,790 in 1901, and $7,165,483 in 1898. Of the total in 1902, spirits amounted to $5,620,613, malt to $1,077,806, tobacco to $3,563,578, and cigars to $907,360. The quantity of spirits produced during the year was 3,234,147 proof gallons, against 2,652,708 in 1901. The consumption of spirits per head was 0.796 gallon, compared with 0.755 in 1901, 0.701 in 1900, and 0.740 in 1902. The provincial revenue from excise taxes on liquor was $1,729,498, against $87,471 in 1898.

CARNEGIE INSTITUTION. On Jan. 28, 1902, Andrew Carnegie gave an endowment fund of $10,000,000. The Carnegie Institution was incorporated on Jan. 4, 1902, "to conduct, endow, and assist investigation in any department of science, literature, or art, and to this end to cooperate with governments, universi-
ties, colleges, technical schools, learned societies, and individuals.

In Mr. Carnegie's deed of gift he further explained the objects of the institution. "It is proposed," so runs the document, "to found in the city of Washington an institution which with the cooperation of institutions now or hereafter established, there or elsewhere, shall in the broadest and most liberal manner encourage investigation, research, and discovery—show the application of knowledge to the improvement of mankind, provide such buildings, laboratories, books, and apparatus, as may be needed; and afford instruction of an advanced character to students properly qualified to profit thereby. Among its aims are these:

"1. To promote original research, paying great attention thereto as one of the most important of all departments.

"2. To discover the exceptional man in every department of study, whenever and wherever found, inside or outside of schools, and enable him to make the work for which he seems specially designed his life work.

"3. To increase facilities for higher education.

"4. To increase the efficiency of the universities and other institutions of learning throughout the country, by so increasing their existing facilities and aiding teachers in the various institutions for experimental and other work in these institutions as far as advisable."

The trustees are: President of the United States, President of the Senate, speaker of the House of Representatives, Secretary of the Smithsonian Institution, and President of the National Academy of Sciences (all ex officio) and Daniel C. Gilman, president; Abram S. Hewitt, chairman; John S. Billings, vice-chairman; Charles D. Walcott, secretary; William N. Frew, Lyman J. Gage, John Hay, Henry L. Higginson, Henry Hitchcock (since deceased), Charles L. Hutchinson, William Lindsay, Seth Low, Wayne MacVeagh, D. O. Mills, S. Weir Mitchell, William W. Morrow, Elihu Root, John C. Spooner, Andrew D. White, Edward D. White, and Carroll D. Wright. E. A. Hitchcock, Secretary of the Interior, was elected a trustee to fill the vacancy made by the death of his brother, Henry Hitchcock, of St. Louis.

The trustees at their annual meeting in November, 1902, adopted the following propositions as guides for the Executive Committee in selecting projects to which the funds and energies of the institution are to be devoted:

First, to promote original research by systematically sustaining—

"(a) Projects of broad scope that may lead to the discovery and utilization of new forces for the benefit of man, pursuing each with the greatest possible thoroughness.

"(b) Projects of minor scope that may fill in gaps in knowledge, of particular things or restricted fields of research.

"(c) Administration of a definite or stated research under a single direction by competent individuals.

"(d) Appointment of research assistants.

Second, to increase facilities for higher education by promoting (a) original research in universities and institutions of learning by such means as may be practicable and advisable. (b) The advancement and expansion of the opportunities offered for special study and research by the Government bureaus in Washington.

The Carnegie Institution will not undertake: (a) To do anything that is being well done by other agencies.

"(b) To do that which can be better done by other agencies.

"(c) To enter the field of existing organizations that are properly equipped or are likely to be so equipped.

"(d) To give aid to individuals or organizations in order to relieve them of financial responsibilities which they are able to carry or in order that they may divert funds to other purposes.

"(e) To enter the field of applied science, except in unusual cases.

"(f) To purchase land or erect buildings for any organization.

"(g) To aid institutions when it is practicable to accomplish the same result by aiding individuals who may or may not be connected with institutions.

"(h) To provide for a general or liberal course of education." At the same meeting the following appropriations were authorized: For scientific research, $200,000; for the reserve fund, $100,000; for administrative expenses, $50,000; for the publication of scientific memoirs and papers, $6,000. It was decided to issue a year-book in December, 1902, to contain the advisory reports and such other information regarding the work of the institution as might seem proper.

CHEMISTRY. Chemical Theory.—A considerable part of the address of Prof. James Dewar as president of the British Association, at Belfast, Sept. 10, was devoted to the discussion of researches concerning extreme cold, the absolute zero, and the liquefaction and congelation of gases, with which the speaker had been closely connected. The first formal expression of a zero of temperature is accredited to Amonson, who in 1794 constructed a thermometer scale in which the zero was placed at a point corresponding with 240 of the centigrade scale—"a remarkable approximation to our modern value for this point of minus 273 degrees." Amonson's experiments were verified by Lambert in 1779, who estimated the value of the zero as —270°. Other estimates followed, with widely varying results, till in 1848, when "the whole question took an entirely new form," and Lord Kelvin, applying the principles underlying Carnot's work on the Motive Power of Heat, calculated the zero at —273° C. "It was a great advance to demonstrate by the application of the laws of thermodynamics not only that an absolute zero of temperature is a reality, but that it must be located at 273° below the freezing-point of water. As no one has attempted to impugn the solid foundation of theory and experiment on which Lord Kelvin based his thermodynamic scale, the existence of a definite zero of temperature must be acknowledged as a fundamental scientific fact." Systematic experiments in the production of extreme cold are traced from the production of liquid carbonic acid by Thilorier in large quantities and his discovery, in 1835, that the liquid could be frozen into a snow by its own evaporation. A very important step in the investigation was the Bakerton lecture of Andrews, in 1869, on The Continuity of the Gaseous and Liquid States of Matter in which the critical temperature and the relations of pressure were defined and experimental proof was given that "the gaseous and liquid states are only distinct stages of the same condition of matter, and are capable of passing into one another by a process of continuous change." Van der Waals, in his essay On the Continuity of the Gaseous and Liquid States, gave "the equation of continuity," involving the relations of pressure, temperature, and volume; molecular
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4. To do that which other sciences cannot do.
5. To enter into the field of operations that are properly to be so equipped and to continue in the broad and most liberal manner, encourage investigation, research, and discoveries, show the application of knowledge to the improvement of mankind, provide some findings, laboratories, books, and apparatus, as is necessary, and afford instruction of an advanced character to students properly qualified to profit thereby. Among its aims are these.

1. To promote science by paying great attention thereto and to the most important of all departments.

2. To discover the present men in every department of science and wherever found, induce or schools, and enable him to complete them, which he seems specially disposed to seek.

3. To maintain the truths in higher education.

4. To cooperate with the universities and the schools of learning throughout the country, awakening and adding to their existing objects to get teachers in the various institutions and to do other work in these institutions is advisable.

The Trustees of the United States, President, Speaker of the House of Representatives, at the South-ward Institution, at the National Academy, and President, with the advice of his friends, Mr. John Dewar as president of the British Association, at Belfast, Sept. 16, devoted to the discussion of chemistry, concerning extreme cold, the absolute zero, and the liquefaction and condensation of gases, with which the speaker had been closely associated. The first conception of a zero temperature is accredited to Ammonson, who in 1794 constructed a thermometer scale in which the zero was placed at a point corresponding was 270 of the centigrade scale—a remarkable approximation to our modern value for this point of minus 273 degrees. Ammonson's experiments were verified by Lambert in 1779, who estimated the value of the zero as 270. Other estimates followed, with widely varying results; in 1848, with the whole question took an entirely new form, and Lord Kelvin, applying the principles of Carnot's work on the Motive Power of Heat, calculated the zero at 273.° C. It was a great advance to demonstrate by mathematical laws of thermodynamics that the zero temperature is real, but that it must be located at 273 below the freezing point of water. As no one has seemed to impugn the solid foundation of their experiment on which Lord Kelvin based his theoretical scale, the existence of a definite point of temperature must be acknowledged as a fundamental scientific fact. Systematic experiments in the production of extreme cold and from the production of liquid carbonic acid by Thilorier in large quantities, discovered, in 1845, that the liquid could be frozen into a snow by its own evaporation. A very important step in the investigation was the discovery of the Gascony and Liquid States of Water, in which the critical temperature and the transitions of pressure were defined and experimentally determined. The proof was given that "the highest states are only distinct stages of the same condition of matter, and are capable of passing into one another by a process of continuous change." Van der Waals, in his essay On the Critical State of the Gascony and Liquid States, gave the equation of continuity, involving the relations of pressure, temperature, and volume, mole:
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pressure, and molecular volume. A second contribution by Van der Waals to the theoretical side of the question, in The Theory of Corresponder States, was even more important than his original essay. This theory with the propositions that have already been developed has been of the greatest importance in directing experimental investigation and in attacking the difficult problems of the liquefaction of the most permanent gases. In Van der Waals theory has far outrun experiment. In the meantime experiment had come on, and most of the gases had been liquefied; and the problem had become not so much how to produce intense cold as how to save it when produced from being immediately leveled up by the relatively superheated surroundings. For this purpose the author contrived a system of double-walled vessels, with the space between the walls very highly exhausted. "Vessels of this kind are now in general use, and in them liquid air has crossed the American Continent." Liquid hydrogen—that being the last of the gases yet refrigerated—is the lightest liquid known to exist, and by far the coldest. It boils at —252.5° C., or 20.5° absolute. Reduction of the pressure in air below the temperature to —238°, when the liquid becomes a solid resembling frozen foam, and this by further exhaustion is cooled to —290°, or 13° absolute, the lowest stable temperature that has yet been reached. "This gap of 18° might seem at first sight insignificant in comparison with the hundreds that have already been conquered. But to win one single degree in the scale of heat is a different matter from doing so at higher temperatures; in fact, to annihilate those few remaining degrees would be a far greater achievement than any so far accomplished in low-temperature research." With the liquefaction and evaporation of a gas as much more volatile than hydrogen as that is than nitrogen it might be possible to reach a lower temperature—say 5° absolute—but even a second hypothetical substance of like relative volatility—as perhaps helium—would not bring the experimenter quite to this limit. He thought that the limit of the series would very be reached by man is extremely improbable. But supposing all difficulties to be overcome and the experimenter to be able to produce a gas of 4° absolute, it is by no means certain that he would find the near approach of the death of matter sometimes pictured. Any forecast of the phenomenon that would be seen must be based on the assumption that there is continuity between the processes studied at attainable temperatures and those which take place at still lower ones. The speaker doubted whether such an assumption was justified.

In a communication to the National Academy of Sciences, April 1902, Prof. T. W. Richards treated of the hypotheses that may reasonably be tried to account for changes in atomic volume. It seems very extraordinary, he held, that notwithstanding the stupendous mass of chemical facts that have been collected and the important researches that have been made in physical chemistry, we are still without knowledge of the nature of a chemical compound and of the manner in which its constituents are held together. We are not even certain that they are held together by mutual attractions; for though the evolution of heat usual when bodies combine indicates that there is some attraction of the molecules simultaneously with the act of combination, there are still cases in which heat is absorbed during combinations. This fact suggests an inquiry whether there may not be other agencies than mutual forces the action of which results indirectly in the formation of chemical bodies; and whether, if so, such agencies may not be a factor even of those combinations in which they are aided by direct forces. When hydrogen and chlorine come together no condensation of which account is taken occurs, although an enormous evolution of heat takes places. The extreme chemical activity of the resulting gas, however, seems to prove that it is not a complete chemical compound. Notwithstanding the great energy with which the ions have approached one another, they are still so active that the case must be regarded as very different from that when a mixture of hydrogen, and oxygen loses one-third of its volume in combining. A body may undergo contraction without combining with a different body, as in the case when the vapor of water is cooled. In all such cases heat is plenteously evolved, and molecule unites with molecule. It may be questioned how far the heat of chemical reaction is anything more than heat of contraction. Condensation does not necessarily consist solely in the approach of atoms toward one another. If a molecule is in itself incapable of condensation and capable of deformation; and it may be so even if it is not a vortex. If atoms are compressible the mutual attraction between two atoms would naturally tend to deform them. Hence we have, further, to determine the relation between such deformations and their valency. Apparently, highly compressible elements, like coals or like carbon, are little compressible. Such considerations as these noted should be borne in mind in the construction of new hypotheses upon which experimental investigations are to be based.

In his presidential address before the section of chemistry of the British Association Prof. Edward Divers, of the Imperial University of Tokio, Japan, presented what he designated as The Atomic Theory without Hypothesis, or divested of the conception of atoms as discrete particles. He thought that the conception of bodies as not continuous in texture, but as composed of discrete minute particles, had been a bar to the full and universal acceptance of Dalton's atomic theory. He thought that a code of all reference to the physical constitution of matter, in which only the conditions of chemical equality between substances should be regarded. In their study of the theory of radio-activity, E. Rutherford and Frederick Solly observe that all the most prominent workers in the investigation, including M. and Mme. Curie and M. Becque- rel, agree that the phenomenon is the function of the atom and not of the molecule. In the experiments of the authors with the emanation produced by thorium compounds and the property it possesses of exciting radio-activity on surrounding objects the radio-activity appeared in each case as the manifestation of a special kind of matter in minute amount. The emanation behaved in all respects like a gas, and the excited radio-activity it produced as an invisible deposit of intensely active material, independent of the nature of the substance on which it was deposited, and capable of being removed by rubbing or the action of acids. The position is thus arrived at, that radio-activity is at once an atomic phenomenon independent of any chemical change in which new kinds of matter are produced. Before such a view was entertained attempts made to explain it on existing
hypotheses proved unsatisfactory. It is appar-
ent that in radio-activity we are dealing with
physical changes that operate at known
atomic forces, for the whole process goes on in
dependently of temperature and chemical affinity.
The idea of the chemical atom in certain cases
spontaneously breaking up, is interesting, but the evolu-
tion of energy is not of itself contrary to anything that
is known of the properties of atoms. The changes brought to knowledge by radio-activity,
although unmeaningly material and chemical in
nature, are of a different order of magnitude from
any that have been before dealt with in
chemistry—being of an extreme order of minute-
tness. It is a significant fact that the radio-ac-
tive elements are all at the end of the periodic
table. If we suppose that radium is the missing
second higher homologue of beryllium, then the
known examples—uranium, thorium, radium,
polonium (bismuth), and lead—are the five
elements of heaviest atomic weight. Nothing can yet be said of the mechanism of the changes un-
volved; but whatever view is ultimately adopted,
it seems not unreasonable to hope that radio-
activity affords the means of obtaining informa-
tion of processes going on within the chemical
atom itself.

The radio-active elements are considered by
Mr. Geoffrey Martin, of the University of Ber-
linc, as examples of elements undergoing decom-
position at a greatly elevated temperature. In all prob-
ability the behavior is not peculiar to heavy
radio-active elements, but occurs with other ele-
ments in the periodic system at suitable tempera-
ture ranges where other elements exist.

Through his experiments with liquid and solid
hydrogen, Prof. James Dewar has been able to
learn much concerning the true relations of that
element. Faraday, Dumas, Daniell, Graham, and
Andrews thought that if hydrogen could ever
be brought into the state of a liquid or solid it
would reveal metallic characters; but Prof. Odling,
in 1861, pointed out in his Manual of
Chemistry that the chlorous relations of hydro-
gen were as decided, important, and frequent as
its other ones, and expressed the opinion that it
must be a part of every body, and should not be expected to present, in its
liquid or solid form, the appearance of a metal. Dumas found analogies between hydrogen and moli-
ars, and theory that both elements probably had the same atomic volume; and he deduced a density for hydrogen near the value
that has been obtained in subsequent experi-
ments. Newlands, in 1872, regarded it as the
lowest member of the chlorin family; Mendeleef
placed it with the alkalai metals; and Dr. John-
stone Stoney classed it with the alkaline earth
metals and magnesium. The conclusion of Prof.
Odling has been confirmed by Prof. Dewar's re-
sources. In the account of his investiga-
tions given in his presidential address before the Brit-
ish Association, 1902, Belfast, he cites the case
of liquid hydrogen as an excellent illustration of
the truth that no theoretical forecast, however
apparently justified by analogy, can be finally ac-
cepted as true until confirmed by actual experi-
ment. As described in this address, liquid hydro-
gen is a colorless transparent body. It has a
clearly defined surface, is easily seen, drops well,
in spite of the fact that there is only the twenty-fifth part of that of water or
one-fifth of that of liquid air, and can be poured
easily from vessel to vessel. The liquid does not cool so that it changes into a solid,
250 degrees absolute, it is very critical point of
the liquid is about 29 degrees absolute, and the critical
pressure is not more than 15 atmospheres. The
vapor of the hydrogen arising from the liquid has
nearly the density of air—that is, fourteen
times that of the gas at the ordinary tempera-
ture. It boils at 258 degrees absolute, and may
be kept in the form of a clear, transparent ice,
melting at about 55 degrees absolute, under a pressure of 55 millimeters, and hav-
ing one-eleventh the density of water.

In a lecture on Catalysis, Prof. William Ost-
wald defined a catalyst as any substance which
will alter the velocity of a chemical reaction
without appearing in the final product, and
catalysis as the process induced by a cata-
lyst. Catalytic action is extremely
common, and as a matter of fact appears wherever the velocity of a chemical reac-
tion can be measured. Catalytic reactions were
at one time divided into four groups: 1. Re-
lease in supersaturated solutions, as when such
solutions of Glauber's salts are crystallized by a
small trace of the solid substance with which the
solution is saturated. It also occurs in solu-
tions of gases, vapors, etc. 2. Catalysis in
homogeneous solutions—the largest and theore-
tically the most important class of contact reac-
tions. 3. Heterogeneous catalysis, which is illus-
strated in the action of platinum on combustible
mixtures of gases, as of oxygen and hydrogen, or
in the combustion of sulfur dioxide to tri-
oxide. 4. Enzymes, which are to be looked upon
as catalysts that are in the organs during the
life of the cell, and by the action of which it
recharges the greatest part of its duties. There
seems to be an internal activity which
hydrogen cannot be catalytically influenced, no chemical
substance, whether element or compound, which
ca 

Experiments on the antiseptic properties of
dilute solutions of acids were made by M. Bial
on yeast-cells. The retarding action of different
acids on the cell growth appears to have been
measured by observing the amount of carbon diox-

It
was found that the concentrations of the solution. Different ones are present. The development of the cells completely are much smaller in the case of the strong acids like hydrochloric and sulfuric acids than in the case of weak acids, such as acetic and butyric acids. The results led the author to conclude that the antiseptic power is essentially determined by the hydrogen ion which is contained in the solution, and that the electrolytic dissociation theory is competent to account for the observed phenomena in a satisfactory manner. As is required by this theory, it is found that the addition of neutral salts to a solution diminishes the antiseptic power of the acid; the concentration of the active component of the solution, the hydrogen ion, being under these circumstances the only factor determining the power.

In a lecture at the Royal Institution, Prof. Otto N. Witt, of Berlin, explained that in order to become a dyestuff a substance must not only be so intensely colored that it could communicate its own shade to colorless substances holding it in solution, it must not only be soluble in water or other liquid suitable for preparing a dyestuff, but moreover it must be capable of giving rise to a suspension of the dyestuff in the substance of the fiber, unless there are other chemical influences, such as that of the mordants, at work to change the solution into a suspension by precipitating the dyestuff and the mordant into the fiber. This peculiar combination of solubilities is rare in colored substances of an inorganic nature; and in the vast domain of organic substances of the aliphatic series few dyestuffs are met with, but in the aromatic series, where the power of selective absorption of light is very frequent, it would be curious if they were not of common occurrence. Since the physical properties of every compound are direct functions of its molecular constitution, it is easy to believe that this peculiar combination of solubilities would be the result of certain general conditions fulfilled by members of the aromatic group; and the theory the author had proposed twenty-five years before was simply an attempt to discover those conditions by investigating the constitution of all those dyestuffs whose constitution was known in those days. In the molecule of every coloring-matter whose constitution was known certain atomic constellations had been observed which seemed to be essential, and of which two must always be present—chromophores and auxochrome groups. Of the former, about two dozen were known, all agreeing in the fact that they could not exert their influence except in the presence of the auxochrome groups, of which very few were known. There must exist a law governing the formation of these auxochrome groups, but so far it has not been definitely established, though some progress has been made toward doing so. Our knowledge of the chemical causes of the physical properties of coloring-matters is continuously developing, and lately some definite views have been formed about the connection of the chemical constitution of the aromatic bodies with that form of selective absorption of light known as fluorescence. Much work has been done on the constitution of the azo-colors, the introduction of which was the direct result of the physical properties of the auxochrome groups on definite scientific principles. The number of dyestuffs of this class is extraordinary; and it has been computed that 3,100,000 of the different ones are produced each year. Of these, at least 25,000 are patented, while more than 500 are manufactured on the larger scale. Azo-dyestuffs can be produced at will to dye wool or silk or cotton, to make paper or quickly, to stand soap, or acid, or alkali; and this possibility of adjusting their properties with almost mechanical precision has been the cause of the greatest successes of the color industry. While this field has borne it rich harvest, other fields have not been neglected. Perhaps the greatest and most brilliant success of the chemistry of dyestuffs has been the industrial synthesis of indigo.

An experimental basis has been laid for the chemical theory of the formation of petroleum by the researches of M. Paul, of small dimensions, and J. B. Senderens on the action of reduced nickel, iron, and other metals upon hydrocarbons. By the direct hydrogenation of acetylene in the presence of nickel, we obtain liquid mixtures of hydrocarbons which can be made to correspond with the American or Cauca- sian petroleum by varying the conditions of the experiment. To be sure, even the richer form of petroleum, it is thus sufficient to admit that there are in the depths of the ocean free alkali metals and metallic carbides which in contact with water give rise to the mixtures of hydrocarbons and hydrocarbons. These cases encounter nickel, cobalt, or iron in a finely divided state, and thus give rise to the mixtures of hydrocarbons, so as to form natural petroleum. Berthelot and Mendeleef had supposed that the natural hydrocarbons were mainly formed by the action of steam upon metallic carbides; but difficulty had been found in applying this theory to the formation of the naphtas of the Russian oil-fields.

Chemical Physics.—It was found in the ex- periments of E. Rutherford and F. Solly, of McGill University, that thorium from which the radio-active constituent (Th) has been separated regained its activity with time, while the activity of Thx decreased with time. Thx was observed to possess a distinct chemical behavior which differentiated it in many respects from Th, and was the only reagent of those tried capable of separating it from the latter. Experiments are cited which indicated that Thx was continuously produced by thoritistone, the rate of the reaction increasing in direct ratio. The rate of production of Thx and rate of decay of its activity were apparently unaffected by known agencies. Both changes proceeded independently of the chemical and physical conditions of the molecule. The source of the energy required to maintain the radio-activity of thorium over indefinite periods was therefore supposed to be found in a chemical change producing new types of matter. Emanating power appeared to be a property of Thx, and of thorium, and was proportional to the activity of the Thx present. The group of emanating power of Thx and thorium were completely analogous to the decay and recovery of radio-activity. These results find their simplest explanation in the view that one of the products is gaseous and in the radio-active state is the emanation. The result arrived at, that radio-activity is the consequence of changes in which new types of matter are formed, contrary to the conclusion that it is the result of subatomic changes. In experiments made after the writing of this account, solution in water was found to increase the emanation for new color ofing-matters on definite scientific principles. The number of dyestuffs of this class is extraordinary; and it has been computed that 3,100,000 of the different ones are produced each year. Of these, at least 25,000 are patented, while more than 500 are manufactured on the larger scale. Azo-dyestuffs can be produced at will to dye wool or silk or cotton, to make paper or quickly, to stand soap, or acid, or alkali; and this possibility of adjusting their properties with almost mechanical precision has been the cause of the greatest successes of the color industry. While this field has borne it rich harvest, other fields have not been neglected. Perhaps the greatest and most brilliant success of the chemistry of dyestuffs has been the industrial synthesis of indigo.
Simultaneously with the observation of the latent heat of the primary mode of atomic transformation, it was noticed that preparations of thorium carbonate varied enormously in radiating power according to the method in which they were prepared. In the course of the experiments to which these observations led, it was found that active filters produced under various conditions described by the authors contained no thorium, or at most only a minute trace, but another substance in very appreciable quantities which when precipitated with sodium phosphate appeared as a white substance possessing both emanating power and radio-activity many hundredfold greater than those of thorium. This substance has not yet been obtained in sufficiently large quantities for an exhaustive chemical investigation, and it is impossible at present to say what it may prove to be. The authors do not believe, however, that it is the radio-active or the emanating constituent of thorium. The evidence of a series of observations leads them to the conclusion that the major part of the radio-activity of thorium—ordinarily about 54 per cent.—is due to a non-thorium type of matter (Thx) possessing distinct chemical properties which is temporarily radio-active, its activity falling to one-half its volume in about four days. The constant radio-activity of thorium is maintained by the production of this material at its constant rate. Both the rate of production of the new material and the rate of decay of its activity appear to be independent of the physical and chemical condition of the thorium matter. Further, it possesses the property of exciting radio-activity in surrounding inactive matter, and about 21 per cent. of the total activity under ordinary circumstances is derived from this source. Its rate of decay and other considerations make it probable that it is the same as the excited radio-activity caused by the thorium emanation, which has been shown to be produced by Thx. There is evidence that if by any means the emanation is prevented from escaping in the radio-active state, the energy of the radiation goes to augment the excited radio-activity in the compound. Thorium can be freed by suitable means from both Thx and the excited radio-activity which the latter produces, and then possesses an activity about 25 per cent. of that of normal thorium, below which it has not been reduced. The residual radiation consists entirely of rays non-decivable by the magnetic field, where as the other components comprise both decidable and undecidable rays. Most probably, the authors suggest, this residual activity is caused by a second non-thorium type of matter, produced in the same changes as Thx, and it should therefore prove possible to separate it by chemical methods.

T. W. Richards predicates two conceivable causes of compression in a substance. The pressure may be applied from the outside or it may be due to the attraction or affinity of the smallest particles of the substance for one another. That is, the substance may be compressed either by an outside pressure or by the intensity of its own cohesion. The former cause may be typified by highly compressed gases, the second by liquids. In solids we must consider also the direct action which manifests itself in crystalline form and crystal structure. The presence of the crystal-making force complicates the phenomenon, and is a considerable stumbling-block to the study of the theoretical tension of solids, a view of the case. It is believed by the author possible that the study of compression as manifested by atomic volume under different circumstances, as well as of atomic compressibility, might afford a sort of light at work. The outcome of the author's first studies, of which an account was communicated to the American Academy of Arts and Sciences, is that atomic volume is not constant, but is a function of pressure and temperature, and, probably, of electric stress.

Enumerating some of the results that have been attained in low-temperature studies (with liquid air and liquid hydrogen), Prof. James Dewar said at the British Association meeting that the great majority of chemical actions are entirely suspended; but fluorin is still active at the temperature of liquid air. Whether solid fluorin and liquid hydrogen would interact, no one can at present say. Bodies naturally become denser, but even a highly expansive substance like ice does not appear to reach the density of water at the lowest temperature, a fact confirmatory of the view that the particles of matter under such conditions are not, and at the lowest possible way. The force of cohesion is greatly increased at the extremely low temperature, as is shown by the additional stress required to rupture metal which is temporarily being kept as being of much interest in connection with two conflicting theories of matter: that of Lord Kelvin, that the forces which hold the particles of matter are the forces of cohesion, and assuming any other agency than gravitation, or any other law than the Newtonian; and the opposite view, that the phenomena of the aggregation of molten metal, and the vibration of a crystalline as a physical cause. Hence, according to this theory, at the zero of absolute temperature, the vibratory energy being in complete abeyance, the phenomena of cohesion should cease to exist, and matter generally be reduced to a heap of cosmic dust. The second view receives no support from experiment.

The photographic action of light is diminished at the temperature of liquid air to about 20 per cent. of its ordinary efficiency, and at the still lower temperature of liquid hydrogen only about 10 per cent. of the ordinary sensitivity remains. At the temperature of liquid air and liquid hydrogen a large range of organic bodies, and many inorganic ones, acquire under exposure to long continued violet light the power of phosphorescence. Such bodies glow faintly so long as they are illuminated, but become exceedingly brilliant during the period when the temperature is rising. Even solid air is a phosphorescent body. All the alkaline earths besides which phosphoresce brilliantly at the ordinary temperatures lose this property when cooled, and have it renewed on heating; but such bodies may be stimulated through the absorption of light at the lowest temperatures. Radio-active bodies, on the other hand, like radium, which are naturally self-luminous, maintain their luminosity unimpaired at the very lowest temperatures, owing to the electric stimulation causing discharges between the crystal molecules. This phenomenon is very pronounced with nitrate of uranium and some platino-cyanides.

A long series of experiments were made by Prof. Dewar and Prof. Fleming on the electric and magnetic properties of bodies at low temperatures—such as the thermoelectric powers of pure metals, the magnetic properties of iron, steel, dielectric constants, the magnetic and electric constants of liquid oxygen, and magnetic
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susceptibility. The results showed that electric resistance by pure metals is largely dependent upon the molecular or atomic motion which gives rise to temperature, and that the process by which the energy constituting what is called an electric current is dissipated essentially depends upon non-homogeneity of structure and upon the absolute temperature of the material. It is not shown, but left doubtful, that resistance would vanish altogether at zero of absolute temperature and all pure metals become perfect conductors of electricity; but other observations are mentioned, made at very low temperatures, which appear to point to an ultimate finite resistance. In magnetic work the result of greatest value was the proof that magnetic susceptibility varies inversely as the absolute temperature.

The properties of 19 elements were examined by Mr. Hugh Ramage in a comparative study of the structure, densities, and melting-points of some groups of elements and the relation of the properties of elements to their atomic mass. The elements and groups were: 1. Lithium, sodium, potassium, rubidium, and cesium. 2. Calcium, strontium, and barium. 5. Aluminum, gallium, indium, and platinum. The flame spectra of the metals were much studied with the object of obtaining spectra, and might be regarded as the fundamental spectra. They furnish purely experimental data with which to begin an investigation of the laws which govern the distribution of the spectra and by which to analyze the relation of the physical and chemical properties of the metals to their spectra. Diagrams have been drawn to show the important points revealed. Among the facts observed in the study of these diagrams were: 1. That the metals considered may be classified into groups according to their spectra, the elements in each group appearing to have a similar atomic structure. 2. The connecting lines between the members of the chemical groups are not continuous; there are certain breaks in them. These occur between the metals sodium, magnesium, and chromium and the metals of the respective groups higher up in atomic masses. The break between the sharp series in the spectra of the aluminum group is very marked; that between the diffuse series is very marked and corresponds to marked changes in the densities and cooling-points of these elements. 3. The course of the discontinuity of corresponding lines is strongly homogenous is intimately connected with the atomic masses. The shift of the subordinate series of potassium, rubidium, and cesium is proportional to the atomic mass, while the shift of the principal series is very nearly proportional to the square of the atomic mass. 4. The lines which connect the corresponding members of the homogeneous doublets and quartets approach one another as the atomic mass decreases, and intersect on the line of zero atomic mass. The spectra of potassium, rubidium, and cesium change regularly with atomic mass. The whole study is regarded as indicating that the properties of the elements are fundamentally due to the structure of the atoms as revealed by their spectra rather than to the quantity of matter in them.

New Substances.—Having in a previous paper published an account of the preparation and properties of the liquid silicon hydride, M.M. H. Morris and S. Smiles have continued their research, and have given further proof of the formula SiH4, which they found for it. This silicid corresponds among silicon compounds to ethane in the carbon series; it is spontaneously inflammable in presence of air, and possesses very energetic reducing properties. It decomposes carbon tetrachlorid and sulfur hexafluorid with violence.

Describing, in the American Chemical Journal, some reactions between acid and basic amids and liquid ammonia, Messrs. Franklin and Stafford observe that solutions of these amids in liquid ammonia are conductors of electricity, a fact possibly due to electrolytic dissociation of the dissolved substances. These amids seem to bear a relation to liquid ammonia which in many respects is very similar to that borne by ordinary acids and bases to water. Complete or partial neutralization of the dissolved amids takes place with the formation of one or more molecules of the solvent in which the reaction takes place. By bringing together liquid ammonia solutions of different acid and basic amids, the authors have prepared a large number of metallic substituted amids—such, for example, as monopotassium acetamid, monopotassium and dipotassium benzanid, monopotassium and dipotassium sulfamid, monopotassium and dipotassium urea.

Herr Th. Gross reports in the Elektrochemische Zeitung as one of the results of the investigation of the behavior of silicon when exposed to long-continued electrolysis is the evidence of the probable presence of some second element in the fused mixture produced. The silicon recovered after passing the electric current through silica when dissolved in a weight of pure caustic potash showed a deficiency on the original weight. The part lacking was found in a small quantity of a substance possessing different physical and chemical properties. This substance was easily soluble in hydrochloric acid. When heated in a porcelain crucible it melted and yielded a brown mass, which on treatment with hydrogen gas left a gray residue possessing metallic characteristics resembling those of selenium. The experiments are regarded as requiring further confirmation.

In a paper on persulfuric acid read in the Royal Society, Prof. H. E. Armstrong and T. Morton Lowry said that on electrolyzing strong solutions of sulfuric acid, Faraday in 1834 noted "a remarkable disappearance of oxygen." This was shown by Berthelot in 1878 to be due mainly to peroxidation of the sulfuric acid. An anhydrid, S₅O₇, was isolated, and Berthelot therefore combining lines is some strictly homogenous is intimately connected with the atomic masses. The shift of the subordinate series of potassium, rubidium, and cesium is proportional to the atomic mass, while the shift of the principal series is very nearly proportional to the square of the atomic mass. 4. The lines which connect the corresponding members of the homogeneous doublets and quartets approach one another as the atomic mass decreases, and intersect on the line of zero atomic mass. The spectra of potassium, rubidium, and cesium change regularly with atomic mass. The whole study is regarded as indicating that the properties of the elements are fundamentally due to the structure of the atoms as revealed by their spectra rather than to the quantity of matter in them.

Some experiments in the destruction of rats in ships as a prophylactic against the communication of plague are referred to in the Journal of July 19 as demonstrating the superiority of a gas called Clayton gas to sulfurous acid or carbonic acid gas for that purpose. This gas is essentially a sulfur dioxide, but there occurs in it by
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virtue of the peculiar method by which it is obtained a technical "impurity," which gives it its special value. This "impurity" is sulfur trioxide, the presence of which is manifested by the burning properties of the gas. Clayton gas is produced by the combustion of sulfur in a current of air during which the temperature rises sufficiently high to lead to the formation of some amount of sulfur trioxide. The gas is used mixed with air in the proportion of 10 to 15 per cent. It is said that less than 5 per cent. of the Clayton gas will destroy rats and other vermin, while at least 15 per cent. of pure sulfur dioxide is required for the destruction of vermin life. Yet Clayton gas has no appreciable action on colored materials, foodstuffs, paints, or dry metals except in a moist atmosphere. Its fire-extinguishing qualities are also remarkable; a mixture containing 8 per cent. of it rapidly extinguishes burning materials.

Pentafluorid of iodin was obtained by M. Moissan without difficulty in a perfectly pure state by the action of fluorin upon solid iodin. It formed a colorless liquid—boiling at 96° C., and boiling without change at 97° C. Analysis shows that the fluorid has undoubtedly the composition IF₅, and it is noteworthy that it can be produced in a certain extent being the only hydrogen without any reaction taking place. This fluorid possesses very great chemical activity. Most elementary bodies decompose it, and it produces with compositions a large number of double decompositions. Pentafluorid of iodin is decomposed about 500° C., iodin being formed, and possibly a new fluorid of iodin.

A method of the analogue in the cacodyl group of methylamin—has been prepared by A. W. Palmer and W. H. Dehn. Indications of the existence of such a compound had been obtained three years before by the reduction of methylidichlorarsin; but as this is costly and difficult to prepare, a more suitable starting-point was found in cacodyl acid. This, on reduction with amalgamated zinc dust and hydrochloric acid, gives the CH₃AsH₂, which is separated from the hydrocyan acid that accompanies it by passing through a U-tube surrounded by a mixture of solid carbon dioxide and ether. Monomethylarsin is a colorless, mobile liquid which boils, under ordinary atmospheric pressure, at 2° C., and possesses the penetrating, objectionable smell of cacodyl. It is not attacked by rubber, and combines immediately with oxygen, without, however, catching fire spontaneously; in this respect differing from dimethylamin. The production of monophenylarsinic acid is discussed in the same paper.

In the manufacture of a pigment which in composition is a hydrated basic ferric oxide, Fe₃O₄·Fe₂(Oh)₁, one of the first commercial applications is presented of those physico-chemical theories which have been developed largely by the study of dilute electrolysis. The waste ferrous liquor derived from iron pickling—generally ferric acid with some free acid—is neutralized and then oxidized by the joint action of air and steam. As the oxidation proceeds an alkali, as sodium carbonate in solution, sufficient to maintain substantial neutrality, is produced, and simultaneously therewith a large volume of water, which is the true precipitating agent. The effect is that known as hydrolysis, or the solubilization of a salt composed of a base and acid between which there is a great disparity of strength—in the present instance a compound of a weak base with a strong acid. By the oxidation of ferrous sulf ate, basic ferric sulfate is formed, and this salt in the presence of a large volume of water is hydrolized, yielding sulfuric acid and basic ferric hydroxide—the pigment of which is manifested by the burning properties of the gas. Clayton gas is produced by the combustion of sulfur in a current of air during which the temperature rises sufficiently high to lead to the formation of some amount of sulfur trioxide. The gas is used mixed with air in the proportion of 10 to 15 per cent. It is said that less than 5 per cent. of the Clayton gas will destroy rats and other vermin, while at least 15 per cent. of pure sulfur dioxide is required for the destruction of vermin life. Yet Clayton gas has no appreciable action on colored materials, foodstuffs, paints, or dry metals except in a moist atmosphere. Its fire-extinguishing qualities are also remarkable; a mixture containing 8 per cent. of it rapidly extinguishes burning materials.

Exposing powdered niobite and sugar charcoal to the temperature of the electric furnace, Prof. Moissan obtained a substance rich in niobium and tantalum. From this tantalum was separated by a solution of iron at 98° C., and boiling without change at 99° C. Analysis shows that the fluorid has undoubtedly the composition IF₅, and it is noteworthy that it can be produced in a certain extent being the only hydrogen without any reaction taking place. This fluorid possesses very great chemical activity. Most elementary bodies decompose it, and it produces with compositions a large number of double decompositions. Pentafluorid of iodin is decomposed about 500° C., iodin being formed, and possibly a new fluorid of iodin.

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The action of radiferous barium chloride, contained either in sealed tubes or gutta-percha sheaths and held in the hand or carried in the pocket for from six to ten hours, has been found by Mr. M. W. Travers to be capable of producing a slight redness of the skin, but not sufficient to be at all dangerous. 

New Processes.—It has been found by Camille Martignon that tellurium, gold, and platinum in all their different forms are attacked by a mixture of hydrochloric acid and oxygen at temperatures much below those used in the oxidation of hydrochloric acid gas in oxygen. The mixture constitutes a chlorating agent for a great number of materials. In the three cases mentioned its action can be compared to that of free chlorine.

With an apparatus essentially modified from that of Hampson for the liquescent air, Mr. M. W. Travers has obtained liquid hydrogen in quantity. Hydrogen at a pressure of 200 atmospheres is subjected to a preliminary cooling at 150° C. in solid carbonic acid and alcohol. It is then successively cooled by liquid air boiling under atmospheric pressure and under a pressure of 100 millimetres, after which it escapes from the Hampson valve, and being sufficiently imperfect, is cooled further by the lower temperature (—290° C.) obtained by the liquid air boiling under low pressure. Regenerative cooling is produced, as in the liquescent air of the Hampson machine. Liquid hydrogen is thus obtained, and is collected in a vacuum vessel which is specially isolated from external heat.

The production of oxygen and hydrogen gases by the electrolysis of solutions of caustic alkali is carried on as a regular industry at works in Rome, Milan, Zurich, Lucerne, Hanau, Brussels, and Paris. In the Schuchert electrolyzer a 15 per cent solution of sodium hydroxide is the electrolyte, and the decomposition by the electric current goes on so rapidly and regularly that a continuous supply of distilled water is required to remove the gas. The most efficient work is given at a temperature of 70° C. with an electro-motive force of 2.8 volts. With a Schuchert electrolyzer 660 millilitres in length, 450 millimetres in breadth, and 260 millimetres high, a primary current of 50 liters of sodium-hydrate solution, and a current of 600 amperes, 220 liters of hydrogen, and 110 liters of oxygen at 15° C. temperature and 700 millimeters pressure are produced per hour.

The remarkable influence which is exerted by traces of iron in determining and regulating the oxidation of various organic substances was first observed by H. J. H. Fenton about twenty years ago, and the observation has opened to him since a very wide and fruitful field of investigation. The work in it is still being extended in several directions. In a communication by Mr. Fenton to the Cambridge Philosophical Society a brief summary was given of the researches on the subject that have been made in the last ten years which had recently been obtained. The condition of the oxidation method showed very close analogies with certain natural processes, and many experiments were in progress with a view to throwing further light upon the function of the iron.

In the decomposition of the natural phosphates by sulfuric acid in the manufacture of superphosphatic fertilizers, fluorine is released in the form of hydrofluoric acid or of fluorid of silicon, to the annoyance of manufacturers, and in some degree of contaminating the atmosphere. For a time the gases were led through water, and with the solution thus formed sodium, magnesium, or aluminum fluosilicates were prepared, which were of little use, except that the last two might be applied to the hardening of stone. Fluosilicic acid has more recently been found to have strong antiseptic properties, and to be very useful as a preservative of manure, checking the denitrifying action of bacteria, for which purpose it surpasses plaster, kainite, and superphosphate of lime. In a recently patented preparation, the fluosilicic acid is incorporated with clay in a powder, which is accompanied by another powder consisting of a porous substance saturated with sulfuric acid. When the powders are scattered over the manure pile, the antiseptic fluosilicic acid is generated by the action of the sulfuric acid on the fluosilicates.

Since the discovery of the compound of hydrogen and nitrogen known as hydrazoic acid numerous modes of obtaining hydrogen in quantity have been discovered. Most of these depend upon the use of organic compounds. Purely inorganic syntheses have been made by Wieliczens from sodium amid and nitrous oxid, and by Tanater by a mixture of hydrazin and hydrazyn chlorid. In a third synthesis recently described by Tanater, a mixture of hydrazin sulfate and hydroxyamin hydrochlorid is treated in acid solution with an oxidizing agent and distilled, when hydrazoic acid passes off with the distillate.

Artificial silk is now manufactured in France from wood-pulp dissolved in electrically made bisulfide of carbon. The solution of wood-pulp, prepared in the usual way, as for paper-making, is squirted through glass nozzles of exceedingly small dimensions, whence it issues in fine hair-like threads. These fibers are to all intents and purposes silk as soon as the volatile solvent has evaporated. They are then prepared in the usual way and spun into thread.

A new process lead dioxid is now produced electrochemically from a solution of an alkaline chlorid in which lithium is suspended. Atomic Weights.—A number of atomic weights published by the International Committee, the values on the basis of O = 16 are given unaccompanied by the didactic table based on H = 1. The withdrawal of the didactic table is explained to be in accord with a widely expressed wish. It is generally felt that if O is to be taken as = 16 for any purpose, it should be taken so for all purposes. In a paper read to the American Society of Science and Arts, Prof. T. W. Richards appealed to chemists to conform to the decision of the International Committee. He pointed out that O = 16 has served as the experimental standard of reference in the great majority of cases, that the great bulk of valuable work has already been published on that basis, and that the use of this standard involves no great didactic difficulties; and he contends that the decision of the International Committee is in itself an important reason for admitting this standard, and that this standard is more important than any of the special advantages claimed by either side in the discussion. The only alternations of atomic weights in the
current year's table were those of calcium from 4 to 40.1, iron from 50 to 55.9, and tellurium from 127 to 127.8.

The results of a redetermination of the atomic weight of uranium have been published by Prof. T. W. Richards and Mr. Merigold. Of previous determinations, that of Zimmermann, who in 1898 found the value 238.68, was regarded by the authors as most worthy of consideration. Zimmermann's method, which was based upon the preparation of pure UO₃ and its conversion into U₂O₇, seemed likely to give too high numbers, because of the difficulty of obtaining the lower oxide free from occluded gases, and of oxidizing it completely. The authors chose for the basis of their research the analysis of uranous bromide. The analysis was effected by oxidizing uranous bromide to uranic bromide by means of hydrogen peroxide and then precipitating the bromine by means of a sodium nitrate. The results showed satisfactory concordance, and led to a conclusion expressed by the authors as follows: If O be taken as 16 and bromine as 79.935, the atomic weight of uranium appears to be not far from 238.53." It is remar ked that although this number differs by more than a unit from that given by Zimmermann, the percentage atomic difference, 0.0023, seems to be no greater than many which have often been passed unheeded in the case of elements of smaller atomic weight. It is, however, a noteworthy difference, and the probability seems to the authors to be that Zimmermann’s number was too high.

Through concentrating by fractional crystallization the greater part of the radiferous barium at her disposal, Mme. Curie succeeded in obtaining amount 1 decigram of perfectly pure radium chloride. This enabled her to determine the atomic weight of radium. She found it to be—taking chlorin = 35.4 and silver = 107.8—radium = 225, with a probable uncertainty of not more than 1 unit silver being considered a bivalent element. Pure anhydrous radium chloride is described by Mme. Curie as being spontaneously luminous. From its chemical properties, radium appears to be an element of the alkali earthy series, and is the proper homologue of thoria. According to its atomic weight, it should be placed in Mendeleieff’s table below barium in the alkaline earthy series, and on the line with thorium and uranium.

It has been observed that when calculated to the standard O = 16, many of the atomic weights approach whole numbers in a much larger proportion than they theoretically should according to the theory of probabilities. This subject is referred to by Arthur Marshall, in the Chemiker Zeitung (July 19), in a paper in which attention is called to some very remarkable relationships which appear to exist in many cases between the atomic weights of allied elements. Taking from the tables accepted by the German Chemical Society the 18 values calculated to two places of decimals, the chances against their approaching whole numbers are as 4,120 to 1. If the atomic weights are referred to H = 1, little or no tendency appears to approach whole numbers. The most striking relationships appear when certain of the atomic weights are referred to entirely different standards. Thus, the atomic weights of the halogen elements and silver are exactly in the ratio Cl : Ag = 35.4 : 107.8 = 322. In the case of the alkali metals the proportions are even simpler: L: NH₂: Na: K: Rb = 7: 18: 23: 39: 85. Then in the horizontal series, V: Cr: Mn: Fe: Co: Ni: Cu = 58: 52: 59: 62: 67: 69. Other analogies are shown in Mr. Marshall’s paper. It is not yet time, the authors observes, to work out relationships for all the elements; for there is still too great uncertainty about many of the atomic weights referred to above to appear to be thoroughly well established.

In experiments for determining the atomic weight of arsenic, W. Clarence Brough proceeded by four methods, namely, conversion of silver arseniate with silver chlorid and reduction of this to metallic silver; conversion of silver arseniate into silver bromid; conversion of lead arseniate into lead chlorid; and conversion of lead arseniate into lead bromid. The mean of results obtained in 20 experiments was 75.008, with a probable error of ± 0.006. While this result is not regarded as conclusive, it is considered in many respects “certainly confirmatory.”

Prof. T. W. Richards has determined the atomic weight of cesium at about 132.878, with a range of from 132.873 to 132.882.

The subject of the most suitable standard for the calculation of atomic weights is discussed by Mr. Cecil Hollins, who shows that when oxygen was taken instead of hydrogen, and the value of its atomic weight was raised from 15.88 to 16, the unit was later than many which have often been passed unheeded. In this scale the atomic weights of the elements exhibit a considerable tendency to agree with Prout’s whole-number hypothesis—16 of them being integral against 6 when H = 1 is used as the standard, and the sum of the deviations from unity being only 10.286 as against 15.861. So, by further lowering the unit, he might expect that the atomic weights of the elements would still more closely approach to integers. By dividing each of the atomic weights into the nearest whole numbers, the authors obtained factors ranging between 1.0101 for helium and 0.9859 for silicon, the mean of which was 0.99877. If this be taken as the unit, the atomic weights of the elements show a further tendency to become integral; and by treating these in the same way the whole weight is again reduced, the mean factor now being 0.99867.

The results upon 17 elements on whose atomic weights authorities differ are as follows: hydrogen, helium, lithium, sodium, potassium, oxygen, sulfur, selenium, nitrogen, fluorin, chlorin, carbon, chromium, beryllium, calcium, aluminum, and boron, were encouraging. The values of the 17 atomic weights are integral when the standard is H = 1, and 6 when it is O = 16. 10 are so when the factor is 0.99877 is taken, and 15 when the factor is 0.99867. The total deviations under these different units, taking them in the same order, are 2.87, 1.448, 1.064, 0.729. The author’s paper is only preliminary, and his research is to be continued.

Chemical Analysis.—The thirty-seven volume of the proceedings of the American Academy of Arts and Sciences contains the results of an investigation of the decomposition of mercurous chloride by dissolved chlorid, the work of Messrs. T. W. Richards and E. H. Archibald. This decomposition is shown to be considerable if the chlorid solutions are fairly concentrated—a point of considerable importance in the analytical determination of mercury as mercurous chloride. The action is not of a catalytic nature, but a simple oxidation of mercurous chloride; but when a stirrer is set up, the dissolved mercury being supposed to exist in the form of a complex ion represented by the formula HgCl₄, in the solution.

A method for Fe: Ni: Cu: Ag: Au: Pd: Pt; but the method proposed by Anson G. Betts is based on a reaction
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between bromin and phenol in aqueous solution, by which tribromphenol and hydrobromic acid are formed. The reaction takes place instantly and quantitatively. The precipitate of tribromphenol appears if the brine contains as much as 0.002 per cent. of bromin. It was found impossible to precipitate all the bromin and form hydrobromic acid. Electrolysis is suggested as an advantageous method of setting bromin free. If the phenol is pure, the precipitate is crystal-like and filters easily. If cresol is present, the precipitate is tarry. By drying and heating the precipitate, most of the bromin is recovered as hydrobromic acid. The rest is caught by passing the vapors through an alkali solution or a solution of ferrous bromid. Reduction of the precipitate by iron and mineral acid will regenerate the phenol. The process is best carried on by saturating one part of the brine with chlorin and the other part with phenol, and then mixing the two portions. Other organic bodies, such as acetylen, are suggested as suitable for recovering bromin from brine.

A new and simple test for albumin described by Flora C. Fuhs is based on the facts that albumin is coagulated by carbolic acid; equal volumes of non-albuminous urine and a mixture containing a precipitating power of equal equal parts of acid and gopherin form an emulsion which clears up entirely on agitation, leaving a perfectly transparent and highly refractive liquid; and equal volumes of albuminous urines and the solution when mixed produce a white turbidity, which remains in spite of agitation, and does not precipitate on standing or redissolve.

S. Kollit and Edgar F. Smith give an account in the Journal of the American Chemical Society of quantitative determinations of uranium in solutions of the acetate, sulfate, and nitrate. A special table is given of results in the separation of uranium from barium, calcium, magnesium, and zinc. No satisfactory method could be obtained in the attempt to separate it from nickel and cobalt.

The deposits of salts called alkali in Wyoming occupy undrained depressions in geological deposits extending from the Triassic to the present, and range from a few inches to sometimes reaching 15 feet. The larger beds are often covered with water in the spring, whence they have been called lakes. The deposits are also used as a source of gyps. Thealkali smells of hydrogen sulfid and contains the same salts that form the deposit resting upon it. As described by W. C. Knight and E. E. Sisson, these deposits are rarely very pure, but are mixtures of several salts, with alternating layers of sand, salt, and mud. The classes of deposits that carry carbonates in quantity contain as principal salts, sodium carbonate, sulfate, and chlorid. Gypsum occurs, but is not prominent. Traces of potassium, lithium, iron, aluminum, manganese, borates, nitrates, sulfates, and phosphates are often found. Chrisobalite constitutes the greater mass of most of the deposits, and epsomite is abundant. Different deposits vary greatly in composition, and different parts of the same bed show very different proportions of the contained salts.

Difficulty is met in the classification of mineral waters on account of the way they shade into another. Another solution suggested by Prof. E. H. S. Bailey, of the University of Kansas, of designating them according to their predominant ions. Thus he would have: 1. The chloric group, in which chlorids are predominant. 2. The sulfatic group, marked by the predominance of the sulfates. 3. The chlor-sulfate group, in which the chlorid and sulfate ions are about equal. 4. The carbonate group, in which carbonate ions are about equal to the carbonate groups, containing a considerable quantity of the ions of each class. 6. The sulf-hydride group, in which hydrogen sulfide is given off,—the water is commonly called sulfur water. 7. The chalybeate or iron group, which includes also waters containing manganese ions. 8. The special group, or waters which owe their value to some special substance, like lithia or borax. 9. The soft-water group, or waters which contain only a small quantity of mineral substance. More than 90 mineral waters of the State of Kansas are classified under this system.

New Apparatus.—A simple electric thermometer is described by William Duane and Charles A. Long, of the University of Colorado, with which the temperature of a bath can be kept constant to within one one-thousandth of a degree C. for a considerable time. The heat is supplied by an electric current, which in the case of a conducting liquid flows through the liquid itself; and in the case of a non-conducting fluid, flows through wires suspended in the bath. A system of tubes containing a liquid with a large temperature coefficient of expansion is placed in the bath, and by means of a suitable mechanism the expansion of this liquid interrupts or reduces the strength of the heating current when the required temperature has been reached. The making and breaking of the current follow in rapid succession that no perceptible variations occur in consequence of the interruptions.

A new form of electric resistance laboratory furnaces designed by Prof. Holbone, of the Reichsanstalt, Berlin, permits the easy attainment of temperatures up to 1,500° C. by the use of the ordinary 110-volt electric supply. The furnaces are made in two forms, one being adapted for heating crucibles, and the second for heating tubes 44 centimeters in length; but both are alike in principle, the electric current being carried through a resistance coil of platinum or nickel wire, wound around a thin porcelain tube or cylinder. The crucible or substance to be heated is placed within a thickness sometimes reaching 15 feet. The outer side of the coil and the containing vessel is packed with asbestos or powdered quartz. Using nickel, the temperature of the furnace can be regulated with an accuracy of 1,000° C. without damage to the coil, but with platinum it is possible to attain a temperature of 1,500° C. with a current of 14 amperes and 110 volts. It is necessary in the use of these furnaces to include a resistance in the circuit, and to use only half of the maximum current when the heating is first begun. The use of the exterior resistance enables the temperature of the furnace to be registered with ease within somewhat narrow limits. Further advantages claimed for the furnaces are that the separate portions are replaceable when worn out, that the heating spirals can be easily removed and changed to suit special temperatures when required, and that with the tubular form of furnace, the heating of the substance can be carried on in the absence of air and in the presence of any desired gas or gaseous mixture.

An electrical furnace described by S. A. Tucker and H. R. Moody is composed of carbon bricks 12 inches by 4 by 2, luted together with Dixon's stove-polish. The sides are of 6-inch bricks, and a working span of 6 by 4 by 2 inches, and the bricks can be increased or diminished according to the charge
used. The whole is then clamped and held firmly together by iron cross-bars provided with adjustable screws on each end, the bars being insulating from the body of the furnace by strips of asbestos. The end bricks are perforated with 1.5-inch holes containing a collar of asbestos or a small cylinder of clay, through which the electrodes of carbon (1 by 12 inches) pass into the furnace-chamber. Connection is made with these electrodes by copper sleeves lined with copper gauge and tightened with set screws, which at the same time carry copper lugs that hold the flexible cables.

Miscellaneous.—The Electrochemical Society (of America) held its first meeting in Philadelphia, Pa., April 3 to 5, Prof. T. W. Richards presiding. Twenty papers were read and discussed during the sessions, and arrangements were made for the publication of the proceedings.

In his presidential address before the meeting of the Chemical Society in Philadelphia, F. W. Clarke presented as the chief need of chemistry at present a better organization of research. While appreciating the great work done by individuals laboring independently, the speaker thought that collaboration and systematization were urgently required. Laboratories of research, he said, should be established in all civilized countries. Work should be so regulated by conference as to avoid repetition, each worker reenforcing the others. The program of research on the scheme should be to perform the drudgery of science, to carry on the tedious, laborious, elaborate investigations from which the solitary work shrinks, but which are nevertheless essential to the development of chemistry. Brilliant discoveries might be made in the course of these investigations, but incidentally and not as their main purpose.

A large increase has taken place in recent years in the manufacture of artificial graphite in the United States, the product of the year 1901 having amounted, according to the reports of the Geological Survey, to 2,500,000 pounds, as compared with 860,750 pounds in 1900, and 162,385 pounds in 1897, when the commercial production of amorphous charcoal was begun. More than half of the output for 1901 was in the form of graphitized electrodes for use in the manufacture of alkaline and bleaching by electrolytic processes. The rest was employed in the manufacture of points, bullion, crucibles, motor-brushes, crucibles, and dry batteries.

Sodium amalgam was allowed by M. Moissan to act upon ammonium iodid in solution in liquid anhydrous ammonia at a temperature of about —20° C. Under these conditions the sodium amalgam reacted upon the ammonium iodid and became more fluid without the formation of any gas. The sodium iodid formed, together with the excess of sodium, were next removed by liquid ammonia at a temperature of —40°, and then with ether at —85° C. The solid ingot, thus produced, was then placed in a tube kept at —35° C. and connected with a mercury-pump. It was found that a perfect vacuum could be maintained in the apparatus without any gas being given off by the ingot. The temperature was then allowed to rise, when a mixture of ammonia and hydrogen gases in the proportion of two of the former to one of the latter was given off. All these phenomena are in accordance with the theory that the radical NH₂ is actually present in the metallic mass prepared at —35° C.; but M. Moissan believes that this is really not the case, there being a possibility of partial decomposition of the amphoteric hydride formed. He has found that when sodium amalgam reacts with a solution of ammonia in water there is a slow evolution of gas without foaming. If, however, sodium hydrude in solution in sodium furnace by strip of asbestos, there is at once a foaming mass produced, which may last for two or three days.

Quicklime, if pure and free from silicates, is melted only in small quantity and with great difficulty at the highest temperature attainable with the oxyhydrogen blowpipe. It has, however, been found by M. Henri Moissan to be melted with great ease in the electric furnace, when it may be made to boil. On cooling, crystals were found, which belonged to the cubical system; but after keeping for a few months they broke up into other crystals, which acted upon polarized light. The density of the lime was raised from 3.3 to 3.4 by fusion. Since lime forms the basis of the electric furnace, it is of importance to study the effect of heating to high temperature with various substances. The results of reactions with carbon, silicon, boron, titanium, chromium, manganese, iron, nickel, cobalt, and platinum were presented in M. Moissan's paper.

In experiments on the decomposition of hydrogen peroxide on exposure to sunshine, R. T. D. Argy found (a) that the ketone and hydrocarbons of the substance are rapidly affected by exposure to sunshine. When an aqueous solution containing 4 per cent of H₂O₂ was exposed to a flask to a bright sunshine of five days in June, about three-fourths of the hydrogen peroxide decomposed. In open dishes the compound was more rapidly decomposed, and the effect was not dependent— at any rate, to any extent— upon the gamma of the decomposition taking place simultaneously, and it was not an effect of temperature. (b) That the surface of a solution of hydrogen peroxide undergoing this decomposition is capable of discharging negative electrification. (c) That the days in which sunlight decomposes H₂O₂ most rapidly are the days in which the charging action is most pronounced. The conclusion is drawn by the author that the decomposition of hydrogen peroxide by light is a possible source of production of positive and negative ions in the atmosphere.

Experiments are described by J. Matuschek which indicate that the proportion of water present in petroleum contaminated with bituminous products of distillation of lubricants, pencil, hares, etc., is the combustion-point of the petroleum. This increase depends on the quantity of water present. Further, it was found that the regular rise of the flash-point and combustion-point is maintained only up to a certain degree. The regularity ceases as soon as small drops of water begin to form in the mixture during the experiment.

CHILE, a republic in South America. The Congress consists of a Senate of 32 members elected for six years by the provinces, in the proportion of 1 Senator to 3 Deputies. The Chamber of Deputies is composed of 94 members, elected in the proportion of 1 member to every 30,000 people in each department. Every male citizen twenty-one years of age and able to read and write has the right to vote for both Deputies and Senators. The President of the republic is elected indirectly through a college of electors for the term of five years. German Riesco was elected President of the Republic, entered upon office on Sept. 18, 1901, and appointed the following Cabinet: Prime Minister and Minister of the Interior, Ramon Barros Luco; Minister of Foreign Affairs, Armendariz, and Colonela Pino; Minister of Justice and Public In-
The value of imports in 1900 was 128,538,-
142 pesos; of exports, 167,674,635 pesos. The im-
ports of coal were 13,494,960 pesos in value; of
sugar, 6,518,105 pesos; of cotton goods, 6,047,201
pesos; of oils, 3,480,856 pesos; of sacks, 2,983,084
pesos; of woolen stockings, 3,973,401 pesos; of
chintzes, 2,911,745 pesos; of flannels, 2,247,000
pesos; of paper, 2,688,867 pesos; of iron, 2,484,-
502 pesos; of cattle, 2,290,074 pesos; of drugs,
2,192,355 pesos; of coffee, 1,882,720 pesos; of rice,
1,479,806 pesos. The exports of copper were
945,186 pesos in value; of copper, 19,834,365
pesos; of iodine, 4,043,172 pesos; of coal, 3,900,460
pesos; of gold, 2,806,698 pesos; of silver, 2,699,-
116 pesos; of leather, 2,348,053 pesos; of copper
ore, 2,021,267 pesos; of barley, 1,472,061 pesos;
of wool, 1,465,883 pesos; of guano, 1,277,400
pesos; of borate, 1,317,676 pesos; of wheat, 944,-
075 pesos; of manganese ore, 7,614,065 pesos. The
value of mineral products exported was 151,629,-
206 pesos; of agricultural products, 14,704,822
pesos; of reexports, 1,343,607 pesos. The value
in pesos of the trade with different countries in
1900 is given in the following table:

<table>
<thead>
<tr>
<th>Country</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>42,461,949</td>
<td>128,058,317</td>
</tr>
<tr>
<td>Germany</td>
<td>84,325,977</td>
<td>80,397,000</td>
</tr>
<tr>
<td>United States</td>
<td>18,086,308</td>
<td>6,367,345</td>
</tr>
<tr>
<td>France</td>
<td>9,298,260</td>
<td>7,076,156</td>
</tr>
<tr>
<td>Peru</td>
<td>6,718,492</td>
<td>1,753,308</td>
</tr>
<tr>
<td>Argentine Republic</td>
<td>29,011,089</td>
<td>316,592</td>
</tr>
<tr>
<td>Italy</td>
<td>2,040,428</td>
<td>11,170</td>
</tr>
<tr>
<td>Brazil</td>
<td>1,440,170</td>
<td>149,183</td>
</tr>
</tbody>
</table>
pean money markets. In 1894 a loan of £1,835,000 was contracted at 7 per cent.; in 1895, one of £2,000,000 at 6 per cent.; in 1895 one of £1,000,000 at 6 per cent. and one of £19,850,000 at 4 per cent.; £16,000,000 were borrowed at 5 per cent. in 1896 and £16,000,000 more at 4 per cent. in 1898 to pay the last instalment of the Japanese war indemnity. The whole war loan was guaranteed on the salt duties. In 1898 a railroad loan of £2,300,000 was contracted, to pay which the earnings of the railroad were pledged. The Boxer uprising and consequent invasion of Pekin by the powers resulted in more than doubling China's liabilities. An indemnity to be divided among the powers for the expenses of the occupation and damage done to foreign property and injury to foreigners from acts of the Boxers was agreed upon on May 29, 1901.

China promised to pay the sum of 450,000,000 taels, which amounts to $204,000,000. It is a gold debt payable in 39 annual instalments on Jan. 1 of each year, with interest reckoned on 5 per cent. The interest and sinking-fund average 37,009,000 taels, or £5,120,000 per annum. The proportion of the payment of the duties not appropriated for other debts are pledged as security, and the powers agreed that these should be increased to 5 per cent. ad valorem, ultimately to be converted into specific duties, the native customs that are administered by the Maritime Customs, namely, the liikan or transit duty within 16 miles of any of the open ports, are included in the guarantee, and also the salt gabel not otherwise appropriated. A commission at Shanghai receives the assigned revenues each month. The annual amount to be handed over for the payment of duties out of the proceeds of the maritime customs is £5,770,000. The indemnity debt is payable in gold at the exchange rate of 3s. to the tael. It is divided into 5 series: A, 75,000,000 taels, paying from 1902 interest and sinking-fund amounting to 3,829,500 taels; B, 60,000,000 taels, paying 2,400,000 taels interest and from 1911 till 1940 a sinking-fund which increases the annual payment to 3,429,800 taels; C, 150,000,000 taels, paying 6,000,000 taels interest, increased by a sinking-fund from 1915 to 9,384,000 taels; D, 50,000,000 taels, paying 2,000,000 taels interest, increased from 1915 to 11,500,000 taels; E, 115,000,000 taels, paying 4,600,000 taels interest and a sinking-fund from 1932 which increases the annual payment to 15,466,350 taels. For the first nine years of the payment the sinking-fund on all the series amount to 18,829,500 taels per annum; for the next four years, 19,599,300 taels; for the next year, 23,263,300 taels; for the next sixteen years, 24,483,500 taels; for the last nine years, 33,350,150 taels. The payments were so adjusted that the gold debt payments of China would be evenly distributed over the whole period of thirty-nine years, varying little from year to year. The debts incurred before the indemnity debt and secured on the imperial customs and liikan required for 1902 the remittance of 23,000,000 taels, making with the indemnity debt a total payment of 49,299,500 taels. The payment of interest and sinking-fund on the existing debt decreases to 22,800,000 taels in 1811, to 19,400,000 taels in 1815, to 18,500,000 taels in 1916, to 7,500,000 taels in 1932, and will be 5,000,000 taels in 1940, when the last instalment of the indemnity is paid. The total annual charge for foreign debt in that year will be £4,150,150. In no year does it reach 43,000,000 taels. This scheme was presented by the Chinese at the peace conference as the easiest for China to bear, and was accepted by the ministers of the allied powers. The ways and means of finding gold for the payment of nearly 19,000,000 taels in addition to between 23,000,000 and 24,000,000 taels required each year for the existing debt the ministers did not suggest, except that in the commercial treaties it to be concluded a revision of the tariff was promised. They insisted that the indemnity should be reckoned in gold at the current rate of 3s. to the tael. The immediate increase in the maritime customs duties under the treaty to an effective 5 per cent. ad valorem was calculated by experts to give an increase of 2,500,000 taels in the yield. The salt gabel and the native customs, duties to be collected from the junk trade, were considered uncertain resources, capable of producing 11,000,000 taels a year if it could be collected. The provincial treasuries, however, would be deprived of a large proportion of their accustomed revenues, and the result would be either increased levies by the mandarins or reduced remittances to Pekin. The Chinese Government notified the viceroyals that till 1911 they would have to send additional annual remittances, distributed in fixed sums among the provinces, proportioned according to the valuation of the additional sums to be obtained was not suggested. The Yangtse viceroyals memorialized the throne, stating that their existing revenues were insufficient to meet the increased demands of the new debt, inasmuch as part is provided for by increased import duties and the transfer of native customs to the imperial Maritime Customs. The Government resorted to sales of official rank throughout the empire as the readiest means of obtaining an immediate addition to the revenue, and efforts were made to collect arrears of the grain tax. Various schemes of taxation were discussed, but an increase of the foreign customs to 10 or 15 per cent. offered the only hope of ultimate relief. Meanwhile the viceroyals and governors endeavored to scrimp additional revenues out of the provinces to satisfy the fresh demands, producing misery and discontent, encountering resistance and evasion, and provoking revolt. The immediate pressure of the increased foreign debt was to cause a fall of 10 per cent. in the price of silver, increasing in that proportion the amount of the entire foreign debt and diminishing the income from it by checking foreign trade. There has been a steady balance of trade against China for a series of years, ranging from 10,000,000 to 35,000,000 taels, notwithstanding which the influx of silver bullion has been constantly going on at the rate of about 2,500,000 taels a year. Before the Japanese war a much larger amount of silver specie was absorbed every year. The annual export of gold from China, according to official reports, is 7,000,000 or 8,000,000 taels. The export trade was depressed, rather than stimulated by the drop in silver. The cotton industry at the treaty ports collapsed. The disturbance of trade and exchange created alarm among international bankers and financiers. If the first pressure of the indemnity debt stopped imports, China would have to ship silver to pay the instalments. The silver market was unaccountably disturbed before such a movement had taken place, and when it did the effect would be disastrous.

Production and Industry.—The value of the imports for consumption in 1898 was reported by the Maritime Customs at 284,748,456 haikwan
CHINA.

The values of imports from and exports to different countries and ports in 1900 were as follows:

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong-Kong</td>
<td>95,847,000</td>
<td>68,800,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>45,877,000</td>
<td>29,659,000</td>
</tr>
<tr>
<td>Japan</td>
<td>26,340,000</td>
<td>16,915,000</td>
</tr>
<tr>
<td>Straits Settlements</td>
<td>2,325,000</td>
<td>2,945,000</td>
</tr>
<tr>
<td>Macao</td>
<td>26,000,000</td>
<td>4,710,000</td>
</tr>
<tr>
<td>East India</td>
<td>14,215,000</td>
<td>5,985,000</td>
</tr>
<tr>
<td>Siberia</td>
<td>605,000</td>
<td>650,000</td>
</tr>
<tr>
<td>Russia in Europe</td>
<td>9,107,000</td>
<td>14,917,000</td>
</tr>
<tr>
<td>United States</td>
<td>18,749,000</td>
<td>14,782,000</td>
</tr>
<tr>
<td>British America</td>
<td>604,000</td>
<td>650,000</td>
</tr>
<tr>
<td>Other countries</td>
<td>2,300,000</td>
<td>4,170,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>228,190,000</strong></td>
<td><strong>158,967,000</strong></td>
</tr>
</tbody>
</table>

The re-exports of foreign merchandise amounted to 11,069,000. The shares of the different treaty ports in the import and export trade are given in the following table:

<table>
<thead>
<tr>
<th>PORTS</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai</td>
<td>120,900,000</td>
<td>79,190,000</td>
</tr>
<tr>
<td>Kowloon</td>
<td>12,388,000</td>
<td>13,500,000</td>
</tr>
<tr>
<td>Canton</td>
<td>15,861,000</td>
<td>18,502,000</td>
</tr>
<tr>
<td>Swatow</td>
<td>11,215,000</td>
<td>14,519,000</td>
</tr>
<tr>
<td>Anping</td>
<td>11,076,000</td>
<td>1,545,000</td>
</tr>
<tr>
<td>Foochow</td>
<td>4,950,000</td>
<td>8,300,000</td>
</tr>
<tr>
<td>Lepoo</td>
<td>8,949,000</td>
<td>2,527,000</td>
</tr>
<tr>
<td>Kweihai</td>
<td>2,988,000</td>
<td>2,619,000</td>
</tr>
<tr>
<td>Hangchau</td>
<td>932,000</td>
<td>8,150,000</td>
</tr>
<tr>
<td>Tientsin</td>
<td>2,705,000</td>
<td>1,020,000</td>
</tr>
<tr>
<td>Weihai</td>
<td>4,450,000</td>
<td>1,975,000</td>
</tr>
<tr>
<td>Fokow</td>
<td>2,000,000</td>
<td>1,798,000</td>
</tr>
<tr>
<td>Kingchau</td>
<td>2,106,000</td>
<td>1,828,000</td>
</tr>
<tr>
<td>Other ports</td>
<td>3,516,000</td>
<td>1,910,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>228,190,000</strong></td>
<td><strong>158,967,000</strong></td>
</tr>
</tbody>
</table>

In northern China wheat, millet, corn, barley, peas, and beans are grown, and in the south rice, sugar, cotton, and indigo. Tea is raised in the southern and western parts, opium in the west, and silk in all the provinces, but especially in Shantung, Kuangtung, Chekiang, and Kiangsu. Coal is found in every province and has been mined for several years at Kaiping. At Poshan, in Shantung, are also productive mines. A company has been formed to work the anthracite fields of Shansi, which cover 13,500 square miles, while in the western part of that province bituminous coal is equally abundant. Coal is mined already in Hunan, where there are 21,700 square miles of anthracite and bituminous deposits, and in Szechuan, where there are enormous beds. Iron is mined in Shansi and Manchuria, copper and some tin, silver, and lead in Yunnan. The quantity of teak imported in 1890 was 3,54,324 piculs of 1,334 pounds, of which 665,256 piculs went to Russia, 255,156 piculs to the United States, 119,328 piculs to Hong-Kong, 135,139 piculs to Great Britain, and 45,582 piculs to Australia.

Navigation.—The number of vessels entered and cleared at Chinese ports during 1900 was 89,230, of 40,807,242 tons, of which 67,576, of 39,553,788 tons, were steamers. Of the total number 22,818, of 23,052,450 tons, were British; 34,129, of 7,864,217 tons, were Chinese; 3,627, of 4,032,147 tons, were German; 4,917, of 3,871,559 tons, were Japanese; 978, of 664,987 tons, were French; and 1,311, of 474,479 tons, were American.

Railroads and Telegraphs.—A railroad connecting Pekin with Tientsin and running along the coast to Shanhaikwan and thence to Chenchau, on the Liaotung Gulf, with branches to Tienciao and to the Nan-Pao coal-mines, has a total length of 404 miles. This line is connected with the Russian line which terminates at Niuchuang and with the line to Port Arthur. The Russo-Chinese Manchurian railroad from Harbin to Port Arthur has a length of 650 miles. The line across Manchuria to Vladivostok, 950 miles, the eastern terminal section of the Russian Trans-Siberian Railroad, has been completed. A line runs southwest from Pekin to Patoting-Fu, 88 miles, and is being continued to the Yangtze river at Hankow. The Germans have built a railroad from Tsintau, near Kiaochoah, to Tsinau, whence it will be continued to Yenchau to meet a line built from Kiaochoah direct to the latter place. American engineers have undertaken to construct a railroad from Hankau to Canton, with a branch from Yochau to the Pingshiang coal-mines in Honan. A railroad 12 miles in length connects Shanghai with Wusung. The French have received a concession for railroads from Tongquin in Kwangsi, Kwangai, and Kwangtung, running from Laoksi to Yunnan-Fu, from Langson to Longchau, and from Nanning-Fu to Pakhooi. British concessionaires have undertaken to build lines from Yuen-Shih to Suchau, Chinkiang, and Nankin, and to Hangchau and Nipko and from Chingtu to Wuchau and Canton.

Telegraph-lines connect all the chief cities of China and join the Siberian overland line to Europe and the Indian system as well as the cable. Their total length is a little less than 14,000 miles.

Return of the Court to Pekin.—The imperial court entered the Forbidden City, restored and renovated so that outwardly there were no marks of the ruin and destruction wrought by the allies, on Jan. 7, 1902. Contrary to all precedents, foreigners were allowed to witness the royal entry, which was attended with gorgeous pageantry and elaborate ceremonial, and natives too, who have been forbidden by immemorial usage to view the passage of royal personages through the streets, were permitted to witness the spectacle and gaze on their rulers. Yuan-Shih-Kai, Viceroy of Pechili, with 12,000 trained troops restored and maintained order where under foreign control strife and confusion reigned. He added 8,000 to the force, and recruits of the best
physical and moral qualities offered themselves freely. The Chinese arsenals were kept busy turning out war material. The people as well as the Government were bent on repairing the military shambles and making the Empire whole. The foreign ministers were formally received in audience by the Emperor on Jan. 22, in the innermost of the great halls of the Forbidden City. Afterward the Empress Dowager gave a reception to the ladies of the legations.

In the provinces where Tung-Fuh-Si and Prince Tuan were still at large Belgian missionaries and nuns, Christians were murdered. A royal edict was at once issued ordering that Tung-Fuh-Si and should be beheaded according to the terms of the protocol. The chief minister had been arrested as soon as Li Tung-Fen, when the foreign diplomats, except the Russian representative, had tried to include in the list of proscribed officials, but who, although no friend of foreigners, had kept the Chinese foreign movement under control and saved the foreigners in Pekin from massacre and, when orders were issued for the extermination of foreigners throughout China, had by secret instructions sustained the Yangtse viceroy, in his attempt to disregard these edicts. The foreign military authorities still held Tientsin and administered the railroad between that city and Pekin. This action determined the Russians to prolong their occupation of Niuchwang and the railroad leading to that port. An American and a British war- vessel went to Niuchwang, and disturbances occurred between American seamen and Russian soldiers, of which the Russian minister complained.

The indemnity claims of the powers amounted to 462,000,000 taels, 12,000,000 taels over the aggregate. The American and Russian ministers proposed a pro rata reduction, to which the others agreed excepting the British and Japanese ministers, who stated that their claims had been reduced to minimum after an official investigation of each item. An instalment of the indemnity was due, and was tendered by the Chinese officials to the bankers' commission in Shanghai as provided in the protocol; but the commission would not accept it because the foreign governments were unable to agree upon the terms of division. At a meeting of military commissions at Tientsin on Jan. 22 it was agreed that the garrisons could be reduced in the spring. The Russian general declined to express an opinion, the Russian forces having already withdrawn from Pechili in 1901, but refused to attend, regarding the question as a political one to be decided by the governments. The Japanese commander informed the others that Japan had already begun to withdraw her troops without regard to the action of other nations. The combined force at Tientsin had an effective strength of 4,000 men.

On Feb. 1 an imperial edict was issued legalizing marriages between Manchus and Chinese and forbidding the practise of binding the feet of girls. The imperial clan and the generals of the Eight Banners were ordered to select young Manchus to go abroad to study foreign branches of knowledge. Hundreds of students, coming from every province, were sent to Japan to obtain the military, administrative, and scientific knowledge which that nation had borrowed from the West, thereby winning an independent position among the powers that preyed upon China.

The Peace Agreement between Great Britain and Japan was signed at London on Jan. 30, 1902, in the following terms:

The governments of Great Britain and Japan, actuated solely by a desire to maintain the status quo and general peace in the extreme East, being moreover specially interested in maintaining the independence and territorial integrity of the Empire of China and the Empire of Korea, and in securing equal opportunities in those countries for the commerce and industry of all nations, hereby agree as follow:

I. The high contracting parties, having mutually recognized the independence of China and of Korea, declare themselves to be entirely uninfluenced by any aggressive tendencies in either country. Having in view, however, their special interests, of which those of Great Britain relate principally to China, while Japan, in addition to the interests which she possesses in China, is interested in a peculiar degree politically, as well as commercially and industrially, in Korea, the high contracting parties recognize that it will be admissible for either of them to take such measures as may be indispensable in order to safeguard those interests if threatened either by the aggressive action of any other power or by disturbances arising in China or Korea, and necessitating the intervention of either of the high contracting parties for the protection of the lives and property of its subjects.

II. If either Great Britain or Japan, in the defense of their respective interests as described, should become involved in war with another power, the other high contracting party will maintain a strict neutrality, and use its efforts to prevent other powers from joining in hostilities against its ally.

III. If in the above event any other power or powers should join in hostilities against that ally, the other high contracting party will come to its assistance and will in such case have war in common, and make peace in mutual agreement with it.

IV. The high contracting parties agree that neither of them will, without consulting the other, enter into separate arrangements with another power to the prejudice of the interests above described.

V. Whenever in the opinion of either Great Britain or Japan, the above-mentioned interests are in jeopardy, the two governments will communicate with one another fully and frankly.

VI. The peace will come into effect immediately after the date of its signature, and remain in force for five years from that date. In case neither of the high contracting parties should have need of the assistance which the other may be entitled to give, then the expiration of the said five years the intention of terminating it, it shall remain binding until the expiration of one year from the day on which either of the high contracting parties shall have denounced it. But if, when the date fixed for its expiration arrives, either ally is actually engaged in war, the alliance shall ipso facto continue until peace is concluded.

In a covering letter the Marquis of Lansdowne stated that the two powers had been in close and uninterrupted communication throughout the troubles and complications consequent upon the Boxer outbreak and the attack upon the legations, and each desired that the integrity and independence of the Chinese Empire should be preserved and that there should be no disturbance of the territorial status quo either in China or in the adjoining regions; that all nations should, within those regions as well as within the limit. An agreement between Great Britain and Japan was signed at
CHINA.

the future. Having discovered that their far Eastern policy was identical, each side expressed the desire that their common policy should find expression in an international contract of binding validity. The British Secretary of State for Foreign Affairs explained that his Government had been largely influenced in their decision to enter into this important contract by the conviction that it contains no provisions which can be regarded as an indication of aggressive or self-seeking tendencies in the regions to which it applies. It has been concluded purely as a measure of precaution, to be invoked, should occasion arise, in the defense of important British interests. It in no way threatens the present position or the legitimate interests of other powers.

The allied governments of France and Russia on March 18 sent an identical note to the powers which signed the Pekin protocol of Sept. 7, 1901, wherein they expressed themselves fully satisfied with the Anglo-Japanese convention concluded with the object of insuring the status quo and general peace in the far East and of maintaining the independence of China and Korea, which are guaranteed by the treaty of all nations, finding therein an affirmation of the essential principles which they themselves on more than one occasion have declared to constitute the basis of their policy. The two governments considered that respect for these principles is at the same time a guarantee for their special interests in the far East. As long as they did, on their part, to consider the case in which either aggressive action of third powers or fresh troubles in China, raising once more the question of the independence and free development of that power, might become a menace to their own interests, the two allied governments reserve the right to consider eventually the means of insuring the defense of their interests.

The British Government suddenly changed its plans with regard to Wei-Hai-Wei. The work of fortification was stopped. Military and naval authorities pronounced the place valueless as a strategical base. The Government was transferred to the Colonial Office, with the intention of making it a sanatorium for officers of the army and navy.

The Manchurian Agreement.—Russia had 40,000 troops in Manchuria in the spring of 1902, and the Trans-Siberian Railroad was still kept busy transporting soldiers and military stores and munitions of war to the East. When the Tungus bandits, hunted out of Manchuria by the Russians, crossed into Mongolia and committed depredations in the vicinity of Jehol, the Russian troops pursued and dispersed them. The negotiations regarding the evacuation of Manchuria by Russia, discontinued when Li-Hung-Chang died, were resumed with Yung-Lu when the court returned to Peking. It was understood which is the agent of the Russian Government in railroad and financial matters appertaining to Manchuria and China, negotiated for exclusive railroad and mining rights in Manchuria. Secretary Hay on Feb. 1 sent a note to the Russian and Chinese governments protesting against such an arrangement as constituting a monopoly which violates treaties made by China with the foreign powers, affecting the rights of American citizens, restricting their rightful trade and exposing it to being discriminated against; moreover, impairing China's ability to meet her international obligations, which would be further diminished when other nations demand and obtain equal advantages in other parts of the empire, wrecking the policy of equal treatment of all nations respecting commerce and navigation; and on the other hand, conflicting with the repeated assurances of the Russian Government that it intended to follow the policy of the open door, as advocated by the Government of the United States and accepted by all the treaty powers having commercial interests in China. The English and the Japanese made representations to the Chinese Government of similar purport. The Russian minister satisfied the United States Government with verbal assurances that the concessions were sought without the knowledge of his Government, and in so far as they conflicted with its avowed policy of an open door in Manchuria they would be vetoed.

The Chinese Government was said to have given a promise to Russia while Li-Hung-Chang was conducting negotiations that if any foreign military officers were to be employed to instruct and drill Chinese troops in northern China they should be Russian officers. The Germans urged that if any foreign instructors were needed they should be German. Chinese officers for men were even more eager to build up an efficient Chinese army than they were before the Boxer uprising, but they were also more averse than ever before to have foreign influence of any Chinese troops. Japanese military experts were therefore employed as translators and interpreters of Japanese treaties on modern military science, who were also so far as needful instructors and advisers of the Chinese officers. Japanese traders swarmed in Manchuria, who probably served their Government at times as secret agents and informers.

Russia was willing to give up the invidious privilege which the secret promise of Li-Hung-Chang conferred. Accordingly M. Lessar obtained from Prince Ching, as president of the Foreign Office, a written undertaking that in future no foreigners of any nationality should be employed in the Peiyang, or northern Chinese, naval or military forces. Yuan-Shih-Kai, who as Viceroy of Pechil is commander-in-chief of the Peiyang squadron and army, refused to be bound by this undertaking, given without his knowledge and consent. The foreign mining companies and the Russo-Chinese Bank were broken off after the presentation of the American note. The Manchurian convention was finally concluded and signed by M. Lessar and Prince Ching and Wang-Wen-Shao on April 8. The objectionable features of the draft convention withdrawn by the Russian Government a year before were removed. The text of the new one was submitted to the American and the British and Japanese governments for approval. It was admitted that the sovereignty of China and the treaty rights of other nations were not infringed. The first article states that the Emperor of Russia, desirous of giving a new proof of his love of peace and sentiments of friendship for the Emperor of China, notes that from different points of Manchuria along the frontier first attacks were made against the peaceful Russian population, consents to the reestablishment of Chinese authority in Manchuria, which remains an integral portion of the Chinese Empire, and restores to China the right to exercise sovereign and administrative powers as before the occupation by Russian troops. The Chinese Government in the second article agrees to abide by the contract made with the Russo-Chinese Bank on Aug. 27, 1896, and in conformity therewith, on resuming possession of sover-
eign and administrative powers in Manchuria, to protect in every way the railroad and staff and safeguard all Russian subjects living in Manchuria, together with the enterprises established by them. Russia, in view of these obligations assumed by China, consents on its part, in the event of there being no trouble whatsoever and if the conduct of other powers should not oppose obstacles thereto, to withdraw gradually all Russian troops from Manchuria within six months from the signing of the convention from the southwestern part of Mukden province as far as the Liao river, at the same time restoring the Shanhaikwan, Niunchuan and Siminling Railroad subject to certain conditions; during the six months following from the rest of Mukden province and from the province of Kirin; and during the next six months from the province of Heilung-Kiang. Until the evacuation is completed the number of Chinese troops to be kept in Manchuria and the military stations must be arranged with the Russian commander, and in the fourth article China engages not to increase the garrisons beyond the agreed limits. China ought not to exterminate brigands and pacify the country. After complete evacuation China will have the right to determine whether the number shall be increased or decreased, but not increased. Unlawful assembly of the Peiho river, Russia, since the maintenance of an excessive number of Chinese troops would necessitate the augmentation of the Russian troops in the adjacent districts, causing an increased military expenditure of the advantage of both countries. For the maintenance of order in the interior outside of the territory ceded to the Chinese Eastern Railroad Company the provincial military governors may raise a Chinese gendarmerie, mounted and foot, to consist exclusively of Chinese subjects. The conditions on which Russia consented to restore the Shanhaikwan Railroad, which had been occupied by Russian troops since the end of September, 1900, were that China should undertake the sole responsibility of guarding the railroad and not invite any other power to undertake or take part in the defense, construction, or working of the railroad, nor permit any power to occupy the territory restored by Russia; that the railroad shall be managed according to the Anglo-Chinese agreement of April 16, 1899, and the contract of Sept. 28, 1898, with the company, China strictly observing the obligations of the company not to take possession of the railroad and undertaking not to part with it in any way whatsoever; that if China should seek to extend the railroads into southern Manchuria, or construct branch lines, or to build a bridge across the Liao river, or to transfer the Shanhaikwan station, a previous understanding must be reached with Russia. China agreed to reimburse Russia for the expenses of repairing and operating the railroad. The convention went into force on the day of signing. It was understood that Niuchwang would be restored to the Chinese authorities as soon as the powers withdrew from Tientsin, and the railroad as soon as the Shanhaikwan, Tientsin and Pekin Railroad was handed over by the other powers.

The English delayed the restitution of the branch of the northern railroad held by them because Russia would not immediately surrender control of the railroad. The Chinese refused to ratify the Manchurian agreement or surrender the railroad beyond the Great Wall. Subsequently it was announced that the evacuation of Manchuria would begin on Oct. 8. Yuan-Shih-Kai drew up a plan for the government of Manchuria by a viceroy and two governors, with Chinese officials associated with the Manchus. He proposed to create a new province of the Ordos country and parts of Kansu and Shensi with the object of strengthening the border. Russian influence and trade increased in Mongolia as rapidly as in Manchuria, and relations have been established between the Russian Government and the native authorities of Tibet.

Evacuation of Tientsin.—The great commercial city of northern China and official residence of the Viceroy of the capital province was still in the military occupation of the allied forces and governed by an international provisional Government. Lawlessness and brigandage were rife in the district. The 4000 men who although were no better able to preserve order than the army of Count Waldersche had been in the city and district of Pekin, which became quiet at once when the Chinese soldiery resumed the task. The provisional Government paid a part of the native customs over to the Maritime Customs, and these payments, 700,000 taels per annum, the fiscal from which the Chinese authorities ought to exterminate brigands and pacify the country. After complete evacuation China will have the right to determine whether the number shall be increased or decreased, but not increased. Unlawful assembly of the Peiho river, Russia, since the maintenance of an excessive number of Chinese troops would necessitate the augmentation of the Russian troops in the adjacent districts, causing an increased military expenditure of the advantage of both countries. For the maintenance of order in the interior outside of the territory ceded to the Chinese Eastern Railroad Company the provincial military governors may raise a Chinese gendarmerie, mounted and foot, to consist exclusively of Chinese subjects. The conditions on which Russia consented to restore the Shanhaikwan Railroad, which had been occupied by Russian troops since the end of September, 1900, were that China should undertake the sole responsibility of guarding the railroad and not invite any other power to undertake or take part in the defense, construction, or working of the railroad, nor permit any power to occupy the territory restored by Russia; that the railroad shall be managed according to the Anglo-Chinese agreement of April 16, 1899, and the contract of Sept. 28, 1898, with the company, China strictly observing the obligations of the company not to take possession of the railroad and undertaking not to part with it in any way whatsoever; that if China should seek to extend the railroads into southern Manchuria, or construct branch lines, or to build a bridge across the Liao river, or to transfer the Shanhaikwan station, a previous understanding must be reached with Russia. China agreed to reimburse Russia for the expenses of repairing and operating the railroad. The convention went into force on the day of signing. It was understood that Niuchwang would be restored to the Chinese authorities as soon as the powers withdrew from Tientsin, and the railroad as soon as the Shanhaikwan, Tientsin and Pekin Railroad was handed over by the other powers.

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CHINA.

By obtaining a similar concession from the provincial authorities, which, however, the Imperial Government had refused to grant, the French commanders at Tientsin decided that the continuance of the provisional Government was necessary to maintain communication with Pekin. The negotiations at Peking then had another conference and agreed in principle to the restoration of the city to the Chinese. On April 12 the allied commanders agreed upon conditions for abolishing the provisional Government as soon as the forts were destroyed or by July 1 at the latest. The Chinese Government must undertake not to resist the taking over by any of the forces between Pekin and Taku and Shanhaikwan, not to fortify the native city of Tientsin or rebuild the wall, and not to keep a garrison there or a police force exceeding 2,500 men, or to monopolize the carriage and in the hills west of Pekin. Only one Chinese war-vessel shall be at Taku at a time, and no masts or torpedoes shall be placed in the Peiho river. For the restoration of the railroad the time was set. It was worked under British military control, having when the foreign forces entered Pehelil been operated by the Russians, who at first, then taken over by the Germans, and finally transferred to the British, who claimed the right to guard and manage the line because British capital had built it and a British staff was on hand. Conditions for the transfer to the Chinese were negotiated with the British minister. The British and Chinese corporation applied to be made agents for the purchase of all railroad material for the northern railways, but the Chinese Government insisted on having liberty to buy by open tender. Yuan-Shih-Kai and Hu-Yu-Fen signed an agreement with Sir Edward Grey, in which the minister stated that any extension of the line or extensions within 80 miles of the existing line shall be built only by the Imperial Chinese Railroad Administration. Railroads from Tungchau to Tientsin, from Pekin to the Great Wall, and from Tientsin to Paoting-Fu were specially mentioned. The agreement required the ratification of the powers, nearly all of which objected strenuously. If the Chinese Government needed funds to build the branches and extensions it was stipulated that it could only apply to the British and Chinese corporation. The agreement was signed without the knowledge of the Foreign Office. The Belgians were the first to lodge a complaint, Li-Hung-Chang on April 9, 1901, having given an undertaking that the Tientsin and Paoting-Fu line, if built, should be constructed by the Pekin and Hankow Railroad Syndicate. Americans and Frenchmen were interested in this project. Russia raised an objection to the construction of the Tientsin and Paoting-Fu line, which would be built under British auspices as a violation of engagements of the Chinese Government, as it was also of the Anglo-Russian railroad agreement, but the Chinese Government would not be evacuated if the British persisted in this plan to control the northern railways. The United States and the other powers cowed in the face of the threat. The Foreign Office memorialized the Throne, blaming Yuan-Shih-Kai and Hu-Yu-Fen, and the Board of Censors punished those officials by reducing their rank. The agreement, which the Chinese Government had duly signed, was presented to the foreign ministers for their assent. It was modified afterward by a concession made by Great Britain to Russia that, if the line from Pekin to the Great Wall is built, it shall be done with Chinese capital only and shall not be mortgaged to foreigners. That there should be no military directors on the Tientsin Railroad Board was also demanded, and when England would not give way on this point the Russian minister notified the Chinese Government that if any military directors are appointed in the administration of any part of the northern railroads they shall in every case include a Russian. Confronted with this alternative, England gave way, and Germany and Japan consented that there should be no military directors. The Pekin, Tientsin and Shanhaikwan Railroad, as well as the other northern railroad from Shanhaikwan to Noda, is now the property of the Chinese Government, but have been managed by English officials in the interest of the English bondholders. The dispute between England and Russia, which nearly led to a clash at arms in the spring of 1901, regarding a concession of land in Tientsin to the Russian trading community that was claimed by the British for a railroad line that went to Harbin, Detring, the Commissioner of Customs, for arbitration. The Chinese Government found it impossible to accept the conditions for the restoration of Tientsin. There were no Chinese garrisons nor soldiers in the area where the garrisons were forbidden to increase. The commanders yielded to the demands of the Vicerey to the extent of allowing him a body-guard of 300 men; but with this force and the 2,500 police he could not undertake to preserve order in one of the wealthiest and most populous parts of China. Foreign soldiers were at liberty to go to and fro at will and on a river crowded with boats and infested with pirates. Fresh armed intervention must necessarily ensue, and it was also right of the Chinese authorities to arrest foreign lawbreakers within their jurisdiction and would allow more than one Chinese war-vessel at Pehel, and they agreed to restore the private property seized for the accommodation of the foreign soldiery. The rest of the conditions they persisted in maintaining, although it was a clear breach of the treaty of peace to impose any new conditions, as it was for the international troops to retain possession after Sept. 22, 1901, the date fixed for the evacuation. The Americans had already withdrawn from the military provisional Government. The Japanese wished to withdraw, but felt constrained to support the British commander, who as senior officer was chiefly responsible for the difficulty, although the German commander was even more insistent upon upholding the hard terms. On June 18 Russia announced her withdrawal from the Tientsin foreign Government, as she would not be a party to imposing new conditions. France this time did not follow the lead of Russia, and was left with England, Germany, Italy, and Japan to bear the brunt. China in June proposed a scheme for a line from Shantung to Tientsin thwarted. Russia announced that BANCHURIA would not be
and a restitution of the city and district. No salt was made, no banks were opened, little trade was done. The military commanders granted commercial concessions to members of their official staffs which will be binding on the Chinese Government for sixty years, and confiscated for the benefit of foreigners valuable lands and buildings, giving small remuneration to owners. The Japanese minister sought to remove the inhibition of Chinese troops in the Tientsin district, of which the British as well as the Russian minister had expressed disapproval, though all three originally voted with the three other ministers for the sake of unanimity. The United States used its good offices effectively, and, with the support of England, Japan, and Russia, obtained the elimination of the obnoxious conditions. The area of over 1,000 square miles in which the Chinese could have no military force was reduced to about 50 square miles, a circle with a radius of 6 miles, and there is no restriction to the number of police that can be employed in this smaller district. All the numerous concessions dealt out by the provisional Government were declared null and void. The provisional Government during its existence destroyed Taku and the forts on the coast as far as Shanhaikwan, replaced the wall of Tientsin with a boulevard, did much for the sanitation of the city, suppressed piracy on the Peho to a great extent, and began and provided for the completion of the regulation of that river which will render it navigable for seagoing vessels. The English restored the Peking and Shanhaiwan Railroad privileges to the Chinese in the beginning of October, after the Russians had surrendered the railroad to Niu-chwang and begun the evacuation of Manchuria south of the Liao river.

The Chinese Government and the Yangtze viceroy pressed for the withdrawal of the foreign garrisons at Shanghai. The British posted a garrison there during the Boxer troubles, and because they did so the French sent one, and then the Japanese, and lastly the Germans. Each garrison was about 200 strong. The Nankin Viceroy Voeid of garrisons, though their presence scarcely helped him in his efforts to hem in the foreign movement and prevent a rising in the Yangtse valley. After the peace, and still more after the expiration of the Tientsin occupation, the center of the Boxer movement, the continuance of the foreign garrisons was a humiliating slight to the Yangtze viceroy. The French and the British and the Japanese were willing to retire their troops at once, but the Germans were not inclined to move so quickly. The German military authorities planned to keep a brigade in China of 3,300 men, only 1,500 less than in 1901, and ordered 800 to be stationed at Shanghai, 400 at Tsingtau, 300 at Pekin, and 1,300 were kept at Tientsin until the evacuation. England, France, and Japan pressed willingness to leave Shanghai, and proposed a simultaneous withdrawal of the foreign forces. The Germans complained, when the board to manage the regulation of the Whangpu, or Shanghai, river was elected, that owing to an Anglo-Japanese coalition only one German was appointed, reducing them, notwithstanding the importance of their shipping and commerce in the Yangtse, to the same position as the Danes and Belgians, while the Americans, French, and Japanese had 2 members respectively and the English 5. The Nanking Viceroy, Liu-Kun-yi, had the great advantage to call in all the exports from the Taotai of Shanghai and the commissioner of customs, but at first he declined, resenting the omission to consult him in the matter and because he considered that the consanguine schermshe under international control was a violation of China's sovereign rights.

**New Commercial Treaty.**—The financial question resulting from the heavy indemnity exacted by the powers was the most difficult and expressing one that confronted Chinese statesmen. Among various expedients, mostly trivial or futile, the most important was a house tax, which could not be generally applied at once without provoking rebellion. In Shanghai, Wuchang, Canton, and other large cities the authorities attempted to introduce it gradually, levying it in the beginning on property paying high rents. Increased salt and land taxes were imposed sporadically and without sufficient sanction. All attempts to raise revenue failed. The United States Government repaid to China $516,000, the value of silver bullion seized by United States troops in the salt yamen at Tientsin. The Russians returned the salt heaps they had seized, having at no time been able to sell any of the salt because the Chinese were forbidden by their Government to buy it from the Russians.

The negotiation of a new commercial treaty was undertaken by the Government with the existing treaty and nearly all commercial arrangements with China were originally made. Sir James L. Mackay was appointed British commissioner, and Sheng-Ta-jen and Lu-Hai-huan were the Chinese commissioners. The subjects of negotiation included the registration and protection of trade-marks, a uniform national currency, extension of the treaty, the importation of foreign salt, free movement of native grain within the limits of the empire, the right of permanent residence in the interior for commercial purposes, the improvement of navigable waterways, increased transit facilities for exports, the definition of the area free of likin at treaty ports, reform of the Mixed Court at Shanghai, provision for a higher tribunal for civil suits, amendment of the inland navigation rules, definition of the liability of Chinese shareholders in foreign companies, amendment of the Chinese Postage Tariff, the payment of postal and telegraph services, substitution of taxes for the likin duties on native opium, opening of new treaty ports, and general facilities for trade. Articles were signed with British, French, German, and Japanese commissioners studied the question of the new provisonal customs tariff, while Sir J. L. Mackay was urged on the Chinese Government the advisability of abolishing likin barriers. Unexpected objections came from Manchester merchants and others in the China trade who have ceaselessly pressed for this reform, but now reckoned the difficulties and delays in carrying it out and the probable diminution of profits, as it was contingent on an increase of the import duties to 15 per cent. They also feared the competition of native yarns and piece goods and of other native manufactures if these were freed from likin. To abolish the whole system of likin barriers was a stupendous task, as an army of officials is employed in the collection and most of the public revenues are drawn from likin, collected from native as well as from foreign goods. It was likin in addition to the trade of China. American and Russian merchants objected to trebling import duties for the sake of suppressing likin, which in north China, where
most of the American trade is, does not weigh heavily on commerce. The total collections of duties and kindred taxes on imports and exports were estimated by the Chinese commissioners at 44,000,000 taels, of which less than 17,000,000 taels reaches the Government. Lixin is collected at innumerable barriers scattered without system along the chief trade routes of the interior, which may be set up at will by the local authorities. The abuses inseparable from the collection of lixin are more onerous than the payment itself. At each barrier goods are delayed and examined, giving the officials an opportunity to squeeze bribes and fees in addition to the lixin, or when no lixin is due, as on imports that have paid 21 per cent. in addition to customs duty at the port of entry, and are thereby free of lixin under the treaty. Owing to the uncertainty and irregularity in the cost and time of transit the trade in foreign goods can not be developed in the interior, while the high duties paid on exports that pass many barriers are fatal to the export trade. There is no limit to the amount of tax payable at one barrier, but there is none to the number of barriers that may be set up. The revision of the existing provisional tariff so as to produce an equitable revenue was not done before the protocol of Sept. 7, 1901, was interrupted by the Chinese commissioners in consequence of the further fall in silver, which made the specific duties already arranged less than 43 per cent. ad valorem. The old duties, calculated on a basis of 5 per cent. ad valorem according to the prices current in 1858 yielded but little over 3 per cent. tax. The result was that the Chinese Government was compelled to make to raise gold for the indemnity caused a further break in the silver market. The gold value of the taels fell to 26.76, increasing the burden of the indemnity by 20 per cent. The enhancement of the prices of foreign commodities in China was disastrous to the import trade. The Chinese Government of its own accord decided to reduce the duty on tea for export, which has been about 40 per cent. of the present value of tea, to a 5-per cent. basis. The International Commission to fix duties under the protocol concluded its labors and the provisional tariff was signed on Aug. 16, to go into force on Nov. 1, 1902. The specific duties agreed to represent an average rate of 43 per cent. of the values current. Russia, Italy, Spain, and Portugal were not represented on the commission. Portugal, not being a signatory of the protocol of 1901, claimed a right to import goods under the old tariff, which she offered to relinquish if China would concede two small islands near Macao in fullfilment of an article in the treaty of 1888, together with the right to build a railroad from Macao to Canton.

On July 27 the Imperial Government gave its assent to the entire abolition of lixin on all merchandise, native as well as foreign, throughout the empire. The Yangtse viceroy, who first registered the suggestion of the sumptuous chamber of Peking, to the effect that the whole system of inland native customs. The lixin taxes are not ancient. They were introduced to furnish means to cope with the Taiping rebellion and afterward extended to appear as the customs of the Chinese government, or the cargoes for the Chinese government, or the taxes from foreign commerce sacrificed in the sumptuous temple in 1858. The article in the draft treaty abolishing lixin was submitted by the imperial Maritime Customs, was to be levied by the customs officers of the same description, whether carried by junk or steamers. Within foreign settlements or concessions the consumption tax cannot be levied. Yarn and cloth manufactured by machinery in China by foreigners or Chinese pay an excise duty, collected by the imperial Maritime Customs, equal to double the import duty. On raw cotton imported from the countries of the surtax, which is a rebate of the import duty and two-thirds of the surtax, and is exempt from the consumption tax and all other duties leviable on Chinese raw cotton used in the manufacture of cotton goods. The Chinese machine-made yarn or cloth is

James L. Mackay could not agree to it, as he did to the other articles, until he obtained the approval of his Government. Instead of a 15 per cent. duty on imports, as originally proposed by the Chinese Government, the British merchants were asked to consent to a total duty of 124 per cent. The first seven articles of the treaty provided for registration of trade-marks, bonded warehouses, the navigation of the Yangtse and Canton rivers, equalization of dues on junks and steamers, facilities for drawbacks, the establishment of a national currency, and the liability of Chinese stockholders in foreign companies. The eighth article abolished lixin and other dues at the place of production, in transit, or at destination in return for a surtax on foreign goods imported and Chinese produce destined for export abroad or coastwise, the surtax on imports not to exceed 74 per cent. ad valorem. Export duties may be charged at a scale of 5 per cent. ad valorem, with a surtax of half that amount in lieu of internal taxation and lixin. Silk and cocoons pay no surtax. Lixin on salt is abolished, after which the campaign of the lixin and other taxes is added to the salt duty collected at the place of production or in the province where the salt is to be consumed. Native produce trade is charged a 15 per cent. surtax. An annual license fee and are not liable to any other charges or tolls excepting port dues from junk duties. The commutation of lixin on foreign opium remains as before, a total of 74 per cent., instead of the 124 per cent. charged on other imports. For the taxation of native opium China may retain offices on the borders of each province, where all taxation that is leviable in the province is paid in a lump sum and the cakes are stamped in evidence of payment, but no goods except opium can be stopped or taxed at these offices. The loss of revenue from the abolition of lixin and all other kinds of internal taxes on foreign goods imported and on native goods exported abroad and coastwise is only partly made good by the surtax, and therefore it is agreed that China is at liberty to impose a consumption tax on articles of Chinese origin not intended for export. This tax shall be levied only at places of consumption, and not on goods while in transit, and the Chinese Government undertakes not to interfere with foreign goods or native goods for export, and when foreign goods are similar to native goods the owner can demand on payment of the import duty and surtax a certificate of their foreign origin. This consumption duty may vary according to the articles are necessary of life or luxuries, but it shall be levied at a uniform rate of three-fourths of the same description, whether carried by junks or steamers. Within foreign settlements or concessions the consumption tax cannot be levied. Yarn and cloth manufactured by machinery in China by foreigners or Chinese pay an excise duty, collected by the imperial Maritime Customs, equal to double the import duty. On raw cotton imported from the countries of the surtax, which is a rebate of the import duty and two-thirds of the surtax, and is exempt from the consumption tax and all other duties leviable on Chinese raw cotton used in the manufacture of cotton goods. The Chinese machine-made yarn or cloth is
free of export or coast-trade duty and surtax and consumption duty. The same conditions apply to all goods of foreign make by machinery in China, except that the products of Government ironworks, arsenals, dockyards, etc., are exempt from all taxation. Members of the foreign staff of the Imperial Maritime Customs, to be appointed by the viceroyos or governors in consultation with the Inspector-General of Customs, will have a general supervision over native customs, the consumption tax, and salt and native opium taxes. Illegibilities complained of will be investigated by a Chinese official in conjunction with an officer of the foreign Government concerned and an officer of the Maritime Customs; and if the complaint is found to be well founded compensation will be paid through the imperial Maritime Customs from the surtax funds and the high provincial officials will be held responsible for the punishment and dismissal of the officer guilty of the illegal action. The Chinese Government promised to open to foreign trade the following new treaty ports: Changsha in Hunan, Wanhien in Szechuen, Nganking in Anhui, and Waichau and Kungmum in Kiangtung. After the edict is issued abolishing the salt likep, the declaration of internal taxation on goods, any official disregard of the letter or the spirit of the injunction shall be severely punished and removed from his post, and the high provincial authorities will be held responsible that this is done. The surtax on imports and exports and the salt tax substituted for the salt likep will be divided between the province in which the transaction occurs and the Maritime Customs in such proportion for each viceroy or governor as may be arranged between him and the Board of Revenue. The surtaxes shall not be pledged as security for new foreign loans or for existing liabilities of China, but the interest and sinking-fund of the loan of 1898 for which the likep and salt likep were pledged are to be set aside out of the proceeds of the surtaxes on imports and exports and the new salt tax. In the ninth article of the treaty China agrees to resuscitate regulations in such manner as to offer no impediment to the attraction of foreign capital. The tenth article contains regulations for the navigation of inland waters, which is made for the first time a treaty matter, and the provisions are to enable them to build or lease wharves and warehouses. The eleventh article restricts the importation of morphia. In the twelfth article Great Britain engages herself to relinquish extraterritorial rights as soon as the reform of the Chinese judicial system and the establishment of an effective administrative machinery shall warrant her in so doing. In the thirteenth and last article Great Britain agrees to take part in a joint commission representing China and the treaty powers interested with the object of investigating the missionary question and devising means of securing peaceful relations between the Christian converts and the rest of the population of China. The treaty was signed by the British and Chinese plenipotentiaries on Sept. 7. It was subject to the acceptance of its conditions by all the powers entitled to most-favored-nation treatment and to their ratification in Paris, and it was to be removed on Jan. 1, 1904, and all officials employed in the collection of taxes and duties prohibited by the treaty shall be removed from their posts.

Should the powers not agree before that date the treaty will go into force as soon as they have accepted its conditions. All the duties on imports, although nominally 12½ per cent, actually amount to between 10 and 11 per cent. on the system of valuation in force. Great Britain, however, was spared from their determination not to join the other powers in a pro rata reduction of the indemnity claims to bring the total sum down to the stipulated 450,000,000 taels when the United States offered to abate its claim independently. When silver fell 20 per cent. below the exchange rate at which the indemnity was reckoned the Chinese Government claimed that the payments should be made in silver. The fall in silver already added 90,000,000 taels to the indemnity debt and 3,000,000 taels to the annual interest, and if China continued to sell silver for gold to meet the payments the rate would continue to fall, as there was little demand for silver outside of China. The Chinese Government proposed to collect the customs duties in gold at the exchange fixed by the treaty. The representatives of the powers peremptorily refused to allow this course. The Chinese then declared that they would pay in silver, and the treaty likep and salt tax likep in terms of the current rate of exchange. The commissioners refused to accept this amount. The Government then acknowledged that it was a gold debt and appealed to the powers to relax it from conditions that would soon render it impossible to pay the interest or principal of the indemnity. The United States Government took the ground that the indemnity and the likep in silver were only money available in China, was in equity a silver debt, intended to be equivalent to a gold debt at the rate stated in the protocol without regard to the fluctuations of silver. The American minister notified China that his Government was willing to accept payment of its part of the indemnity at the current rate of exchange. England then proposed that China should be permitted to pay the indemnity in silver until 1910. After an acknowledgment by the Chinese Government that it had agreed in the treaty to pay in gold the other powers agreed to the English proposal.

The native customs were handed over to the Maritime Customs department according to the protocol, but not for shipowners to build or lease wharves and warehouses. Canton remains the principal port of trade with the United States; Fergana is the chief of the British and German and Japanese likep. The Chinese were allowed a choice of three months to select a new place, but they preferred the old place. Registered letters are sent for 5 cents Mexican by the imperial post-office, and postal and money-order offices are established in all the large towns and provincial capitals. Chang-Chih-Tung, which the present viceroy interposed obstacles at first to the extension of the post-offices into their provinces,
but their opposition was only formal and temporary. Chang-Chih-Tung, while remaining Vice-
or of Wu Chiang, became Imperial Commissioner of Commerce, an office bestowed upon Li-
hung-Chang shortly before his death. When the United States Congress passed the new Chi-
ese exclusion act the Chinese Government began against the reenactment of the law, particularly against its extension to Hawaii and the Philip-
ines, where the Chinese have acquired large in-
terests and are connected by family ties with the population of the islands, for which reasons the repression of free intercourse would result in peculiar hardships.

The Imperial Government, in response to a memorial of Yuen-Shih-Kai, issued on Sept. 13 an edict intended to eradicate official squeezing and malversation. Considerable progress was made in this reform in Pehchi. The edict an-
ounced that salaries would be fixed, and ordered that all fines and other revenues be accounted for and turned into the public treasury, with the exception of a certain percentage, until a scale of salaries is adopted by the Imperial Gov-
ernment which will render squeezing unnecessary.

The Chinese National Railroad and the Chinese Corporation in 1896 secured a concession for a railroad from Shanghai to Nanking and mining and railroad concessions in Shansi and Honan and applied for a concession for a trunk line between Pekin and Hankau. A Belgian syndi-
cate with Russian and French backing secured the latter, whereupon the British minister de-
manded and obtained the right to build lines to serve the industri
al interests of others, who spread a rumor that Germany was pressing the Chinese Government to grant exclusive privileges in Shantung. The German Government denied, in answer to inquiries, that
the industrial concessions granted established a German monopoly or were intended to shut the door to foreign competition in Shantung. A German firm proposed to form the concession and sale of opium throughout the empire, offering 50,000,000 taela a year for the monopoly, but the scheme was not favorably received by the Chinese Government. The terms of the last
German mining rights in Shantung it is intended to apply to all mining concessions. The con-
ditions are that the Government shall receive 25 per cent. of the profits and also a proportion of
the product, which is 25 per cent. for precious stones, 15 per cent. for precious metals and quick-
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promised to yield their quota, but it was all extra taxation; they were in many cases unable to wring it from the people, and had to borrow money from bankers on their personal security to complete their contributions. In the more prosperous districts some of the mandarins squeezed much more out of the people than their quota, and thus dissatisfaction and indignation against the regent and the imperial Government spread throughout the purely Chinese provinces that have never been contended under the Manchu rule.

The taxes that had to be raised for the indemnity increased in the same proportion as the fall in the gold price of silver. This was felt to be a fresh extortion of the foreigners. In this way and by the negligence of the continued occupation of Tientsin and retention of the railroads in violation of the treaty of peace kept alive or revived the anti-European movement.

In February disturbances broke out in Kuang-tung and Kuangsi along the French border. Two French officers were murdered. A German mission was destroyed. The Imperial Government, too, joined the local officials to use all the means to suppress disorder and punish the offenders. Although foreigners were the first victims, the movement developed into an antidynastic rebellion. Su-Yuan-Chun, a general who had maintained order along the French frontier for many years, was sent back to the post with an army. He encountered and defeated a body of rebels at Langchau.

Gen. Ma led another army out from Canton, but had to retreat from Fangcheng, where the rebels put the mandarins to death. The movement spread rapidly and extended into Yunnan. The most active and troublesome of the rebels were discharged soldiers. The objects of the rebellion were the downfall of the Tartar dynasty, the establishment on the throne of a Chinese line of monarchs, and the relief of the suffering Chinese people. These objects are always cherished in the Kuangsi provinces and kept alive by the Triad and secret societies. frequent and countrymen joined the rebellion for food and plunder because drought prevented rice-plowing. The imperial troops were checked at Sung-shih-k'ou and Liang-yung-kou, and Kuang-tung and Fukien, and Puchuen in Yunnan. Many of Su’s troops deserted and joined the rebels.

The Viceroy of Canton asked for reinforcements. The rebel army was defeated at Kung-chuen, where the opportunity of Gen. Wong with quick-firing rifles was defeated by the Chinese. The rebel forces, however, were unable to make headway, and sat down at Lienciu and Kuchau until reinforcements arrived, a regiment of the foreign-drilled troops of Yuan-Shih-Kai with artillery and one of Black Flags for Nanning-Fu, which was protected by torpedo-boats, while gunboats were sent to protect Wuchau. The rebels obtained arms from outside and their ranks were strengthened daily. The antispanish agitation at Ningpo led to the dispatch of German, British, and French troops in their protectorates enjoined the people to spare and protect the foreigners and their commerce, but to drive out the mandarins who ground them down with oppressive extortions. They charged Manchu nobles and corrupt mandarins in control of the Imperial Government with having sold parts of China to Occidental nations and with having declared war without the concurrence or knowledge of the true Chinese of the south, upon whom they now imposed increased taxes to pay the war debt. The revolutionary program set forth as the order of the movement is the overthrow of the Manchu dynasty, the founding of a new dynasty under a Chinese Emperor, relief for the oppressed; the introduction of reforms, protection of commerce, the establishment of 3 governments in Kwangsi, Kweichau, and Kuan-tung with an emperor at Canton and viceroy’s in Kwangsi and Kweichau, and protection of Europeans and their property. The movement was the cradle of the Taiping Rebellion, and the revolutionists took the name of Hung from Hung-Sau-Chuen, the leader of that rebellion. The reformers Kung-Fu-Wei and Sung-Fu-Ten had no connection with the insurgents; who number about 10,000 armed men supplied with muskets and revolvers by pretended opium merchants coming from Annam. The prefect of Nanning-Fu alienated the district by destroying whole villages in his hunt for the rebel chief. All the country surrounding and beyond that city was dominated by the rebels. They held over 30 towns and villages, making prisoners of the mandarins. In most places the people received the rebels with open arms. A force of 2,000 imperial troops sent by Marshal Su to dislodge the rebels from a village was ambushed and cut to pieces in a narrow defile. A sufficient force of imperial troops was sent into Kwangsi to hold the insurgents in check. A large body of rebels was dispersed near Wuchang, and Hung-Yung-Seng, their leader, was captured. Nanning-Fu was attacked by the rebels on April 27. A few days later a large insurgent force sustained a severe defeat. The political movement subsided, but well-armed predatory bands, largely composed of braves of Su’s frontier force, who, receiving no pay, had deserted with their arms, continued to roam about the country, pillaging and murdering, and preying on the rich. They were the effect of the war, the consequence of the government, and the result of the system of taxation. The French, with the aid of the British, took up the work of the Chinese. Outrages on Christians in northern Kansu committed by Gen. Tung-Fuh-Siang’s troops, who numbered 3,000 or 4,000, armed with modern rifles, compelled missionaries to flee. The troops of General Su’s army were not trained for field service and were not fit for duty. The troops of northern China betrayed an anti-foreign feeling caused by the continued occupation of Tientsin, the imposition of the indemnity.

CHINA.
CHRISTIAN CONNECTION.

The missionary claims, and intrigues of reactionary officials. In the central and southern provinces the proclamations of the officials levying indemnity taxes were often couched in bitter and provocative phrases, commanding the people to pay in order to increase the wealth of the foreigners.

In parts of Chili the villages and market-towns formed leagues to resist the collection of foreign indemnities and armed the members with Mauser rifles for a conflict with Yuan-Shih-Kai's soldiers. The attempts of local officials at Taining-Fu to collect indemnities for losses of the missions and native Christians on which they had agreed with the Roman Catholic priests led to riots which resulted in great loss of life. Hundreds of villagers were killed, as they were armed only with spears and bows, and 60 of the troops, in consequence of which a brigade was sent to destroy them. A Chinese soldier, killed a missionary and threatened to drive them all out of the district. At Shunte-Fu a league of villagers led by a military mandarin and armed with rifles and cannon in at least one place the first body of troops sent to suppress the rising. A large force of Yuan-Shih-Kai's trained men dispersed the rebels, who numbered some thousands, and the leader of the movement was captured and beheaded. He had killed the members of his family before embarking in the enterprise to prevent them from being punished in the sincerity of their faith. A Boxer outbreak occurred during the summer in which converts were massacred and mission property destroyed. A conflict with the troops took place in Chengtu, which resulted in the defeat of the insurgents, whose leaders were captured and beheaded. The American and French ministers made representations to the Government, which removed the viceroy and the other officials. In every place where disturbances occurred throughout the empire the local officials were punished.

At Chenchau, in Hunan, missionaries were accused of introducing cholera. H. E. Lewis and J. R. Bruce of the Chinese Mission, were beaten to death by a mob on Aug. 15.

CHRISTIAN CONNECTION. Under this head we have traced the American Christian Convention of the United States and Canada, the Christian Church, South, and a number of affiliated colored churches. The quadrennial meeting of the American Christian Convention at Norfolk, Va., was attended by representatives of all these societies. The conference lists given in the Christian Annual for 1902 give the numbers of members as follow: American Christian Convention, 60 conferences, 71,395 members; Southern Christian Convention, 6 conferences, 13,595 members; 6 other conferences in the South, 12,217 members; in all, 72 conferences, with 97,567 members. The total number of churches in 1901 was 1,517, and that of ministers, 1,151. The mission secretary reported, for 1901, in home missions, 6 churches and 7 Sunday schools, with 397 members received, and 298 conversions returned by the missionaries during the year. The report of the foreign missions (Japan and Porto Rico, with one to be established in China) for the year closing July 1, 1901, mentioned 7 organized churches with 145 members, 26 baptisms, and a net gain of 30 members during the year. 16 Sunday-schools with 728 native members and to native ministers and other helpers. The mission reports had been in excess of those of any previous year in the history of the Church. Nine educational institutions of high grade are maintained, one of which is a Biblical Institute, and another a college for colored people. Besides the publishing department of the General Convention, the Christian Publishing Co. continue in the same membership as the General Convention, and issues the denominational weekly newspaper and Sunday-school literature at Dayton, Ohio, and a missionary journal and local newspapers are published in New England and Canada.

The American Christian Convention met in quadrennial session at Norfolk, Va., Oct. 8, the Rev. O. W. Powers, D.D., presiding. The report of the president and secretary represented the Church as in a condition of encouraging progress, with increase in every department of its work. The people had contributed nearly $11,000 for education. The receipts of the missionary treasury during the past four years had been $61,057, or $18,965 more than in the previous four years, showing an increase of 42 per cent. The expenditure had been $49,465. The Woman's Board of Foreign Missions had received (during the four years) $6,976, and the Woman's Board of Home Missions $1,711. The Home for Aged Ministers, at Castle, N. Y., had an endowment yielding an income of $900 a year, while the expenditures were more than $900 a year, and had received additional gifts. A new institution was adopted, during the discussion of which the word "denomination" was stricken out wherever it occurred, and the words "religious body" were added. A provision was passed ratifying the acts of the old convention, as those of the new are under the new articles of incorporation, and provision was made for drawing up new laws, rules, and regulations for the convention, including order of business and parliamentary rules, which are to be printed and distributed among the people of the Church. A plan was approved for the establishment of a university, to be called Palmer University, for which property valued at $200,000 was offered at Muncie, Ind., and $100,000 were promised for endowment, contingent upon another $100,000 being secured. Papers were presented requesting help for different interests of the colored people and asking that literature of the connection be furnished to colored colleges and by recommendation of the conventions the Afro-American delegates were admitted. Four convention collections were authorized to be taken in the churches: for the convention, for foreign missions, for home meetings, and for educational and building and equipping a printing establishment. The Board of Trustees was advised to be cautious in making investments in fixed property, but to exercise greater vigor in publishing new matter. The educational report advised raising the standard of ministerial education, the fostering of industrial training in at least one of the white schools, and the federation of the colleges, in order to bring about uniformity in work and degrees. A report on moral reform took cognizance of such subjects as Sabbath observance, the settlement of labor difficulties by "Christians in harmony," legislation on marriage and divorce in harmony with biblical teachings, abstinence from tobacco and intoxicating drinks, and the restriction of the liquor traffic. Cooperation with the Anti-Saloon League was continued.

The Southern Christian Convention maintains Elloe College, North Carolina (Eloise, Col. College office), and has a book depot and publishing interest at the same place, whence the periodical organ is issued. Its home mission work is in successful operation with one general missionary, and interest in foreign missions is represented as
increasing. Plans for the liquidation of the debt of Elenon College, the establishment of an orphanage, and the raising of a twentieth-century offering of $20,000 have been pushed with vigor.

COFFEE. Coffee forms the largest single item of our imports. For some time the United States have been the largest coffee-importing country in the world, and our purchases have steadily increased. For the last crop year, ending June 30, 1902, the imports into the United States were 7,903,815 bags of 132 pounds each, or 1,043,567,580 pounds. It is now estimated that we consume a little more than 12 pounds of coffee per capita annually. While Great Britain consumes less than $ of a pound per capita annually, some of the other northern countries of Europe consume considerably more. Denmark is given by M. Lecompt, in his Geography for 1901, as the largest coffee-consuming country in proportion to its population, the average consumption being 5.07 kilograms, or 15.72 pounds, to raise a phaldrant. Norway and Sweden are next on his list; their average consumption is 4.63 and 4 kilograms respectively; but, for some unknown reason, Holland, which consumes more coffee than either, is not mentioned. A parliamentary paper recently issued contains an official document entitled Tea and Coffee in 1900, which gives the consumption of coffee in that country per capita as 13.57 pounds annually, which makes Holland the largest coffee-consuming country in proportion to its population.

The steady increase of our coffee consumption may be judged by our imports; those for the fiscal year 1896—836,598,382 pounds—were nearly 20 per cent. greater than our imports of the previous year, 50 per cent. greater than in 1893, about double those of 1890, and more than three times those of 1874. Our imports fell off in 1899 and 1900. The imports for 1899 fell off more than 38,500,000 pounds, and for 1900 they fell off 43,500,000 pounds from those of the previous year. The statistics of the Treasury Department for the fiscal year 1901 give the sum total of coffee imported into the United States as 967,909,356 pounds, valued at $63,773,073. But in 1892 we paid a great deal more money for coffee; our imports for that year, though 98,400,211,000 pounds, were worth $129,042,000.

The years from 1888 to 1902 were prosperous for the coffee-growers; the average price, which was 7 and 10 cents a pound in 1886 and 1887, jumped to 20 cents in 1892. The highest price ever paid for coffee in our history. The price fluctuated between 7 and 9 cents in the fifties, rose to 12 cents in the sixties, took a sudden drop in 1895 to 6 cents, jumped again in 1898 to 11 cents, and then went down to 9 cents. But fluctuating between these figures till the seventies, when it began to rise steadily, reaching 15 cents a pound in 1874. This stimulated the coffee-growers all over the world, and with the increased production the price gradually fell till 1896, when it was down to about 7½ cents. As it costs much more to this to grow and market coffee in many of the coffee-producing countries, the planters were obliged either to go out of business or to use their estates for some other crop. Consequently, with the ever-increasing demand, the price went up again till it reached 20 cents in 1892. The following year it fell to 14 cents, and then it rose to 16 cents, since which time it has been steadily going down till the present year, when coffee was sold on the exchange in New York as low as 15 cents.

In a paper before the Chamber of Commerce at Rio de Janeiro last year, on the consumption of coffee in the United States, by the Brazilian minister to this country, he says that this fluctuation in the wholesale market affected the retail price of coffee but little. The price of a cup of coffee in the United States, he says, is the same as when a pound of the product cost in the wholesale market three times what it is sold for at the present time. He further said that the price of roasted coffee has remained about the same; that five cents a pound, or 22 cents a pound, was paid for coffee in the United States is imported from Brazil; and he intimated that it was sold to the consumer as Java and Mocha and brought the average price of 20 cents a pound. Thus the people of the United States, he says, pay $165,000,000 yearly for Brazilian coffee, less than a quarter of which is paid for in the wholesale market. He further declared that Mocha coffee is scarcely more than a myth, as Brazil supplies nearly the whole of Arabia with coffee; and as for Java, the entire production of the Dutch East Indies for 1896 was but 430,501 bags.

This statement of the Brazilian minister regarding the substitution of Brazilian coffees for Mocha and Java has been denied by some of the coffee dealers in this country; but the official figures show that in 1900 we imported 133,182 bags of coffee direct from the Dutch East Indies, and from Holland 23,104 bags, making a total of 156,286 bags, while for the year 1901 we imported only 72,338 bags direct, and 12,198 bags via Holland, which was only a little more than half of the previous year's importations. From Aden we receive our Mocha coffee, and in 1901 we imported 12,276 bags. These figures show the relatively small quantity of Mocha and Java coffees received in this market, and form the basis of the Brazilian minister's statement to the effect that these coffees are hardly more than a myth. According to the official publication of our Commercial Relations with foreign countries (1902, Vol. 1), of the coffee imports of 1901 nearly 80 per cent. (by weight) came from Brazil, about 8.5 per cent. from other South American countries, a little more than 6 per cent. from Central America, and more than 2 per cent. from Mexico. There remains, therefore, 1.3 per cent. representing the coffee bought by the United States in the rest of the world. The Coffee Exchange gives our imports of coffee from Brazil for the crop year 1902 as 6,738,565 bags, against 1,167,199 bags from all other countries. On July 1, 1902, the world's visible supply in this country and Europe and the chief primary markets had increased to 11,261,331 bags, a quantity sufficient for the world's consumption for one year.

The country that supplies us with coffee next to Brazil is Venezuela, to the extent from that country equaling about one-tenth the amount imported from Brazil. In 1899 we imported a little more than 28,000,000 pounds.
from Colombia, which was less than half our imports for the corresponding year from Venezuela. Mexico came next on the list with nearly 27,250,000 pounds, and then Costa Rica with a little more than 15,500,000, and Guatemala with nearly 15,000,000 pounds. The average price of these coffees a pound was: Brazil, 5.6 cents; Venezuela, 7.7 cents; Colombia, 8.6 cents; Mexico, 9.8 cents; Costa Rica, 14.5 cents; Guatemala, 12.1 cents. These figures, taken from the Commerce and Navigation volumes of the United States, indicate that there is a good deal of truth in the statement made by the Brazilian minister.

Until the acquisition of the Hawaiian Islands, Porto Rico, and the Philippines, no coffee was produced in any territory under the control of the United States. The fact that a superior quality of coffee has long been produced in these islands, and that their conditions are eminently favorable for its production, coupled with the fact that it has always been the policy of the United States to protect her own industries, whether agricultural or industrial, makes the question of production very interesting. Porto Rico has produced coffee in large quantities, that being her principal export for many years, the bulk of it going to Spain, where it has long been considered the finest coffee in the world. Her exports of coffee have amounted to 30,000,000 pounds per annum for many years. The Statesman's Year-Book for 1902 gives 200,000 acres under coffee cultivation in the island, which now produce 60,000,000 pounds of coffee annually. The Division of Insular Affairs gives the exportation of coffee from the island from the date of our occupation in October, 1898, to the end of April, 1900, as a little more than 62,000,000 pounds, of which 23,500,000 went to France, 9,000,000 to Cuba, nearly as much to Spain, 7,500,000 to Italy, a little more than 5,000,000 to Austria-Hungary, and a little less than 5,000,000 to Germany, this country receiving only a little more than 2,250,000 pounds of the product.

The Philippine Islands are said to be peculiarly adapted for the production of coffee, but the Division of Insular Affairs gives for the years 1898, 1900, and 1901 but small acreage exported, the amount for 1899 being 73,500 pounds; in 1900 only 24,500 pounds left that port; but in 1901 the shipments rose to 65,000 pounds.

Coffee appears as a natural product in the Hawaiian group, growing in many of the islands in a wild state; but as yet it is not produced on an extensive scale. It is said that there are more than 200 small plantations in the islands, and the exports given for 1897 were 337,158 pounds, worth $99,896. It is said that the area in these islands in which coffee can be successfully grown is small, but the quality of the product is excellent.

The Coffee Conference.—Owing to the low price obtainable for coffee in the producing countries, it was proposed by Mr. Lazo Arriaga, delegate for Guatemala at the Pan-American Congress held in the city of Mexico last winter, that a commission be convened within one year in the city of New York, to be composed of one or more delegates from each of the American republics, to study the causes of the low price, which was producing a crisis in the producing countries, and to consider means of remediating it. He called attention to the fact that 15 of the nations represented at the congress were producers of the precious bean, while the 4 remaining nations were consumers of it. He further said that the low price had affected the treasury receipts of some of the producing countries to such a degree that perhaps for this reason some of them were in a state of revolution, owing to the misery and poverty caused by the low price of their chief product. All the countries entered into the project through their delegates, who signed the resolution, with the exception of Chile, which declared itself as being exclusively a coffee-consuming country, with no interest in a congress the avowed object of which was to study a means of raising the price of a product which she purchased in considerable quantities at a price already sufficiently high.

Owing to the foresight of Mr. Lazo Arriaga, in placing the details of convening the proposed Coffee Conference in the hands of the Pan-American Republics, it was one of the first, if not the first, of the many resolutions adopted by the Pan-American Congress to be acted upon. The conference met at the New York Coffee Exchange on Oct. 1, and was composed of delegates from all the producing countries with the exception of Colombia, Hayti, and Bolivia. Two of the non-producing countries—Ecuador and Uruguay—were represented at the conference, so that only 6 of the American republics were unrepresented at the conference. The sessions of the conference were presided over by Percy B. O'Sullivan, a delegate of the United States and president of the Coffee Exchange, and were held throughout October.

Papers were presented upon the production, distribution, consumption, and causes of the low price of coffee by representatives of the coffee-producing countries. It was generally agreed that the cause of the low price was overproduction, and to remedy the evil it was proposed by the committee charged with the study of the subject, of which Senhor J. F. de Assis, Brazilian minister at Washington, was chairman, that the coffee-producing countries enter into a combine to hold back a sufficient percentage of their entire crops to reduce the supply to the limit of consumption, and that in case no demand should be created for the surplus so held back by increased consumption, the surplus should be ultimately destroyed by fire. This proposition met with a vigorous protest from the delegate from Porto Rico, who demonstrated that his country was in no wise to blame for the overproduction, the cyclone of 1899 having destroyed more than half of the plantations on the island, and that the present Porto-Rican crop was hardly equal to 4 per cent. of the crop of former years. He pointed to Brazil as the country responsible for the overproduction, and said there was where the remedy should be applied. Of course the United States could not enter into any such radical project to raise the price of any product in which it was interested either directly or indirectly, and consequently its delegation abstained from
COLOMBIA.

voting on this measure. Peru and the Dominican republic voted against it, while the other countries voted in its favor.

A measure adopted by the conference was a recommendation to the coffee-producing countries that the exportation of refuse as coffee and to the consuming countries the importation of such refuse and be used as substitutes or for coffee be prohibited by the most efficacious means possible. It was also proposed to recommend to the consuming countries the abolition, or at least a reasonable reduction, of the import duties in those countries where the consumption of coffee is materially affected by them.

A third measure was a proposition to organize a permanent international union to watch the interests of the coffee industry, and especially to maintain a propaganda for the purpose of increasing the consumption of coffee throughout the world.

The surprise and consternation of some of the other delegates to the conference were evident at the attitude of the Porto Rican delegate when he came out openly for protection for his island product by the United States. When it was proposed as one of the most practical measures for increasing the consumption of coffee, the producing countries should endeavor to secure suppression of the duties imposed upon coffee by European countries, he said that to accept this proposition in an absolute manner would be against the wishes of the Porto Rican people, who, if not citizens of the United States at present, expected to be in the near future, and consequently expected protection in the United States for their coffee. But he favored a reduction of the exorbitant duties in some of the European countries. The conference adjourned on Oct. 31, with the adoption of a final resolution that the Government of Brazil be invited to convene a second conference as soon as possible, to meet in Sao Paulo, the center of the coffee-producing district of Brazil, to delegate to have full power to carry into effect by treaty such recommendations as may be made by that conference.

COLOMBIA, a republic in South America. The area is 374,043 square miles, and the population is 4,000,000. Bogota, the capital, has about 120,000 inhabitants; Medellin, 40,000; Barranquilla, 40,000; Panama, 30,000; Cartagena, 20,000; Bucaramanga, 20,000.

Area and Population.—The estimated area of Colombia is 513,058 square miles, and the population is estimated at 4,000,000. Bogotá, the capital, has about 120,000 inhabitants; Medellín, 40,000; Barranquilla, 40,000; Panama, 30,000; Cartagena, 20,000; Bucaramanga, 20,000.

Finance.—For the two years 1897 and 1898 the revenue was 3,445,640 pesos, and the expenditure 4,129,180 pesos. The expenditure was 3,481,000 pesos, and of expense 33,771,013 pesos. The official annual report for 1902 shows that the international trade of Colombia for 1901 was 29,018,640 pesos, and expenditure was estimated at the same figure. For 1901 and 1902 a revenue of 29,083,640 pesos was expected, while the expenditure of 40,427,515 pesos. Of the revenue 21,453,640 pesos are from customs. The revenue is largely due to tobacco, which is imposed on exports of coffee, hides, rubber, gold, silver, and cattle as well as on imports. The expenditure for war in 1901-02 was estimated at 13,317,088 pesos; for justice, 4,571,801 pesos; for finance, 4,330,238 pesos; for debt, 5,773,560 pesos. The departments obtain revenues mainly from monopolies of tobacco, salt, opium, and ice, and the privilege of keeping gambling-houses, which are farmed out to the highest bidders. The net revenues of the departments for 1889 and 1900 were estimated at 10,986,736 pesos and the expenditures at 17,346,040 pesos. The external debt, mostly held in England, amounted, with arrears of interest, to 23,514,442, when an arrangement was made with the bondholders, in the beginning of 1897, for its reduction and exchange for £2,700,000 of new bonds on which the interest should be 1½ per cent. for three years, 2 per cent. for the next three years, 2½ per cent. for a third period of three years, and after that 3 per cent. The insurrection interrupted the payments in 1899, and in July, 1901, the arrears of interest amounted to £101,250. On the 1st November, 1901, a convention concluded, of which there were 320,000,000 pesos in circulation in 1901, worth only 4 per cent. of its face value. At Panama the paper does not circulate and the Peruvian sol is legal tender.

The Army.—Congress, at each session, fixes the strength of the standing army, which was 1,000 men for the biennial period 1899-90. In the event of war the President has authority to raise the strength as he deems necessary and can impress every able-bodied citizen into the service.

Commerce and Production.—The average production of gold and silver is $4,000,000 a year. Gold is washed in every department, and quartz-mines are worked in Antioquia, Cauca, Bolivar, Panama, and other departments. Copper, platinum, mercury, cinabars, manganese, and lead are also mined. The Government emerald-mines at Muzo and the emerald mines at San Agustin are operated by a French corporation. The total number of mines of all kinds on which license fees were paid in 1891 was 4,981, mostly gold-mines. Iron is smelted near Iquitos. The Government smelter at Zipaquira, and has reopened the coal-mines at San Jorge. The pearl fisheries have been worked with success by natives, but the Government proposes to lease them out. Coffee of fine quality is produced, and the cultivation is extending. The country is generally very fertile, but with primitive means of transportation agriculture can only be carried on for local wants. Cacao and tobacco are grown for export and rubber is gathered in the forests, as also is coca. Tolu balsam is a cultivated product. The number of cattle is estimated at 3,465,000, and many are exported. Vegetable ivory and dyewoods are minor exports. The chief imports are cotton goods, woolens, flour, rice, petroleum, wine, brandy, and salt. The value of the coffee exported in 1900 was £270,876; of gold in bars and dust, £99,286; of silver ore and bars, £40,149; of hides, £34,660; of tobacco, £58,204; of rubber, £14,043; of precious stones, £7,833; of tolu, £4,030; of divi-divi, £2,271. The share of the United States in the export trade in 1900 was 29,918,640 British dollars. Britain takes 25 per cent, France 17 per cent,
and Germany 16 per cent., leaving 15 per cent. for other countries. The Panama Railroad in 1900 carried westward across the isthmus 153,738 tons of goods, of which 60,318 tons were from New York and 54,963 tons from European ports, and eastward 293,619 tons, of which 118,670 tons were for New York and 77,219 tons for Europe.

Navigation.—The number of vessels entered at Barranquilla and Sabanilla in 1898 was 206, of 441,673 tons; cleared, 203, of 442,777 tons. The number entered in 1897 at Panama, Colon, Santa Maria, and Cartagena was 923, of 1,213,110 tons; cleared, 919, of 1,210,829 tons. The merchant Navy in 1898 consisted of 7 sailing vessels, of 1,770 tons, and 1 steamer, of 457 tons.

Railroads, Posts, and Telegraphs.—The length of railroads in operation in 1901 was 400 miles, while 76 miles were unfinished and 339 miles were projected. The post-office during the two years ending in 1898 carried 2,794,008 letters and postal cards, 1,283,153 newspapers and circulars, and 161,217 packets.

The telegraph-lines had a length of 8,000 miles in 1898. The number of messages in two years was 34,285,000, exchanged between Colón Concha, 35,500 miles.

The Panama Canal.—The company formed by Ferdinand de Lesseps in 1881 to construct a tide-level ship-canal across the Isthmus of Panama from Panama to Colon, 46 miles, raised 772,545,412 francs before the middle of 1886, but was forced to go into liquidation and suspend the work on March 15, 1888. An extension was obtained in 1889, to enable a new company to be formed, and in 1894 the company was organized and agreed to complete the canal in ten years. The term was, in 1900, extended for six years longer, till March 21, 1910. It was estimated that the canal might be completed with locks, the tide-water level having been abandoned, at a further cost of 512,000,000 francs. The directors, who at first demanded $109,000,000, when the Isthmian Canal Commission recommended the Nicaraguan route to Congress, estimating that the work done on the Panama excavations could be utilized for the Nicaragua route, were forced to modify their plans. They announced that the canal could be completed in ten years and that it would cost $45,000,000 less to complete it than to construct the projected Nicaraguan Canal. The French company excavated for 10 miles on the Atlantic side and 15 miles on the Pacific side, the sections at tide-level. Considerable work was done also in the Culebra cut, the highest point above tide-water, which will be cut down to something over 100 feet above the sea. There were 2,500 men at work there in 1899. The advantages of the Panama over the Nicaragua route are, that although the latter is shorter to ports on the Atlantic and Gulf coasts and those of the Pacific coasts of the United States, the Panama route is the shorter to South American ports and more direct between Europe and all Pacific ports; that the more tortuous Nicaragua route would probably not be navigable at night and vessels would take thirty hours, whereas they could go through the Panama Canal in twelve hours; that the cost of maintenance of the Panama Canal would be only $2,500,000, a saving of $1,000,000 a year over the Nicaragua route, with a saving too of interest $5,800,000, and a saving in the cost of construction. The damming of the San Juan river is a difficult engineering problem on the Panama route, and on the other side offers difficulties and the question of possible volcanic disturbances. Both routes are unhealthy and demand much attention to sanitation. Besides the property and franchise of the Panama Canal Company, the title of which is clear, having been transferred to the new company by the receiver of the original company, it was considered necessary to acquire a strip of land 6 miles wide, in order that the canal may be policed and protected from unsanitary conditions. To obtain this it was necessary to have a new concession from the Colombian Government. After having concluded a contract with the existing Panama Canal Company to pay $40,000,000 in cash for the surrender of its perpetual lease and all right and title to the canal, all contracts and machinery, and the railroad running from ocean to ocean, subject to the title being valid and to ratification by the United States Congress, Secretary Hay entered into negotiations with the Colombian minister. He agreed in behalf of the United States Government to pay $7,000,000 in cash and an annuity of $600,000 to the Government of Colombia for the absolute surrender to the United States of 3 miles of land on either side of the canal for its entire length and authority over 5 leagues of the sea at either entrance. The United States Government undertook to expend immediately at least $15,000,000 to install proper machinery and appliances to complete the canal and to employ an increased force of American laborers to do the work. A great part of the work already done will have to be reconstructed. The plans of the French engineers have been much enlarged to provide for a canal accommodating three times as great a tonnage as the Suez Canal carries now. The waterway is to be 47 miles long and to have a depth of 36 feet and a width at bottom of 150 feet, instead of 30 feet of depth and 50 feet of width as originally designed. It will be possible for 4 steamships of 30 feet beam to pass one another at any spot without danger. A traffic of 7,000 vessels a year can be taken care of. Between European ports and those of the Orient the saving of distance by the Panama route is 4,000 miles. Between American ports on the Pacific the voyage can be made, in most cases, in one-fifth of the time now consumed. Experts calculate that the canal will return a net profit on the capital expended of 6 per cent. The Panama Railroad, acquired with the canal, is valued at $7,000,000. During the work of construction it will be useful in carrying men and materials, and when the canal is completed in transporting passengers from one port to the other. The total cost of the canal, including the purchase money, is estimated at $130,000,000. The Panama Canal Company could not transfer its rights to the United States Government without first obtaining the consent of the Colombian Government. In the negotiations with Nicaragua and Costa Rica respecting the Nicaragua Canal, Nicaragua stipulated for a payment of $6,000,000 and Costa Rica for $1,000,000, with a nominal rent of $25,000 a year to Nicaragua and $3,000 to Costa Rica, serving as evidence of their sovereignty over the land traversed by the canal transferred by a perpetual lease to the United States. Colombia, for $7,000,000 and an annual rental of $600,000,
offered the same thing as a perpetual lease of the 6-mile strip and the interests in the canal re- served in the contract with the company. A lease in perpetuity was illegal under the Colombi- an Constitution, but a lease for the term of one hundred years, renewable after each term at the option of the United States, answers the same purpose. Attorney-General Knox examined the title of the Panama Canal Company and its power under the French law to transfer its prop- erty and rights to the United States Government. The new company when constituted assumed an obligation to pay 60 per cent. of the profits of the canal to the stockholders of the old com- pany. Since the entire assets of the old company were turned over to the new company the latter can dispose of this claim of 60 per cent. of the profits. The new company was found to be solvent, with full power to sell with the consent of the French court, which was given. The United States Government can take title to the shares of the canal company in the Panama Rail- road. It can take and hold any kind of prop- erty it may need of in the same manner that an individual can. The Colombian Govern- ment would have difficulty policing the canal strip and the terminal ports. A joint jurisdic- tion was proposed, the administration of justice to be by mixed tribunals, with American and Colombian police both employed, having the right to pursue persons charged with crimes committed within the limits of the belt into any part of Colombia. A treaty was concluded between Secretary Hay and the Señor Concha on May 18, but further arrangements were neces- sary to provide for these questions of sovereign- ty and jurisdiction. When the United States naval authorities stopped the transport of Colombi- an troops by the Panama Railroad the Colombi- an minister delayed negotiations. The canal is to be completed in six years.

The Civil War.—The armed conflict, begun on Oct. 17, 1899, between the Liberals and the Conservatives, who have been entrenched in power for seventeen years, was mostly confined, in the beginning, to the city of Panama. The people of the isthmus, who originally joined the Republic of New Granada of their own free will, have always felt more or less de-ートed by political change, and in an increasing degree economically detached from the natives of the interior parts of the republic, who pro- vide them with large amounts of money. They paid taxes and monoplyes that they consider un- equal. They sympathized generally with the Liberal cause, and in other parts of the republic the common people, on whom the stress of the war taxation and the conscription mainly fell, sympathized more and more with the Liberals, who began the war, and blamed the Govern- ment for not making peace. Duties on all im- ported merchandise were raised, in some cases doubled. The effect in Panama was more marked than elsewhere. The once lively commerce was paralyzed; prosperous industries went out of ex- istence. The necessaries of life were hard to get. Hundreds of suspected Liberals filled the prisons. At the opening of the year an insurgent force of 2,000 men camped within 6 miles of the city of Panama. Risions occurred from time to time in various parts of the republic. The struggle grew fiercer and subsided intermittently, but was the most restive and worst in the history of the country. Sometimes the revolutionists had 35,000 men under arms. The Government raised now and then a total force of 75,000 men, im-
attacking the insurgents by land and sea, their lives in other parts of the republic having been rendered precarious. At all and Aquidulce the Liberals suffered much from disease. The town of Aquidulce, which had been occupied by the Conservatives, was invested by the rebels, and Government troops were sent to the relief of the garrison. The Government troops landed there were soon in worse case than the rebels, without shelter and short of provisions and unused to the climate. Severe fighting began on July 29, continuing two days, and beginning again after a short armistice to allow both sides to care for the wounded and bury the dead. The insurgent gunboat Pachita cut off the communications of the Government troops, which had to depend on a sea base, and were therefore practically surrounded. The Government steamers Boyaca and Chicuito on July 30 attempted to enter the river with supplies and reinforcements, but retired after some firing, the Chicuito returning to Panama, while the Boyaca was chased and captured with 300 soldiers, besides the crew, stores of provisions and ammunition, and two fine new guns. Gen. Salazar made ready to seize a British merchant steamer, then being no British flag on the ocean, under instructions from Washington. Capt. Potter of the Ranger interfered by the courtesy of nations when requested by the British consul. Most of the liberal troops were later forced to retire to the siege of Aquidulce, where Gen. Morales Bertti with 2,500 men was held by 2,500. Gen. Herrera at the same time made a demonstration against Colon, which by the mortars proved their entrenchments. They held both terminal ports in strength, while the rebels occupied the line. The mortality among the Government troops from bad food, exposure, and lack of sanitary regulations was excessive, not less than 25 per cent. of the reinforcements. American marines were landed to guard the railroad and the stations at Panama and Colon. While the siege of Aquidulce was going on peace negotiations were begun in Washington between the Colombian minister and Gen. Soto y Vargas-Sandia, the negotiators of the revolutionists. Peace commissioners went to Aquidulce to arrange a truce, but were unable to communicate with Gen. Herrera. Dr. Concha was sent from Washington by way of Curita, where he arrived in instruction. After a siege lasting over a month Gen. Berti surrendered with honor. This victory not only released the besiegers for operations against Colon, held by 1,000 Government troops, and Panama, held by 2,500, but it stimulated the rebels to fresh exactions in other parts of the republic. At Santa Marta the Government troops were suddenly attacked and routed with a loss of 100 by revolutionists who committed barbarities in revenge for the execution of rebel officers at Panama. Gen. Uribe Uribe and Gen. Castillo appeared on the Magdalena river with fresh forces. Gen. Herrera sent arms and ammunition to the rebels in Cauca. Gen. Perdomo was sent with 4,000 men to reinforce the Government troops on the isthmus, but he waited at Barquilla until he could complete arrangements for commissariat and sanitation. At the prospect of active operations at the isthmus ports United States ships were ordered to the isthmus, the Wisconsin to Panama and the Cincinnati to Colon, to enforce the treaty stipulations by preventing any interference of traffic, even by the vessels of the rebels. The U.S. steamer Panther carried a battalion of marines to Colon. Capt. McLean of the Cincinnati on arrival notified both parties that neither army would be allowed to obstruct traffic, and landed a force of bluejackets. The Government troops between Colon and Panama, their arms being taken in a separate train and guarded by a naval force. Before the end of September 2,000 United States marines and sailors were landed in spite of the protest of Gen. Salazar, who had forbidden the continued employment of Liberals on the railroad, but was overruled by his Government. When the Pacific Steam Navigation Company declined to transport troops to the isthmus an order exempting foreign vessels from tonnage dues was revoked. The main revolutionary force operating on the great plains east of Bogota, under Gen. Carreazo, surrendered in the middle of September. An attempt of rebels to take a Government gunboat on the Magdalena river failed. After the arrival of Gen. Perdomo's reenforcements the military situation became more critical. Capt. McLean had notified the opposing commanders that the United States navy had taken the direction of the railroad from sea to sea and would not permit any fighting along the line. By the treaty of 1846 between the United States and Colombia the United States was given the right of way for transit across the isthmus to the Government and citizens of the United States and their property, and the United States guarantees the neutrality of the land and unimpeded right of transit from sea to sea so that it shall not be interrupted or embarrassed. The instructions of the United States Navy Department were not to allow any transportation of arms which might contravene these provisions of the treaty, nor to sanction any use of the road which might convert the line of transit into a theater of hostility. Capt. McLean had permitted Government troops to go by special train. When Rear-Admiral Casey arrived on the Wisconsin he ordered that no more Colombian officers, troops, arms, or ammunition be permitted unless by special permission. The Colombian Government, through its minister at Washington, protested against being prevented from transporting troops at will any time for transit within its territory. The withdrawal of Government troops from the Magdalena river was followed by such renewed activity of the insurgents that some were sent to Panama. Gen. Uribe held Tenerife, near Santa Marta, and with quick-firing guns cut communications on the river. The Government was reduced to such financial straits that its ability to continue the war was in question. All classes endured severe hardship and the poor were reduced to pitiable destitution. The troops sent out from the interior, now including boys eight years of age, were half starved. Already over 20,000 men had fallen in the 400 engagements that had been fought, or died in the camps. The misery and privation attending the war had decimated the population. Much valuable property belonging to foreign nations had been destroyed, and several times the United States had interfered to protect the property of its own citizens and those of European countries, although, as a rule, both sides spared and protected foreigners. The blockade of the Magdalena river ceased when the Government sent a sufficient force to cause Gen. Uribe to retire. Later Gen. Uribe surrendered at Rio Frio. Gen. Castillo's force was beaten at La Cienaga by troops under Gen. Marjarres. The steamer Panther carried a battalion of marines to Colon. Capt. McLean of the Cincinnati on arrival notified.
to pacify the interior and encouraged the people to resume their peaceful occupations. The President called upon each department to raise 2,000 men to clear the rebels from the isthmus. The Government had bought a steamer in the United States and expected to get an armed cruiser from Chile. The peace negotiations were to be resumed on board the battle-ship Wisconsin by representatives of the Government and of the revolutionary party. The Government, however, after the latest successes declined to discuss anything but the acceptance of the decree of amnesty. Gen. Vargas-Santos THEREupon refused to attend the conference, which he had arranged with Gen. Santo Domingo with the object of bringing about an effective and lasting peace by harmonizing the interests of the several political parties concerned in the revolutionary contest. Gen. Uribe Uribe's condemnation to death after he had capitulated further decided him to withdraw from the conference and issue orders to the revolutionary army to continue the warfare until the Government should recognize the civil and political rights for which the Liberals had taken up arms.

COLOMBO. (See under UNITED STATES.)

CONGO, INDEPENDENT STATE OF THE, a sovereign, monarchial, neutral, and independent state in central Africa, created out of the Congo International Association, which was founded in 1883 by King Leopold of Belgium, and exercised sovereign power recognized by the powers. The general act of Berlin, signed on Feb. 9, 1885, entered into force with Leopold II, King of the Belgians, as its sovereign. A convention was signed on July 3, 1890, between Belgium and the Congo State, which provided for the annexation of the territories of the Independent State to Belgium after the expiration of ten years, King Leopold having by a will dated Aug. 2, 1889, bequeathed his sovereign rights in the Congo territories to the Belgian state after his death. In the convention the Belgian Government agreed to advance to the Congo Independent State the sum of 26,000,000 francs, 3,000 francs for roads and ports, and 2,000,000 francs a year for ten years. The loans were to bear no interest during the period of ten years, at the end of which the Belgian Government would have the option of annexing the territories of the Independent State, with all the rights, appurtenances, and advantages attaching to the sovereignty of that State, in which case the Belgian Government would be reimbursed the interest therefor and be remunerated after a further period of ten years, the sums accruing from concessions of State lands or mines being set aside for the payments. The Belgian Chambers on Aug. 10, 1901, passed a law reserving the option of annexation for a further period of ten years in consideration of the remission of all claims for interest and the repayment of the loan during this period. An additional loan was made for the purpose of repaying one obtained from an Antwerp bank to cover a deficit caused by an expedition into the Nile valley and a revolt of the Arabs. This increased to 32,000,000 francs the indebtedness of the Congo State to the Belgian Government.

The seat of the Central Government is at Brussels, where the Secretary of State, Baron Edmond van Estvelle, directs the administration with the assistance of secretaries in the various departments. The headquarters of the local Government is at Boma, where E. Wangelmée, Vice-Governor-General, directs the administration with the assistance of Secretary-General van Damme and a consultative committee composed of the chief officials and non-official members, not exceeding 5, appointed annually. The territories are divided into 14 districts: Banana, Boma, Matadi, the Cataracts, Stanley Pool, the district of the Equator, the Eastern Province, Lualaba-Kasa, Eastern Kwango, Lake Leopold II, Bangala, Ubangi, Welle, Aruwimi. The public force consists of 12,500 trained native soldiers under 116 European commissioned officers and 348 sergeants.

Area and Population.—The area of the Congo State is estimated at 900,000 square miles, and the population at 30,000,000. There were 2,204 Europeans on Jan. 1, 1901, comprising 1,187 Belgians, 170 Italians, 115 British, 114 Dutch, 107 Swedes, 91 Portuguese, 62 Germans, 58 French, 42 Danes, 30 Americans, 19 Swiss, 19 Norwegians, 14 Russians, 11 Spaniards, 9 Austrians, and 141 others. These include the white officers in the Congo service, the traders of various nationalities, and 180 Catholic and 120 Protestant missionaries. The missionaries teach mostly in the Swaheli language of the Arabs rather than in the numerous Bantu dialects. The Government aids their schools and has established schools of its own in 3 agricultural colonies.

Finances.—The revenue for 1900 was estimated at 26,256,500 francs and the expenditure at 27,731,254 francs. The revenue for 1901 was 30,751,054 francs and the expenditure at 31,236,054 francs. For 1902 the estimate of revenue was 28,709,000 francs, of which 6,052,000 francs were derived from customs, 4,150,000 francs from transport, 15,452,000 francs from domains, 1,703,000 francs from loans, 580,000 francs from direct taxation, and 759,000 francs from various sources. The expenditures for 1902 were estimated at 32,405,492 francs, of which 647,460 francs were for administration in Europe, 3,630,245 francs for administration in Africa, 7,965,125 francs for education, 8,218,030 francs for public works, 2,300,000 francs for transport, 1,137,755 francs for public works, 1,906,462 francs for agriculture, 5,752,905 francs for domains, 3,830,705 francs for various expenses, and 5,586,494 francs for extraordinary purposes.

The debts of the Congo State consist of 452-220 francs of 24-per-cent. bonds given in 1867 to the original subscribers to the capital of the Congo region; 70,000,000 francs of bonds issued under a decree of Feb. 7, 1888, authorizing the issue of 150,000,000 francs; 14,000,000 francs of 4-per-cent. bonds issued under the decree of Oct. 17, 1896, and June 14, 1898; 25,000,000 francs advanced by Belgium under the convention ratified by the Belgian Chambers on July 25, 1899; 584,415 francs advanced by the Belgian Government under a convention of June 10, 1895; and 50,000,000 francs of 4-per-cent. bonds issued in October, 1901, for railroads and other public works.

Commerce and Production.—The chief product of the Congo basin is rubber. Ivory is a diminishing article of export. Palm-nuts and palm-oil are less important than they are on the Guinea coast. Coffee and cacao are grown with success. The natives cultivate tobacco for their own use, and an export trade has begun. The Government has planted the Havana and Sumatra varieties for experimentation to the Government except the districts expressly reserved for native occupancy and the registered private estates.
The general commerce for 1900, including products brought down from beyond the confines of the State for export and the importation of merchandise sent beyond the borders, amounted to 31,803,214 francs for imports and 51,775,578 francs for exports. The special imports were 24,754,109 francs in value, and the special exports were 47,577,401 francs. The special imports of textile fabrics and clothing were 8,673,563 francs; of articles of food, 4,310,138 francs; of machinery, 1,939,653 francs; of beverages, 1,903,125 francs; of steamer and parts of steamers, 1,783,302 francs; of hardware and metal, 1,355,148 francs; of arms and ammunition, 761,804 francs. The special exports of rubber were 39,874,005 francs in value; of ivory, 1,533,300 francs; of palm-nuts, 1,318,810 francs; of palm-oil, 813,300 francs; of woods, 39,886 francs; of coffee, 27,825 francs; of skins, 2,811 francs. The total value of the special imports of Belgium furnished 17,570,483 francs; Great Britain, 2,923,590 francs; Netherlands, 1,507,490 francs; Germany, 1,302,536 francs. Of the special exports Belgium furnished 16,064,127 francs; Netherlands, 2,904,617 francs; Portuguese Africa, 1,565,362 francs; Great Britain, 270,000 francs. The general commerce was distributed as follows:

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<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
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<tbody>
<tr>
<td>Britain</td>
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<td>Belgium</td>
<td>2,923,590</td>
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<td>France</td>
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<td>Germany</td>
<td>1,507,490</td>
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<tr>
<td>Portuguese possessions</td>
<td>461,000</td>
<td>1,880,000</td>
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<td>Total</td>
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The special imports in 1901 amounted to 23,100,000 francs; special exports, 50,500,000 francs, including 43,900,000 francs for rubber, 5,700,000 francs for palm-kernels, 3,900,000 francs for ivory, 300,000 francs for copal. Coffee, earthnuts, cacao, and tobacco are represented by petty sums.

Navigation.—The number of ocean vessels that were entered at the port of Leopoldville and Boma during 1900 were 220, of 465,674 tons; cleared, 227, of 488,562 tons. Of the tonnage entered 273,059 tons and of that cleared 270,111 tons were Belgian, while 81,942 tons entered and 80,330 cleared. British and French vessels entered and cleared were German. There were entered coastalwise 408 vessels, of 18,232 tons, and cleared 428, of 18,746 tons.

Communications.—The Congo and its tributaries have 3,000 miles of navigable water. The Congo itself is navigable for 1,000 miles above Stanley Pool. On the lower Congo the State had 12 steamers plying from Banana to Matadi. The Congo railroad transports goods and passengers from this point to Leopoldville. 200 miles above. The railroad has a length of 250 miles. On the upper river the Government transport service comprises 28 steamers. A railroad is under construction in Mayumbe, of which 20 miles were completed at the beginning of 1902. A Belgian syndicate has obtained a concession for nineteen years for railroads from Stanleyville, on the upper Congo, to Lake Albert, and from Nyangwe to Lake Tanganyika. The head of Lake Albert and the island of Bangor, Chicago, Hartford, Oberlin, Oakland, Cal. (Pacific), and New Haven, Conn. (Yale), return 61 professors, 27 instructors or lecturers, 13 resident librarians or library directors, 46 in the advanced or graduate class, and 320 undergraduates.
A table of the Congregational churches for the world published in the Year-Book gives:

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<tr>
<td>New Brunswick</td>
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<tr>
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<td>60</td>
<td>5,560</td>
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<tr>
<td>Quebec</td>
<td>16</td>
<td>3,094</td>
<td>1,274</td>
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<tr>
<td>Newfoundland</td>
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<td>246</td>
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<tr>
<td>United States</td>
<td>5,758</td>
<td>648,644</td>
<td>668,405</td>
</tr>
<tr>
<td>American Board</td>
<td>106</td>
<td>60,675</td>
<td>65,601</td>
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Total: 17,065 1,178,788 1,489,549

Church Building Society.—The forty-ninth annual report of the Congregational Church Building Society, presented at the annual meeting in January, gave the total receipts of the year as having been $251,686. Loans and grants amounting to $253,195 had been paid to 93 churches to aid in building houses of worship, and parsonage loans amounting to $22,510 had been paid. In 1947, the aid of these sums of church property valued at $979,297 had been secured. Grants amounting to $42,392 had been voted to 80 churches; church building loans of $79,300 to 39 churches; and loans on parsonages of $30,005 to 61 churches. A considerable number of contributions on the annuity plan had been received.

Home Missionary Society.—The seventy-sixth annual meeting of the Congregational Home Missionary Society was held at Syracuse, N. Y., June 3 to 6. In the absence of the president, the Rev. Newell Dwight Hills, D. D., Mr. William H. Wanamaker presided. Eighteen hundred and forty-five missionaries had been employed during the year in the Territories, of whom 1,262 had been pastors or stated supplies of single congregations and 586 had ministered to two or three or more congregations each. Under their labor the Gospel had been preached regularly or at stated intervals to 2,484 congregations or missions. Two hundred and eighteen missionaries had preached in foreign languages to German, Scandinavian, Bohemian, Polish, French, Mexican, Italian, Spanish, Finnish, Armenian, Greek, and Welsh congregations. The missionaries returned 2,018 Sunday-schools under their special care with about 133,378 pupils. 166 new schools organized, 4,321 additions on confession of faith, 65 churches organized, 42 churches assumed support, and many new church buildings, parsonages, and improvements. The total receipts of the National Society for the year had been $346,840, and its expenditures $293,064. The debt at the beginning of the year had been $303,695, and at the close $39,912, having been reduced $233,783. The auxiliary societies had raised and expended on their own fields during the year $255,612. Adding this sum to the receipts and expenditures of the National Society, the total of receipts for home missions during the year was $602,462, and of expenditures $348,676. The woman's department had conducted twenty years of successful activity. It had been conducted during the past year as a part of the general executive office. Besides the continued publication of its

periodical, the Home Missionary, now monthly, the society had added much to its department of junior literature. The invested funds were controlled under seven heads and including funds temporarily in the hands of trustees and "temporary investments," amounted to $207,590. At the business meeting of the society, the Committee of Fifteen, appointed in the previous year to consider some plan for perfecting the relations between the auxiliaries and the National Society, reported, proposing changes in the constitution intended to substitute for the present voting membership a corporate body elected for a term of years by the churches, to read as follows:

"ARTICLE III. MEMBERSHIP.

"The members of this society shall consist of honorary life members, life members, members elected by the churches, and the officials of the society during their respective terms of office. 1. Any person chosen as president, vice-president, recording secretary, treasurer, corresponding secretary, auditor, or member of the Executive Committee, shall be a voting member during his term of service. 2. Life members appearing on the roll at the date of the passage of this article shall retain their voting right unless it be voluntarily surrendered. 3. The churches shall be represented in the voting membership of this society by members elected in number and manner as follows: Each State association or conference of churches may elect three members, and in addition, one member for every 5,000 church-members; at the first election, three of the State associations or conferences, one-third of the members shall be elected for one year, one-third for two years, and one-third for three years; and thereafter one-third shall be elected each for a term of three years. In any year the State bodies may elect members to fill vacancies. It is recommended that the number of members be in all cases divided between ministers and laymen as nearly equally as is practicable. 4. Honorary life members. Any person on whose behalf $50 shall be paid into the treasury of this society at any one time, or into the treasury of any of its auxiliaries at any one time, accompanied by a request for honorary life membership, shall be an honorary life member, with all the privileges of membership except voting.

"ARTICLE VI. VOTERS.

"All members elected by the churches through their State associations or conferences as herein provided, bringing proper credentials, and life members and officers of the society, who shall be present and cause their names to be registered upon a roll to be made at each annual or other meeting of this society by the recording secretary, and no other persons, shall have the right to vote at the annual election and in annual or other meetings of the society, upon questions there arising."

The committee further recommended that an annual conference be held at the place of the annual meeting of the society, and at an hour preceding its opening session, in which the representatives of the auxiliaries and societies and the officers and Executive Committee of the Congregational Home Missionary Society shall confer with regard to the condition and problems of home missionary work in all parts of the land. The report was adopted and the committee was also resolved that hereafter the president of the society should not hold office for two successive years.

Education Board.—The annual meeting of the Congregational Education Board was held in Boston, Mass., June 11. The receipts of the
society for the year had been $135,288, or $35,612 more than those of the previous year, and it was free from debt, with a small balance in its treasury. It had aided 22 academies and 3 colleges. Five of its 6 schools in Utah were in centers entirely Mormon.

**American Missionary Association.**—The eighth annual meeting of the American Missionary Association was held at New London, Conn., Oct. 21 to 23, the Rev. Washington Gladden, D. D., presiding. The total receipts for the year, including those on account of the Daniel Hand fund, had been $404,291, and the expenditures $368,347. The Daniel Hand Educational fund for colored people was credited with $56,636 as income and $14,440 on endowment account; and other endowment funds of $10,000 had been received. A balance of $73,907 was shown in the report.

The religious and educational work of the association was carried on in 22 States and Territories of the United States, and among people of 6 different races: Christianity, among the Indian, the negro, and the Irish-American, the Chinese, and the Japanese. There were 267 mission schools, with 5,465 pupils; having in all 490 instructors, and showing a total of 14,048 pupils. Of these pupils 93 were in theological, 271 in collegiate, 365 in collegiate preparatory, 1,159 in normal departments. Much attention was given in most of the schools to manual and industrial training. Eleven of the schools were “mountain schools,” among the white people of the mountainous, and rural, and between 96 instructors and 2,198 pupils. Two schools, with 10 instructors and 343 pupils, were in Porto Rico. The Church work in the South included 250 churches, with 139 ministers and missionaries, and 12,155 church-members, who had contributed $2,813 for benevolences and raised $30,298 for church purposes, 17,311 pupils in Sunday-schools, and 1,168 members added on profession during the year. A larger number of churches had been enrolled during the past year than in any year since 1885. In the Indian missions, 20 churches and 10 out-stations were reported, with 47 white and 41 Indian teachers and missionaries, 1,453 church-members, 2,661 pupils in Sunday-schools, and contributions for benevolence and church support of $2,681. Six Indian schools, in Dakota, Montana, and Alaska, returned 342 pupils. While the number of churches in these missions remained the same as in the previous year and the number of subscribers and workers and the benevolent contributions had decreased, substantial gains had been made in church-membership and in the attendance at the 6 schools. An unexpected development was mentioned in Alaska, in that Eskimos from the islands of Bering’s Straits, and even from Siberia, were finding their way to the American islands and coming in touch with the spirit and power of Christianity. At the business meeting of the association, the question of the election of salaried officers by the Executive Committee rather than at the annual meeting was referred; the president of the association was made ex officio a member of the Executive Committee. It was reported that no plan had been matured for holding one annual meeting of all the societies, nor for publishing one magazine in cooperation with the other societies, and that the proposition to have one treasurer for the three societies whose headquarters were in New York had not been found feasible. A plan was substituted providing for a limited corporate and responsible membership of the association. Being, in effect, a notice of a proposed amendment to the constitution, its consideration was deferred to the next year.

**The American Board.—The ninety-third annual meeting of the American Board of Commissioners for Foreign Missions was held at Oberlin, Ohio, Oct. 14 to 17, Mr. Samuel Carrier, Presiding. The Prudential Committee reported that the receipts for the year, not including moneys for the debt, had been $741,454, an increase from the previous year of $44,068. After paying the debt of $102,341, largely through a collection taken at the previous meeting (see Annual Cyclopaedia for 1901, p. 139) an overplus remained of $1,510. Counting in these sums, the grand total of receipts from all sources was $845,105. While the receipts from regular unconditioned donations, individuals, churches, and societies ($465,035) had fallen off $4,285, those contributed through the Woman’s Board ($214,710) had increased $16,055, and those from legacies $49,510. The special gifts amounted to $42,717. The expenditures had been $741,503. The Twentieth Century fund, contemplated to be of $250,000, now amounted to $115,796. It had not been pressed during the past year. Fifty thousand dollars were contributed in behalf of the National Armenian Relief Committee and the Orphans’ Homes in India. Relations were maintained with the Congregational Foreign Mission Board of Canada, whose contributions went largely to the support of the work in the West Central African Mission. The Yale Foreign Missionary Society, connected with Yale University, had been organized to be independent of denominational control, but would cooperate with the board, and was to establish a mission in China.

From the 20 mission fields, with 101 stations, 1,301 out-stations, and 1,679 places for stated preaching, were returned 168 ordained missionaries (15 being physicians), 15 other men physicians, and 360 woman missionaries (12 of them physicians), making, with 6 other assistants, the whole number of 549 laborers sent from the United States; 286 native pastors and, including also native priests, were reported; 732 native catechists, Bible women, and others, totals of 3,581 native laborers and of 4,130 Americans and natives; 324 churches, with 55,645 members, 5,500 having been added during the year, 261 members of Sunday-schools. The whole number of church-members from the first, as nearly as could be learned, was 163,267. The educational department included 14 theological seminaries and station classes, with 167 students for the ministry and 916 students in collegiate training, 118 boarding and high schools, with 10,805 pupils, and 1,134 common schools, with 46,149 pupils; making the whole number under instruction, 60,964. The native contributions, so far as reported, amounted to $107,512. An additional college at Smyrna had been formally recognized, making 3 colleges in the Western Turkey mission. Central Turkey College, having completed twenty-six years of work, was beginning to pass gradually into the hands of the native converts. In the Marshall Islands the church-membership had almost trebled in ten years, and the German Government was friendly. The devastated missions in northern China had been largely restored. A headquarters building had been completed for the mission at Hong-Kong, without expense to the board. Advances were mentioned in the African missions. As the tragic incident in the Egyptian Turkey mission was the capture of Miss Ellen M. Stone and a native assistant by brigands and
their retention for six months, when their release was secured on payment of a ransom of $68,200. Nevertheless, the diggings were successful, good progress was made, and there had been a marked growth in the churches. A union evangelistic movement, in which all the evangelical denominations except one were cooperating, was the most notable event in Japan. The Doshisha was now firmly established on a Christian basis, and its diplomas were recognized by the Government.

"The Forward Movement," as a plan was called under which individuals and local churches contributed to the support of special missions or missionaries, was approved, and the Prudential Committee was directed to provide for its maintenance. A proposition made by the Committee of the National Congregational Council that the appointment of paid secretaries be vested in the Executive or Prudential Committee was referred to. In view of certain legal questions arising in connection with a proposition to make some changes in the membership of the board of trustees, the Prudential Committee was given permission to seek to obtain modifications in its charter to meet the case. In view of the extension of German sovereignty and the German language over that region, the Prudential Committee was empowered to transfer the missions in Micronesia, except in Guam, when that can be done advantageously, to societies of other nationalities. A corner-stone was dedicated for a memorial arch of the missionaries of the board in China who lost their lives in the "Boxer" troubles. The arch will stand in the grounds of the university at Oberlin.

Deputation to India and Ceylon.—A deputation which had been appointed by the American Board to visit the missions in India and Ceylon presented the report of its visitation to the Prudential Committee Feb. 4. Besides investigating the specific work of the board, the deputation was called upon to look into the general religious conditions in the country, the progress of Christianity, and the work of Christian missions. Its report related principally to the Ceylon, Madura, and Trichinopoly missions. The deputation found that the Christian movement in India was gaining in momentum with every decade. In the forty years from 1851 to 1891 the number of Protestant Christians had increased 146 per cent, while the population had increased only 20 per cent. But the entire Christian force now in the country, though larger than it had ever been before, was far too small to reach all parts of the empire. The attention of the deputation was frequently called by educated Hindus and by English Government officials to the need of industrial education. A false sentiment prevailed against sending students who had advanced as far as entrance to college engaging in manual labor, and it had created a class of educated illicits. The large proportion of Christian converts were from the lower castes, although there were many devout Christians from among the Brahmins. Every year new castes were reached, and the work was broadening among the other castes. In one school children of 18 different castes lived and studied together. The Government of India was in sympathy with mission work, and the rulers of the nation were interested in it. The Congregational Church in America had 48,922 members, 7,000 of whom were native. Every large Protestant missionary society in the world had its representatives in the field. The mission in Ceylon would probably not call for a mission force larger than it now possessed. In it a more efficient and effective system was needed to meet the cost than in any other mission of the board. The Madura mission, lying in a field in which the American Board worked exclusively, was compact, and marked by the number and prosperity of its educational enterprises and hospitals, and the efficiency of the Young People's Society of Christian Endeavor. In the Marathi mission the stations covered more territory and were farther separated. A proposition had been made to the other evangelical mission boards which use the Marathi language to unite in the conduct of the theological seminary at Ahmednagar upon a union basis, and some of them had responded favorably. The deputation made a number of recommendations, among which was one that the missionaries so modify their courses of instruction that all male pupils aided through the mission should have some practical instruction in productive manual labor adapted to the conditions and needs of the country, and the female pupils also, with necessary modifications; and that such a course be entered upon systematically, so that it should be operative alike in the larger and the smaller missions; and that the mission should provide as much English education as is practicable for carefully selected candidates for the position of pastors and preachers. In the effort to carry the Gospel to the remote corners of the country, a Christian community drawn from various existing castes will necessarily be stronger than if confined to any single class, trade, or caste. The time has passed when missions should provide free education to all who are willing to attend mission schools. As the course of study rises so as to include English, which already has a recognized commercial value, the fees demanded should be increased so as to cover, in a large measure, the increased expense of the higher courses.

Woman's Societies.—The thirty-fourth annual meeting of the Woman's Board of Missions of the Interior was held in Chicago, Oct. 28. The receipts for the year had been $81,220, a larger sum than had been received in any former year, but which still fell short more than $5,000 of the sum actually expended. Contributions were made during the meeting of $2,955 toward paying the debt of $3,500. Accounts were given of enterprises in which the society is interested in Turkey, India, China, Japan, West Africa, Spain, and Micronesia.

Reports made at the annual meeting of the Woman's Home Missionary Association, in Boston, Mass., Oct. 29, showed that it had stations in 20 different States and Alaska, and in Cuba, and was laboring among Americans and foreigners.

The thirty-fifth annual meeting of the Woman's Board of Missions was held in Washington, D. C., Nov. 4 to 9.

Congregational Union of Ontario and Quebec.—The meeting of the Congregational Union of Ontario and Quebec was held at Ota- tawa in June. The Rev. J. F. Gerrie was elected chairman. The annual report showed that there were 82 churches connected with the union, with 7,705 members and 21,000 persons under pastoral care. The total value of church property was $860,000. Forty-three churches were free from debt. The sum of $100,000 had been raised during the year. The figures show an in-
crease of 518 members and $9,500 in contributions. Sixty-two of the churches, with 5,639 members, are in Ontario.

The Congregational churches were visited in September by a deputation of representatives of the Congregational Union of England and Wales, who were despatched in the interests of the Colonial Missionary Society to inquire into the condition and prospects of the Congregationalists of the Dominion, with a view to ascertaining what responsibilities rested upon English Congregationalists for the evangelization of the new territories in the far West.

English Congregationalists.—The English Congregational Year-Book for 1902 gives the number of Congregational churches, chapels, and mission stations in England and Wales as 4,873, with 1,743,583 sittings; of ministers as 3,121, of whom 572 were out of service and 118 were in professional, secretarial, or other work; of lay preachers as 5,128, besides 227 evangelists; of church members as 436,279, showing an increase of 4,762 over the previous year; of members of Sunday-schools, 684,747, showing a decrease of 8,600. The theological seminaries returned 395 students, 209 new students, 62 new churches and 66 new churches and halls had been built during the year. Fifty ministers had been ordained. In 1900, 1,184 churches and mission stations were returned as being on the Continent of Europe and in the British colonies. Of the latter, 143 were in Canada, 283 in Australasia, and 258 in South Africa. The ministers abroad comprised 472 in the colonies and on the Continent of Europe, and 273 English missionaries in the service of the London Missionary Society. The colleges were attended by 401 students, and the 10 institutions of the London Missionary Society in heathen lands by 300 students.

Congregational Union of England and Wales.—The Congregational Union of England and Wales met in its annual assembly in London, May 12. In the absence of the chairman, Principal Caleb Scott, who was seriously ill, the Rev. Dr. G. S. Barrett, of Norwich, presided. In his opening address to the assembly, he gave it general notice of the question of the "United Congregational Church," which was to come before the meeting, said that whatever might be the result of the discussions on the question of the amalgamation of the minds of the two churches, the Church was clear upon the point that the time had come for their churches when, without sacrificing any of their independence, they might be drawn into a federation that should reveal their common brotherhood.

The report of the committee opened with a brief survey of the work achieved by the union since its formation seventy years before. During this period it had established the Colonial, Evangelical Continental, English Chapel-Building, Church Aid, Pastors' Insurance Aid, and Total Abstinence Societies; had created the Memorial Hall Trust, the Pastors' Retiring Fund, the Pastors' Widows' Fund, the Young People's Union, and other societies; had published the Congregational Lectures, the Year-Book, and hymnals; had given substantial aid to Congregational societies through its earnings in the publication department; and had given stimulus to churches from its platform and engendered friendly feeling among them. An important step in the evolution of Congregational affairs had been taken in the creation of an incorporated society, the Congregational Union of England and Wales, in 1886, to provide opportunity for such changes as may commend themselves to a majority of the most earnest men among them."
The proposals of Dr. Parker, as they had been summarized in the circular sent out by the CONGREGATIONALISTS.

The name. The United Congregational Church.

I. Constitution. To be the Confederation of the Congregational Churches of England and Wales.

III. Administration. The churches thus confederated shall appoint a general council, in which shall be vested full powers of administration. This council might consist of representatives nominated by the churches and elected either annually or triennially by the county unions in such proportions as may hereafter be determined. The general council may consist of not less than 600 members.

IV. This general council shall meet at least once in each year, and the business entrusted to it by the United Congregational Church shall be transacted.

While it was conceded that there are certain prerogatives, responsibilities, and privileges which belong to the individual churches, it was maintained that there are other great questions, such as the introduction of standardized national instruction in the ministry, the administration and management of the Congregational societies and institutions, the conduct of missions at home and abroad, etc., which concern all the churches, and that the Congregational faith and order. It was with the latter questions that the general council would have to do.

The churches were asked to answer certain questions: 1, if they approved the federation; 2, if they did not like it, what plan they had to suggest; 3, if they approved the name.

Upon hearing the report of the answers to the circular of the committee, the assembly resolved that the General Committee of the union, having already carefully considered various branches of Congregational reform, and having consulted the churches on Dr. Parker's proposal, is hereby requested to prepare a scheme which may serve to unite Congregational churches more closely for common purposes. And to this end, the General Committee is asked to appoint a special committee of 24, not more than 16 of whom shall be members of its own body, to draft proposals for its consideration. The General Committee is also requested to propose to the assembly as early as practicable. Resolutions were adopted unrestrainedly condemning the education bill and recording the sense of the assembly "not only of the public damage to religion in the bill proposed, but far more of the wound to Christ's body and the grief to the Holy Spirit. We see in it one section of his true flock using an accidental political advantage to compel from the other's conscience the support of teaching which we think (rightly or wrongly) that he has led us to regard as unscriptural and not merely as inadequate. And not only so, but we are forced to support teaching which unchurches us; and yet worse, which invades our hearts by instructing our children to deny their fathers' faith and despise the religion of their homes. The safeguards proposed are, have been, and must be, illusory in practice." Copies of these resolutions were ordered sent to the Archbishops of Canterbury and York, and the Bishops of London, Durham, and Hereford. The final statement of the Twentieth Century fund showed that the total amount contributed had been £710,123; of which £30,132 was for the purchase of land, £407,811 for supplemental funds, and £219,791 (incomplete) for affiliated funds. The sum of £82,492 had been disbursed on account of the central fund, while the supplemental and affiliated funds were shown as having been disbursed to supporting churches and unions. Some churches having made promises, which at present they were unable to fulfill, arrangements had been made to keep the fund open so as to receive their contributions. Of whatever came in half would be forwarded to the London Missionary Society, and the remainder would be divided equally between the Church Aid Society and the Colonial Missionary Society. The Special Committee on a Uniform Code of Rules regarding Ministerial Removals reported concerning the answers of the unions to the propositions sent them, showing a variety of views and action on the subject. The General Committee was instructed to summon a conference of representatives of the county unions to promote the adoption by all of them of the same code of rules. A Sunday-school conference and the annual meeting of the Young People's Union were held in connection with the assembly. The Rev. Dr. H. J. Horton was elected chairman of the union for the ensuing year.

The autumnal meetings of the Union were held at Glasgow jointly with the Congregational Unions of Scotland, on the 21st and 22nd and 23rd. The most prominent subject of the discussions was the education bill, against which the assembly protested most strongly, because, as its resolution reads: "It sacrifices educational efficiency to sectarian and priestly ends. 2. By the summary abolition of the school boards of England and Wales, which have powerfully promoted the education of the people while they have enlarged religious liberty for parents, teachers, and scholars, it has seriously impaired the direct control of the people over schools supported by public funds, while it also tends to withdraw the schools out of the range of their immediate interests.

It has not only been introduced without mandate from the constituents, but it is also being forced through Parliament in the face of direct indications that the opinion of the country is opposed to its main provisions. 4. It violates the principle of civil and religious liberty (a) by placing the entire support of education in the hands of the Government, and (b) by confining the appointment of teachers in denominational schools to the Government. This assembly therefore calls upon his Majesty's Government to withdraw the bill or forthwith to appeal to the country upon it. And if the act is enforced upon the nation, the assembly is prepared to advise its members to refuse to pay the rates." Only six votes were cast against the resolution as a whole, but about 20 dissentients were recorded against the final clause advising refusal to pay the rates in the event of the enactment of the bill. The officers of the London Missionary Society represented that £14,000 were still required to clear off the deficiency of the past three years, amounting to £253,000; and that an increase of from 20 to 25 per cent. on the present income was needed to meet the annual expenditure of £151,000, which the board was pledged not to exceed for the next five years. Eighty new missionaries had been sent into the field, but the income had not been proportionately increased. At the meeting of the Congregational Historical Society mention was made of the mass of unedited manuscripts in certain libraries which might afford valuable information upon the subject of the union. By the end of the year, a report was agreed on Historical Points of Contact of English and Scottish Con-
Congregationalism. Papers were read on Difficulties in the Way of Belief which beset the Young, Free Church Life in Rural England, and The Relation of the Evangelical Church of Christ to Social Questions. Meetings were held representative of the Young People, the Women, Congregational Settlements, and the Total Abstinence Association.

The report of the subcommittee appointed to draft a superannuation scheme for ministers embodied a plan resting on a basis of equal contributions by ministers and churches, the amount to be determined by the age when each contribution is paid, the amount of the contributions, and the age at which superannuation begins. A minister's contributions are to cease on his attaining the age of sixty-five, after which, on his retirement, the full amount will be payable. Each separate annual contribution will provide a corresponding annuity beginning at the retiring age, the total annuity being the aggregate secured by the several annual payments. Any minister, or any church on his behalf, may at any time pay a lump sum in order to secure for him an annuity or an increased annuity. A minister may be assured under either of two tables, viz., (1) with no return of contribution, or (2) with a lower rate of interest, the total amount of his own paid contributions in the event of his death or of his retirement through failure of health or other approved cause before the age of sixty-five years.

The English Chapel-Building Society had considered 30 cases during the year, and had made grants to 40 of them, amounting to £2,566. Contributions had fallen off, having been received from only 187 churches. The receipts, apart from interest and dividends on investments and a loan from bank, had amounted to £3,568, of which £2,000 were from the return of advances.

The report of the Congregational Total Abstinence Association showed that while twenty-five years before out of 2,000 Congregational ministers there were 700 abstainers, at the present time out of 2,887 pastors in England and Wales the number of total abstainers was 2,551.

The income of the Colonial Missionary Society, including a grant of £1,000 from the Twentieth Century fund, had been £5,500. The society had worked during the year in 12 colonies, and had sent out 5 young men to the colonial field.

The Pastors' Retirement fund had £9,500 had been paid in annuities to 185 annuitants. On account of the Pastors' Widows' fund £1,221 had been paid to 101 annuitants.

In the third volume of the Transactions of the Congregational Historical Society, published in 1902, is a paper by Dr. F. J. Powicke giving lists of the early separatists compiled from the records of arrests and executions. The striking facts are remarked that the great majority of the number were very young, that they were mostly of the tradesman or artisan class, and that very few of them drew back or wavered.

London Missionary Society.—The one hundred and seventh annual meeting of the London Missionary Society was held in London, May 12. The report showed that the total income from all sources had been £121,000, while the expenditure had risen to £153,700. This left a deficit of £23,000 on the year's working, to be added to the deficit of £30,000 and £15,000 for the previous years. Toward removing this debt £17,945 had been received from the Twentieth Century fund, and more than £20,000 had been already promised by friends and others. The report repeated the amount of £20,000 spent of abandoning some field of labor or increasing the income. The statistics as to the staff of the society and facts in its mission work showed that it employed 206 men and 70 women missionaries, 3,474 native preachers, 1,208 Christian men and 310 Christian women as teachers, and 271 Bible women, and had 64,710 church-members and 194,777 native adherents. The mission Sunday-schools numbered 1,283 and returned 54,246 pupils, while there were 1,642 boys' day-schools, with 59,966 pupils, and 190 girls' day-schools, with 30,467 pupils. The local contributions amounted to £22,116, the school fees to £5,964, and the receipts of the medical missions to £3,343; making a total of £31,414 raised and locally appropriated at mission stations. The report reviewed the condition of the missions in China, where restoration was going on, the Theological College at Hankow had been opened, and education seemed to have received a great impetus from the change in the political situation; in India, where progress was slow but steady; and represented that the reports from Madagascar showed that the troubles of past days were apparently over, and that the missionaries of the society were no longer victims of suspicion and mistrust. The resumption of responsibility for the elementary schools of the and last year for the financial difficulty. The conditions of work in Africa and New Guinea, where the mission was understaffed in consequence of the murder of Messrs. James Chalmers and Oliver Tomkins and the prevalent of exceptional sickness among missionaries and natives, were noticed. The work in Tahiti and the Loyalty Islands and part of that in Madagascar, those regions being now French possessions, had been transferred to the Paris Missionary Society. The secretary of this society was present at the meeting with a fraternal message from the director. He said that in ten years, although there were only 600,000 Protestants in France, the number of missionaries of the Paris society had increased from 37 to 97 and its income from £13,000 to £45,000.

The Gainsborough Tercentenary.—The tercentenary of the Congregational church at Gainsborough, of which John Robinson was pastor, and where the separatists worshipped previously to their flight to Holland, was celebrated June 8 with commemorative services at the John Robinson Memorial Church, which had been built with the aid of funds from the contributions of English and American Congregationalists. Officials and other delegates of the Congregational churches in the United States were present, and brought with them the contributions which had been made in the United States for the liquidation of the debt of the new church. A sermon was preached on Sunday by Prof. Duff, of the United College, Bradford, who made allusion to the events which gave the memorial services their importance. A Free Church meeting was held on Sunday afternoon, when the American delegates spoke in behalf of the Congregationalists of the United States. The tercentenary sermon was preached on Tuesday evening, May 10, by the Rev. Dr. Fairbairn, of Oxford, who spoke of the share of John Robinson and the Pilgrims in spreading the Gospel of Christ. At a public meeting held in the Gainsborough "Old Hall" a paper was read by Mr. Edward McKnight, of the Spalding Public Library, on the historic associations of the Old Hall and its connection with the New England Pilgrims. A bronze tablet to the memory of the Pilgrims, placed in the vestry of the church, is reememorating the cooperation of English and
American Congregationalists in the erection of the John Robinson Memorial, was unveiled by Mr. George Spicer, of Enfield.

The Welsh Congregational Union.—The Welsh Congregational Union, at its annual meeting, held in Carnarvon in June, returned 1,068 incorporated churches, 197 mission rooms, 148,618 full members, 133,611 pupils and 15,197 teachers in Sunday-schools, 651 ministers with and 98 without pastoral charges, 22 ministers ordained during the year, 222 ministerial students, and 274 lay-preachers. During the year £56,574 of chapel debts had been paid, leaving outstanding debts to the amount of £239,038, of which £45,735 represented the cost of new buildings. The voluntary contributions had amounted to £294,835, showing an increase of £40,735. A resolution recommending closer relations with the Congregational Union of England and Wales was passed. Other resolutions welcomed the licensing bill and recommended the use of unfermented wine in the sacrament of the Lord’s Supper. The treasurer of the Twentieth Century Fund represented that the total receipts had been £292,443, nearly half of which had been collected by the secretaries since the last meeting. A connectional publication department had been established, and a Welsh Independent Year-Book was to be issued.

Irish Congregational Union.—The seventy-third annual meeting of the Irish Congregational Union was held at New Row, Coleraine, May 25. The report of the Irish Evangelical Society and Congregational Home Mission showed that there were 12 self-supporting Congregational churches in Ireland, while the remaining 16 churches, with 60 out-stations, were dependent on contributions raised by the society. Contributions from England had decreased in past years, but nearly £2,500 had been paid during the last twelve months in grants to the mission stations. The executive of the union has addressed a memorial to the Royal Commission on Education in Ireland, calling their attention to the fact that there were 123,000 of the population of the country who did not belong to the Roman Catholic, Episcopal, or Presbyterian Church, and asking equal rights for them with these bodies in any legislation that may be proposed, to representation on governing bodies, professorial staff, and students’ roll.

"Speaking as Congregationalists only," the memorial says, "we desire a university system which shall make no inquiry as regards religious opinion."

CONGRESS. The Fifty-seventh Congress, beginning March 4, 1901, and to close March 4, 1903, was composed as follows:

THE SENATE.

William P. Frye, of Maine, President pro temore; Charles G. Bennett, of New York, secretary.

Senators by States, with the expiration of term and party affiliation indicated:

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Republicans, 56; Democrats, 29; Populist, 1; Independent, 1; Fusionist, 1.

James H. Kyle died July 1, 1901; and Alfred B. Kittredge was appointed by the Governor of South Dakota.

William J. Sewell died Dec. 27, 1901; and John F. Dryden was elected to succeed him.

James McMillan died after the close of the first session of the Congress.

THE HOUSE OF REPRESENTATIVES.

David B. Henderson, of Iowa, Speaker; Alexander McDowell, of Pennsylvania, clerk.

Members by States, with the districts and political affiliations indicated:
Oreg.

Pennsylvania.

G. A. Grow, At large, R. 14. M. E. Olmsted, R.
R. H. Foederer, " R. 15. Charles F. Wright, R.
2. Robert Adams, Jr., R. 17. Rufus K. Polk, D.
3. Henry Burk, R. 18. Thaddeus E. Mahon, R.
5. Edward Morrell, R. 20. Alvin Evans, R.
Rhode Island.

1. Malville Bull, R. 2. Adin B. Capron, R.
South Carolina.

1. William Elliott, D. 5. D. E. Finley, D.
4. J. T. Johnson, D.

South Dakota.

Charles H. Burke, At large, R. Eben W. Martin, At large, R.
Tennessee.

5. J. D. Richardson, D. 10. M. R. Patterson, D.
Texas.

1. Thomas H. Ball, D. 8. S. W. T. Lanham, D.
7. Robert L. Henry, D.

Utah.

George Sutherland, At large, R.

Vermont.

1. D. J. Foster, R. 2. Kittredge Haskins, R.

Virginia.


Washington.

F. W. Ousman, At large, R. W. L. Jones, At large, R.

West Virginia.

Wisconsin.

1. Henry A. Cooper, R. 8. J. H. Davidson, R.
4. Theobald Otjes, R. 11. Robert G. Dooley, R.

Wyoming.

Frank W. Mondell, R.

Delegates.

Arizona—Marcus A. Smith, R.
Hawaii—Robert W. Wilcox, R.
New Mexico—Bernard S. Rodey, R.
Ohio—theodore T. Flynn, R.

Republicans, 198; Democrats, 153; Popularists, 4.

Henry H. Aplin, Michigan, was elected in place of Rousseau O. Crump, deceased. The seat of J. J. Butler, Missouri, was declared vacant, June 28, 1902; H. Burd Cassel, Pennsylvania, was elected in place of William Brosius, deceased; Amos J. Cummings died May 2, 1902; Charles L. Knapp, New York, was elected in place of Albert D. Shaw, deceased; Montag F. Wooten, New York, was elected in place of Nicholas Muller, deserted; Asbury F. Liver, South Carolina, was elected in place of J. M. Stokes, deceased; William H. Moody, Massachusetts, resigned to become Secretary of the Navy, May 1, 1902; T. McKenzie Moss, Kentucky, took the place of John S. Rainey, resigned, March 25, 1902; Peter J. Otey, Virginia, died May 4, 1902; Rufus K. Polk, Pennsylvania, died March 5, 1902; Llewellyn Powers, Maine, was elected in place of George A. Boulenger, resigned; Joshua S. Salmon, New Jersey, died May 6, 1902; Dudley G. Wooten, Texas, was elected in place of Robert E. Burke, deceased.

The Congress met for its first session, Monday Dec. 2, 1902. The House of Representatives organized by electing David B. Henderson, of Iowa, speaker by a vote of 192 out of 355; there were 152 votes cast for John D. Richardson, of Tennessee. Alexander McDowell, of Pennsylvania, was chosen clerk; Henry Casson, of Wisconsin, Sergeant-at-Arms; William J. Glenn, of New York, doorkeeper; Joseph C. McIvor, of Ohio, postmaster; and Henry N. Condon, of Michigan, chaplain.

On assuming the chair Mr. Henderson said:

"Gentlemen of the House of Representatives, this high honor which you have conferred upon me I profoundly appreciate. All the more do I appreciate it coming, as it does, with the generous expression from both sides of the Chamber. There is yet left another method for a presiding officer to express his appreciation of such an honor; that is, by a kindly, firm, and faithful administration of the law and the rules that govern this body. It will be my aim to discharge impartially the duties of this office.

"As I said at the opening of the last Congress, no presiding officer can successfully administer the duties of his office unless he has the support of the body over which he presides. I asked for it then; you gave it to me throughout the entire Congress. Permit me once more to invoke that patience, kind consideration, and splendid support which was accorded to me in the last Congress.

"The maker of laws should not be a breaker of laws. We proceed under law and rules; and the duties devolving upon each and all of the membership of this House will be far better conserved if this principle is kept in mind and acted upon."

The rules of the Fifty-sixth Congress were then adopted for the conduct of business in the House, with the following modifications:

1. That the special orders adopted March 8 and March 14, 1900, providing for a method for the consideration of all bills, claim bills, and other private bills, shall be continued during the Fifty-seventh Congress.

2. That the place of the Select Committee on the Fifteenth Census in the rules of the Fifty-sixth Congress shall be filled in the rules of the Fifty-seventh Congress by a standing Committee on the Census, to consist of 13 members, and have jurisdiction of all proposed legislation concerning the census and the apportionment of Representatives.

Resolved further, That there shall be appointed to serve during the Fifty-seventh Congress a Select Committee on Industrial Arts and Expositions, to consist of 9 members, which shall have jurisdiction of all matters (excepting those relating to the transportation and appropriations referable to the Centennial of the Louisiana Purchase and to proposed expositions.

Resolved further, That the Select Committee on the Expositions and Expositions shall be continued during the Fifty-sixth Congress as a select committee.
THE PRESIDENT'S MESSAGE.

Dec. 3, after due notification from the Senate and the House, that they were organized and ready to receive any communication from the President, the annual message was sent in as follows:

To the Senate and House of Representatives:

The Congress assembles this year under the shadow of a great calamity. On the 6th of September President McKinley was shot by an anarchist while attending the Pan-American Exposition at Buffalo, and died in that city on the 14th of that month.

Of the last seven elected Presidents, he is the third who has been murdered, and the bare recital of this fact is sufficient to justify grave alarm among all loyal American citizens. Moreover, the circumstances of this, the third assassination of an American President, have a peculiarly sinister significance. Both President Lincoln and President Garfield were killed by assassins of types unfortunately not uncommon in history; President Lincoln falling a victim to the terrible passions aroused by four years of civil war; President Garfield, the beneficent vanquisher of a disappointed office-seeker. President McKinley was killed by an utterly depraved criminal belonging to that body of criminals who object to all governments, good and bad alike, who are against any form of popular liberty if it is guaranteed by even the most just and liberal laws, and who are as hostile to the upright exponents of social and political reform as to the tyrannical and irresponsible despot.

It is not too much to say that at the time of President McKinley's death he was the most widely loved man in all the United States; while we have never had any public man of his position who has been so wholly free from the bitter animosities incident to public life. His political opponents were the first to bear the heartfelt and most generous tribute to the broad kindliness of nature, the sweetness and gentleness of character which so endeared him to his close associates. To the standard of lofty integrity in public life he united the tender affections and home virtues which are all-important in the make-up of national character. A gallant soldier in the great war of Union and Nation he answered a call to service to all our people because of his conduct in the most sacred and intimate of home relations. There could be no personal hatred of him, for he never gave an example to any one of us; he was as pure and holy and free from selfishness and self-seeking as the sun is in heaven and the moon in the sky. He was one of the bravest soldiers, one of the wisest statesmen, one of the greatest benefactors of his country, and one of the best friends of all the citizens of the nation.

President McKinley was a man of moderate means, a man whose stock sprang from the sturdy tillers of the soil, who had himself belonged among the wage-workers, who had entered the army as a private soldier. Wealth was not struck at when the President was assassinated, but the honest toil which is content with moderate gains after a lifetime of unremitting labor, largely in the service of the public. Still less was power struck at in the sense that power is irresponsible or rendered in the hands of any one individual. The blow was not aimed at tyranny or wealth. It was aimed at one of the strongest champions the wage-worker has ever had; at one of the most faithful representatives of the system of public rights and representative government who has ever risen to the highest office. President McKinley filled that political office for which the entire people voted, and no President—not even Lincoln himself—was ever more earnestly anxious to represent the well-thought-out wishes of the people; his one anxiety in every crisis was to keep in closest touch with the people—to find out what they thought and to endeavor to give expression to their thought, after having endeavored to guide that thought aright. He had just been reelected to the presidency because the majority of our citizens, the majority of our farmers and wage-workers, believed that he had faithfully upheld their interests for four years. They felt themselves in close and intimate touch with him. They felt that he represented so well and so honorably all their ideals and aspirations that they wished him to continue for another four years to represent them. And this was the man at whom the assassin struck! That there might be nothing lacking to complete the Judas-like infamy of his act, he took advantage of an occasion when the President was meeting the people generally; and, availing himself of the occasion, he turned him in kindly and brotherly fellowship, he turned the noble and generous confidence of the victim into an opportunity to strike the fatal blow. There is no baser deed in all annals of crime.

The shock, the grief of the country, are bitter in the minds of all who saw the dark days, while the President yet hovered between life and death. At last the light was still in the kindly eyes and the breath went from the lips that even in mortal agony uttered no words save of forgiveness to his murderer, of love for his friends, and of unaltering trust in the will of the Most High. Such a death, crowning the glory of such a life, leaves us with infinite sorrow, but with such pride in what he had accomplished and in his own personal character, that we feel the blow not as struck at him, but as struck at the nation. We mourn a good and great President who is dead; but while life is here to us, we live today by the splendid achievements of his life and the grand heroism with which he met his death.

When we turn from the man to the nation, the harm done is an example to all our people because of his conduct in the most sacred and intimate of home relations. There could be no personal hatred of him, for he never gave an example to any one of us; he was as pure and holy and free from selfishness and self-seeking as the sun is in heaven and the moon in the sky. He was one of the bravest soldiers, one of the wisest statesmen, one of the greatest benefactors of his country, and one of the best friends of all the citizens of the nation.

The blow was aimed not at this President, but at all Presidents; at every symbol of government. President McKinley was as emphatically the embodiment of the popular will of the nation expressed through the forms of law as a New England town-meeting is in similar fashion the embodiment of the law-abiding purpose and practice of the people of the town. On no conceivable theory could the President be accepted as due to protest against "inequalities in the social order," save as the murder of all the freemen engaged in a town-meeting could be ac-
cepted as a protest against that social inequality which makes a jail a place of safety, more an expression of "social discontent" than picking pockets or wife-beating.

The anarchist, and especially the anarchist in the United States, is merely one type of criminal, more dangerous than any other because he represents the same depravity in a greater degree. The man who advocates anarchy directly or indirectly, in any shape or fashion, or the man who apologizes for anarchists and their deeds, makes himself morally accessory to murder before the fact. The anarchist is a criminal whose perverted instincts lead him to prefer confusion and chaos to the most beneficent form of social order. His protest of concern for working men is outrageous in its impudent falsity; for if the political institutions of this country do not afford opportunity to every honest and intelligent son of toil, then the door of hope is forever closed against him. The anarchist is everywhere not merely the enemy of system and of progress, but the deadly foe of liberty. If ever anarchy is triumphant, its triumph will last for but one red moment, to be succeeded for ages by the gloomy night of despotism.

For the anarchist himself, whether he preaches or practises his doctrines, we need not have one particle more concern than for any ordinary murderer. He is not the victim of social or political injustice. There are no wrongs to remedy in his case. The cause of his criminality is to be found in his own evil passions and in the evil conduct of others, who urge him on in any failure by others or by the state to do justice to him or his. He is a malefactor and nothing else. He is in no sense, in no shape or way, a "product of social conditions," save as a highwayman is "produced" by the fact that an unarmed man happens to have a purse. It is a travesty upon the great and holy names of liberty and freedom to permit them to be invoked in such a cause. No man or body of men preaching anarchistic doctrines should be allowed at large any more than if preaching the murder of some specified private individual. Anarchistic meetings are essentially seditious and treasonable.

I earnestly recommend to the Congress that in the exercise of his wise discretion it should take into consideration the coming to this country of anarchists or persons professing principles hostile to all government and justifying the murder of those who urge them to be stopped. Such individuals as those who not long ago gathered in open meeting to glorify the murder of King Humbert of Italy perpetrate a crime, and the law should insure their rigorous punishment. They and those like them should be kept out of this country; and if found here they should be promptly deported to the country whence they came; and far-reaching provision should be made for the punishment of those who stay. No matter calls more urgently for the wisest thought of the Congress.

The Federal courts should be given jurisdiction over any man who kills or attempts to kill the President or any man by the Constitution or by law is in line of succession for the presidency, while the punishment for an unsuccessful attempt should be proportioned to the enormity of the offense against our institutions.

Anarchy is a crime against the whole human race; and all mankind should band against the anarchist. His crime should be made an offense against the law of nations, like piracy and that form of manstealing known as the slave-trade; for it is of far blacker infamy than either. It should be so all, with civilized powers. Such treaties would give to the Federal Government the power of dealing with the crime.

A grim commentary upon the folly of the anarchist position was afforded by the attitude of the law toward this very criminal who had just taken the life of the President. The people would have torn him limb from limb if it had not been that the law he defied was at once invoked in his behalf. So far from his deed being committed on behalf of the people against the Government, the Government was obliged at once to exert its full police power to save him from instant death at the hands of the people. Moreover, his deed worked not the slightest dislocation in our governmental system, and the danger of a recurrence of such deeds, no matter how great it might grow, would work only in the direction of strengthening and giving harshness to the forces of order. No man will ever be restrained from becoming President by any fear as to his personal safety. If the risk to the President's life became great, it would mean that the office would more and more come to be filled by men of a spirit which would make them resolute and merciless in dealing with every friend of disorder. This great country will not fall into anarchy; and if anarchists should ever become a serious menace to our institutions, they would not merely be stamped out, but would involve in their own ruin every active or passive sympathizer with their doctrines. The American people are slow to anger, but a threatened attack is once kindled it burns like a consuming flame.

During the last five years business confidence has been restored, and the nation is to be congratulated because of its present abounding prosperity. Such prosperity can never be created by law alone, although it is easy enough to destroy it by mischievous laws. If the hand of the Lord is heavy upon any country, if flood or drought comes, human wisdom is powerless to avert the calamity. Moreover, no law can guard us against the consequences of our own folly. The men who are idle or crouched, writing, and such meetings are essentially seditious and treasonable.

I earnestly recommend to the Congress that in the exercise of his wise discretion it should take into consideration the coming to this country of anarchists or persons professing principles hostile to all government and justifying the murder of those who urge them to be stopped. Such individuals as those who not long ago gathered in open meeting to glorify the murder of King Humbert of Italy perpetrate a crime, and the law should insure their rigorous punishment. They and those like them should be kept out of this country; and if found here they should be promptly deported to the country whence they came; and far-reaching provision should be made for the punishment of those who stay. No matter calls more urgently for the wisest thought of the Congress.

The Federal courts should be given jurisdiction over any man who kills or attempts to kill the President or any man by the Constitution or by law is in line of succession for the presidency, while the punishment for an unsuccessful attempt should be proportioned to the enormity of the offense against our institutions.
corporate fortunes. The creation of these great fortunes has not been due to the tariff nor to any other governmental action, but to natural causes in the business world, operating in other countries as they operate in our own.

The process has been whereby a man, a great part of which is wholly without warrant. It is not true that as the rich have grown richer the poor have grown poorer. On the contrary, never have the wage-earner, the worker, the farmer, the small trader, been so well off as in this country and at the present time. There have been abuses connected with the accumulation of wealth; yet it remains true that a fortune accumulated in legitimate business can be accumulated by the person specially benefited only on condition of conferring immense incidental benefits upon others. Successful enterprise, of the type which benefits all mankind, can only exist if the conditions are such as to offer great prizes as the rewards of success.

The captains of industry, who have driven the railway systems across this continent, who have built up our commerce, who have developed our manufactures, who have made good and great good to our people. Without them the material development of which we are so justly proud could never have taken place. Moreover, we should recognize the importance to this material development of leaving as unhampered as is compatible with the public good the strong and forceful men upon whom the success of business operation inevitably rests. The slightest study of business conditions will satisfy any one capable of forming a judgment that the personal equation is the most important factor in a business operation; that the business ability of the man at the head of any business concern, big or little, is usually the factor which fixes the gulf between striking success and hopeless failure.

An additional reason for caution in dealing with corporations is to be found in the international commercial conditions of to-day. The same business conditions which have produced the great aggregations of corporate and individual wealth have made them very potent factors in international commercial competition. Business concerns which have the largest means at their disposal are stronger than those which have the smallest means. The abecond men are naturally those which take the lead in the strife for commercial supremacy among the nations of the world. America has only just begun to take this commanding position in the international business world, which we believe will more and more be hers. It is of the utmost importance that this position be not jeopardized, especially at a time when the overflowing abundance of our own natural resources and the skill, business energy, and mechanical aptitude of our people make foreign markets essential. Under such conditions it would be most unwise to cramp or to fetter the youthful strength of our nation.

Moreover, it can not too often be pointed out that in our efforts to strike with ignorance what are ends the interests of one set of men almost inevitably endanger the interests of all. The fundamental rule in our national life—the rule which underlies all the natural laws that control the human mind, and in the long run, we shall go up or down together. There are exceptions; and in times of prosperity some will prosper far more, and in times of depression some will prosper far less than others; but speaking generally, a period of good times means that all share more or less in them, and in a period of hard times all feel the stress to a greater or less degree. It surely ought not to be necessary to enter into any proof of this statement; the memory of the lean years which began in 1893 is still vivid, and we can contrast them with the conditions in this very year which is now closing. Disaster to great business enterprises can never have its effects limited to the men at the top. It spreads throughout, and while it is bad for everybody, it is worst for those farthest down. The capitalist may be aborn of his luxuries, but the wage-earner may be deprived of even bare necessities.

The mechanism of modern business is so delicate that extreme care must be taken not to interfere with it in a spirit of rashness or ignorance. Many of those who have made it their vocation to denounce the great industrial combinations which are popular, although with technical inaccuracy, known as trusts, appeal especially to hatred and fear. These are precisely the two emotions, particularly when combined with ignorance, which unfit men for the exercise of cool and steady judgment. In facing new industrial conditions, the whole history of the world shows that legislation will generally be both unwise and unworkable after calm inquiry and with sober self-restraint. Much of the legislation directed at the trusts would have been exceedingly mischievous had it not also been entirely ineffective. In accordance with a well-known sociological law, the ignorant or reckless agitator has been the really effective friend of the evils which he has been nominally opposing. In dealing with business interests, for the Government to undertake by crude and ill-considered legislation to do what may turn out to be bad, would be to incur the risk of such far-reaching national disaster that it would be preferable to undertake nothing at all. The men who demand the impossible or the undesirable serve as the allies of the forces with which they are nominally at war, for they hammer those who would endeavor to find out in rational fashion what the wrongs really are and to what extent and in what manner it is practicable to apply remedies.

All this is true; and yet it is also true that there are real and grave evils, one of the chief being overcapitalization because of its many baleful consequences; and practical effort must be made to correct these evils.

There is a wide-spread conviction in the minds of the American people that the great corporations known as trusts have certain features and tendencies hurtful to the general welfare. This springs from no spirit of envy or uncharitableness, nor lack of pride in the great industrial achievements that have placed this country at the head of the nations struggling for commercial supremacy. It does not rest upon a lack of intelligent appreciation of the necessity of meeting changing and changed conditions of trade with new methods, nor upon ignorance of the fact that combination of capital in the effort to accomplish great things is necessary when the world's progress demands that great things be done. It is based upon sincere conviction that combination and concentration should be, not prohibited, but supervised and within reasonable limits only, and in my judgment this conviction is right.

It is no limitation upon property rights or freedom of contract to require that when men receive from Government more, than others; but speaking generally, a period of good times means that all share more or less in them, and in a period of hard times all feel the stress to a greater or less degree. It surely ought not
ful representations as to the value of the property in which the capital is to be invested. Corporations engaged in interstate commerce should be required if they are to exercise a license working to the public injury. It should be as much the aim of those who seek for social betterment to rid the business world of crimes of running as to rid the entire body politic of crimes of violence. Great corporations exist only because they are created and safeguarded by our institutions; and it is therefore our right and our duty to see that they work in harmony with these institutions.

The first essential in determining how to deal with the great industrial combinations is knowledge of the facts—publicity. In the interest of the public, the Government should have the right to inspect and examine the workings of the great corporations engaged in interstate business. Publicity is the only sure remedy which we can now invoke. What further remedies are needed in the way of governmental regulation, or taxation, can only be determined after publicity has been obtained, by process of law, and in the course of administration. The first requisite is knowledge, full and complete—knowledge which may be made public to the world.

Artificial bodies such as corporations and joint-stock or other associations, depending upon any statutory law for their existence or privileges, should be subject to proper governmental supervision, and full and accurate information as to their operations should be made public regularly at reasonable intervals.

The large corporations, commonly called trusts, should be prohibited to do business in many States, often doing very little business in the State where they are incorporated. There is utter lack of uniformity in the State laws about them; and as no State has any exclusive interest in or power over their acts, it has in practice proved impossible to get adequate regulation through State action. Therefore, in the interest of the whole people, the nation should, without interfering with the power of the States in the matter itself, also assume power of supervision and regulation over all corporations dealing with the national business. This is especially true where the corporation derives a portion of its wealth from the existence of some monopolistic element or tendency in its business. These facts should be brought to the attention of the investor; banks are subject to it, and in their case it is now accepted as a simple matter of course. Indeed, it is probable that supervision of corporations by the National Government need not go so far as is now the case with the supervision exercised over them by so conservative a State as Massachusetts, in order to produce excellent results.

When the Constitution was adopted, at the end of the eighteenth century, no human wisdom could foretell the sweeping changes, alike in industrial and political conditions, which were to take place by the beginning of the twentieth century. At that time it was accepted as a matter of course that the several States were the proper authorities to regulate, so far as was then necessary, the comparatively insignificant and strictly localized corporate bodies of the day. The conditions are now wholly different and wholly different action is called for. I believe that a law can be passed which will prevent the above indicated; profiting by the experience gained through the passage and administration of the interstate commerce act. If, however, the judgment of the Congress is that it lacks the constitutional power to pass such an act, then a constitutional amendment should be submitted to confer the power.

There should be created a Cabinet officer, to be known as Secretary of Commerce and Industries, as provided in the bill introduced at the last session of the Congress. It should be his province to deal with commerce in its broadest sense; including among many other things whatever concerns labor and all matters affecting the great business corporations and our merchant marine.

The course proposed is one phase of what should be a comprehensive and far-reaching scheme of constructive statesmanship for the purpose of broadening our markets, securing our business interests on a safe basis, and making firm our new position in the international industrial world; while scrupulously safeguarding the rights of wage-worker and capitalist, of investor and private citizen, so as to secure equity as between man and man in this republic.

With the sole exception of the farming interest, no one matter is of such vital moment to our whole people as the welfare of the wage-workers. If the farmer and the wage-worker are well off, it is absolutely certain that all others will be well off, too. It is therefore a matter for hearty congratulation that on the whole wages are higher to-day in the United States than ever before in our history, and far higher than in any other country. The standard of living is also higher than ever before. Every effort of legislator and administrator should be bent to secure the permanency of this condition of things and its improvement, if ever possible. Not only must our labor be protected by the tariff, but it should also be protected so far as it is possible from the presence in this country of any laborers brought over by contract, or of those who, coming freely, yet represent a standard of living so depressed that they can undersell our men in the labor market and drag them to a lower level. I regard it as necessary, with this end in view, to reenact immediately the law excluding Chinese laborers and to strengthen it wherever necessary in order to make its enforcement entirely effective.

The National Government should provide the highest quality of service from its employees; and in return it should be a good employer. If possible legislation should be passed, in connection with the act in such supervision, will render effective the efforts of different States to do away with the competition of convict contract labor in the open labor market. So far as practicable under the conditions of Government work, provision should be made to render the enforcement of the eight-hour law easy and certain. In all industries carried on directly or indirectly for the United States Government women and children should be protected from excessive hours of labor, from night work, and from work under unsanitary conditions. The Government should provide in its contracts that all work should be done under "fair" conditions, and in addition to setting a high standard should uphold it by proper inspection. Extending if necessary to the subcontractors. The Government should forbid all night work for women and children, as well as excessive overtime. For the District of Columbia a good factory law should be passed; and, as a powerful the National Government to exercise control along the lines above indicated; profiting by the experience gained through the passage and administration of the interstate commerce act. If, however, the judgment of the Congress is that it lacks the constitutional power to pass such an act, then a constitutional amendment should be submitted to confer the power.
American wage-workers work with their heads as well as their hands. Moreover, they take a keen pride in what they are doing; so that, independent of the reward, they wish to turn out a perfect job. This is the great secret of our success in competition with the labor of foreign countries.

The most vital problem with which this country, and for that matter the whole civilized world, has to deal, is the problem which has for one side the betterment of social conditions, moral and physical, in large cities, and for another side the effort to deal with that tangle of far-reaching questions which we group together when we speak of "labor." The chief factor in the success of each man-wage worker, farmer, and capitalist alike—must ever be the sum total of his own individual qualities and abilities. Second only to this comes the power of acting in combination or association with others. Very great good has been and will be accomplished by associations or unions of wage-workers, when managed with forethought, and when they combine insistence upon their own rights with law-abiding respect for rights of others. The display of these qualities in such bodies is a duty to the nation no less than to the associations themselves. Finally, there must also in many cases be active pressure from the frantic effort to safeguard the rights and interests of all. Under our Constitution there is much more scope for such action by the State and the municipality than by the nation. But perhaps most of all, as those touched on above the National Government can act.

When all is said and done, the rule of brotherhood remains as the indispensable prerequisite to success in the kind of national life for which we strive. Each man must work for himself, and unless he works outside help cannot avail him; but each man much remember also that he is indeed his brother's keeper, and that while no man who refuses to walk can be carried with advantage to himself or any one else, yet that each at times stumbles or halts, that each at times needs to have the helping hand outstretched to him. To be permanently effective, aid must always take the form of helping a man to help himself; and we can all best help ourselves to the power that in the work that is of common interest to all.

Our present immigration laws are unsatisfactory. We need every honest and efficient immigrant, and our immigration laws should be such as to attract every immigrant who comes here to stay, who brings here a strong body, a stout heart, a good head, and a resolute purpose to do his duty well in every way and to bring up his children as law-abiding and God-fearing members of the community. But there should be a comprehensive law enacted with the object of working a threefold improvement over our present system. First, we should aim to exclude absolutely not only all persons who are known to be believers in anarchistic principles or members of anarchistic societies, but also all persons who are of a low moral tendency or of unsavory reputation. This means that we should require a more thorough system of inspection abroad and a more rigid system of examination at our immigration ports, the former being especially necessary.

The second object of a proper immigration law ought to be to secure by a careful and not merely perfunctory examination test some intelligent capacity to appreciate American institutions and act sanely as American citizens. This would not keep out all anarchists, for many of them belong to the intelligent criminal class. But it would do what is also in point, that is, tend to decrease the sum of ignorance, so potent in producing the envy, suspicion, malignant passion, and hatred of order, out of which anarchistic sentiment inevitably springs. Finally, all persons should be excluded who are below a certain standard of economic fitness to enter our industrial field as competitors with American labor. There should be proper proof of personal capacity to earn an American living and enough money to insure a decent start under American conditions. This would stop the influx of cheap labor, and the resulting competition which gives rise to so much of bitterness in American industrial life; and it would dry up the springs of the pestilential social conditions in our great cities where anarchistic organizations have their greatest possibility of growth.

Both the educational and economic tests in a wise immigration law should be designed to protect and elevate the general body politic and social. A very close supervision should be exercised over the steamship companies which mainly bring over the immigrants, and they should be held to a strict accountability for any infringement of the law.

There is general acquiescence in our present tariff system as a national policy. The first requisite to our prosperity is the certainty and stability of this economic policy. Nothing could be more unwise than to disturb the business interests of the country by any general tariff change at this time, when, doubt, apprehension, uncertainty are exactly what we most wish to avoid in the interest of our commercial and material well-being. Our experience in the past has shown that sweeping revisions of the tariff are apt to produce conditions closely approaching panic in the business world. Yet it is not only possible, but eminently desirable, to combine with the stability of our economic system a supplementary system of reciprocal benefit and obligation with other nations. Such reciprocity is an incident and result of the firm establishment and preservation of our present economic policy. It was specially provided for in the present tariff law.

Reciprocity must be treated as the handmaiden of protection. Our first duty is to secure the protection granted by the tariff in every case where it is needed is maintained, and that reciprocity be sought for so far as it can safely be done without injury to the citizen, every immigrant who comes here to stay, who brings here a strong body, a stout heart, a good head, and a resolute purpose to do his duty well in every way and to bring up his children as law-abiding and God-fearing members of the community. But there should be a comprehensive law enacted with the object of working a threefold improvement over our present system. First, we should aim to exclude absolutely not only all persons who are known to be believers in anarchistic principles or members of anarchistic societies, but also all persons who are of a low moral tendency or of unsavory reputation. This means that we should require a more thorough system of inspection abroad and a more rigid system of examination at our immigration ports, the former being especially necessary.

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CONGRESS. (The President's Message)

tariff as to enable us to take from them those products which we can use without harm to our own industries and labor, or the use of which will be marked beneficent.

It is most important that we should maintain the high level of our present prosperity. We have now reached the point in the development of our interests where we are not only able to supply our own markets, but to produce a constantly growing surplus for which we must find markets abroad. To secure these markets we can utilize the rating duties in any case where they are no longer needed for the purpose of protection, or in any case where the article is not produced here and the duty is no longer necessary for revenue, giving us something to offer in exchange for what we ask. The cordial relations with other nations which are so desirable will naturally be promoted by the course thus required.

The natural line of development for a policy of reciprocity will be in connection with those of our productions which no longer require all of our surplus output, to establish them upon a sound basis, and with those others where either because of national or of economic causes we are beyond the reach of successful competition.

I ask the attention of the Senate to the reciprocity treaties laid before it by my predecessor.

The condition of the American merchant marine must be such as to call for immediate remedial action by the Congress. It is discreditable to us as a nation that our merchant marine should be utterly insignificant in comparison to that of other nations which overtop in other forms of business. We should not longer submit to conditions under which only a trifling portion of our great commerce is carried in our own ships. To remedy this state of things would not merely serve to build up our shipping interests, but it would also result in benefit to all who are interested in the permanent establishment of a wider market for American products, and would provide an auxiliary force for the navy. Ships work for their own countries just as railroads work for their terminal points. Shipping lines, if established to the principal countries with which we deal, would be of political as well as commercial benefit. From every standpoint it is unwise for the United States to continue to rely upon the ships of competitors for certain portions of our trade. It should be made advantageous to carry American goods in American-built ships.

At present American shipping is under certain great disadvantages when put in competition with the shipping of foreign countries. Many of the fast foreign steamships, at a speed of 14 knots or above, are subsidized; and all our ships, sailing-vessels and steamers alike, cargo carriers of slow speed and mail-carrying of high speed, have to meet the fact that the original cost of building American ships is greater than is the case abroad; that the wages paid American officers and seamen are very much higher than those paid the officers and seamen of foreign competing countries; and that the standard of living on our ships is far superior to the standard of living on the ships of our commercial rivals.

Our Government should take such action as will remedy these inequalities. The American merchant marine is greater than ever before.

The act of March 14, 1900, intended unequivocally to establish gold as the standard money and to maintain at a parity therewith all forms of money medium in use with us, has been shown to be timely and judicious. The price of our Government bonds in the world's market, when compared with the price of similar obligations issued by other nations, is a flattering tribute to our public credit. This condition it is evidently desirable to maintain.

In many respects the national banking law furnishes sufficient liberal scope for the exercise of the banking function; but there seems to be need of better safeguards against the deranging influence of commercial crises and financial panics. Moreover, the currency of the country should be made responsive to the demands of our domestic trade and commerce.

The collections from duties on imports and internal taxes continue to exceed the ordinary expenditures of the Government, thanks mainly to the reduced army expenditures. The utmost care should be taken not to reduce the revenues so that there will be any possibility of a deficit; but, after providing against any such contingency, means should be adopted which will bring the revenues more nearly within the limit of our actual expenses. In this connection the Secretary of the Treasury considers all these questions at length, and I ask your attention to the report and recommendations.

I call special attention to the need of strict economy in expenditures. The fact that our national needs forbid us to be niggardly in providing whatever is actually necessary to our well-being should not be doubted; but it is doubly hard to husband our national resources, as each of us husbands his private resources, by scrupulous avoidance of anything like wasteful or reckless expenditure. Only by avoiding of spending money on what is needless or unjustifiable can we legitimately keep our income to the point required to meet our needs that are genuine.

In 1887 a measure was enacted for the regulation of interstate railways, commonly known as the interstate commerce act. The cardinal provisions of that act were that railway rates should be just and reasonable and that all shippers, localities, and commodities should be accorded equal treatment. A commission was created and endowed with what were supposed to be the necessary powers to execute the provisions of this act.

That law was largely an experiment. Experience has shown the wisdom of its purposes, but it has also shown, possibly that some of its requirements are not practical; and the law has been devised for the enforcement of its provisions are defective. Those who complain of the management of the railways allege that established rates are not maintained; that rebates and similar devices are habitually resorted to; that these preferences are usually in favor of the large shipper; that they drive out of business the smaller competitor; that while many rates are too low, many others are excessive; and that gross preferences are made, affecting both localities and commodities. Upon the other hand, the railways assert that the law, by its very terms tends to produce many of these illegal practices by depriving carriers of that right of concerted action which they claim is necessary to establish and maintain non-discriminating rates.

The act should be amended. The railway is a public servant. Its rates should be just to and open to all shippers alike. The Government wants it to be seen to it if it is to the ocean.

The act of March 14, 1900, intended unequivocally to establish gold as the standard money and to maintain at a parity therewith all forms of money medium in use with us, has been
CONGRESS. (THE PRESIDENT'S MESSAGE.)

life-blood of this nation flows. Nothing could be more foolish than the enactment of legislation which would unnecessarily interfere with the development and operation of these commercial agencies. The subject is of great importance and calls for the earnest attention of the Congress.

The Department of Agriculture during the past fifteen years has steadily broadened its work on economic lines, and has accomplished results of real value in upbuilding domestic and foreign trade. It has gone into new fields until it is now in touch with all sections of our country and with two of the island groups that have lately come under our jurisdiction, whose people must look to agriculture as a livelihood. It is searching the world for grains, grasses, fruits, and vegetables specially fitted for introduction into localities in the several States and Territories where they may add materially to our resources. By scientific attention to soil survey and possible new crops, to breeding of new varieties of plants, to experimental shipments, to animal industry and applied chemistry, very practical aid has been given. The data thus collected and published shows what may be accomplished.

The products of the farm have taken an unprecedented place in our export trade during the year that has just closed.

The opinion throughout the United States has moved steadily toward a just appreciation of the value of forests, whether planted or of natural growth. The great part played by them in the nutrition of our national wealth is now more fully realized than ever before.

Wise forest protection does not mean the withdrawal of forest resources, whether of wood, water, or grass, from contributing their full share to the welfare of the people, but, on the contrary, gives the assurance of larger and more certain supplies. The fundamental idea of forestry is the perpetuation of forests by use. Forest protection is not an end of itself; it is a means to increase and sustain the resources of our country and the industries which depend upon them. The protection of the forests is an inherent part of the business necessity. We have come to see clearly that however destroys the forest, except to make way for agriculture, threatens our well-being.

The practical usefulness of the national forest reserves to the mining, grazing, irrigation, and other interests of the regions in which the reserves lie has led to a wide-spread demand by the people for the extension of the forest for the future. The forest reserves will inevitably be of still greater use in the future than in the past. Additions should be made to them whenever practicable, and their usefulness should be increased by a thoroughly business-like management.

At present the protection of the forest reserves rests with the General Land Office, the mapping and description of their timber with the United States Geological Survey, and the preparation of plans for their conservative use with the Bureau of Forestry, which is also charged with the general advancement of practical forestry in the United States. These various functions should be united in the Bureau of Forestry, to which they properly belong. The present diffusion of responsibility is bad from every standpoint. It prevents that effective cooperation between the Government and the men who utilize the resources of the reserves without which the interests of both must suffer. The scientific bureaus generally should be put under the Department of Agriculture. The President should have by law the power of transferring lands for use as forest reserves to the Department of Agriculture. He already has such power in the case of lands needed by the Departments of War and the Navy.

The wise administration of the forest reserves will be not less helpful to the interests which depend on water than to those which depend on wood and grass. The water-supply itself depends upon the forest. In the arid region it is water, not land, which measures production. The western half of the United States would sustain a population greater than that of our whole country to-day if the waters that now run to waste were saved and used for irrigation. The forest and water problems are perhaps the most vital internal questions of the United States.

Certain of the forest reserves should also be made preserves for the wild forest creatures. All of the reserves should be better protected from fires. Many of them need special protection because of the great injury done by live stock, above all by sheep. The increase in deer, elk, and other animals in the Yellowstone Park area shows what may be accomplished. Certain forests are properly protected by law and properly guarded. Some of these areas have been so denuded of surface vegetation by overgrazing that the ground-breeding grouse and quail, and many mammals, including deer, have been exterminated or driven away. At the same time the water-storing capacity of the surface is destroyed or destroyed, thus promoting floods in times of rain and diminishing the flow of streams between rains.

In cases where natural conditions have been restored for a few years, vegetation has again carpeted the ground; birds and deer are coming back, and hundreds of persons, especially from the immediate neighborhood, come each summer to enjoy the privilege of camping. Some at least of the forest reserves should afford perpetual protection to the native fauna and flora, safe refuges to our rapidly diminishing wild animals of the larger kinds, native burial grounds for the ever-increasing numbers of men and women who have learned to find rest, health, and recreation in the splendid forests and flowing meadows of our mountains. The forest reserves should be set apart forever for the use and benefit of our people as a whole and not sacrificed to the short-sighted greed of a few.

The forests are natural reservoirs. By restraining the streams in flood and replenishing them in drought they make possible the use of waters otherwise wasted. They prevent the soil from washing, and so protect the storage-reservoirs from filling up with silt. Forest conservation is therefore an essential condition of water conservation.

The forests alone can not, however, fully regulate and conserve the waters of the arid region. Great storage-works are necessary to equalize the flow of streams and to save the flood waters. Their construction has been conclusively shown to be an undertaking too vast for private effort. Nor can it be best accomplished by the individual States acting alone. Far-reaching interstate problems are involved; and the resources of single States would often be inadequate. It is properly a national function, at least in some of its features. It is as right for the National Government to make the necessary steps and to see that the resources of the arid region useful by engineering works for water storage as to make useful the rivers and harbors of the humid region by engineering.

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works of another kind. The storing of the floods in reservoirs at the head waters of our rivers is but an enlargement of our present policy of river control, under which levees are built on the lower reaches of the same streams.

The Government should construct and maintain these reservoirs as it does other public works. Where their purpose is to regulate the flow of streams, the water should be turned freely into the channels in the dry season to take the same course under the same laws as the natural flow.

The reclamation of the unsettled arid public lands presents a different problem. Here it is not enough to regulate the flow of streams. The object of the Government is to dispose of the land to settlers who will build homes upon it. To accomplish this object water must be brought within their reach.

The pioneer settlers on the arid public domain chose their homes along streams from which they could themselves divert the water to reclaim their holdings. Such opportunities are practically gone. There remain, however, vast areas of public land which can be made available for homestead settlement, but only by reservoirs and main-line canals impracticable for private enterprise. These irrigation works should be built by the Government. The lands reclaimed by them should be reserved by the Government for actual settlers, and the cost of construction should so far as possible be repaid by the land reclaimed. The distribution of the water, the division of the streams among irrigators, should be left to the settlers themselves in conformity with State laws and without interference with those laws or with vested rights. The policy of the National Government should be to aid irrigation in the several States and Territories in such manner as will enable the people in the local communities to help themselves, and as will stimulate needed reforms in the State laws and regulations governing irrigation.

The reclamation and settlement of the arid lands will enrich every portion of our country, just as the settlement of the Ohio and Mississippi valleys brought prosperity to the Atlantic States. But what can and what cannot be safely attempted, by the early efforts, which must of necessity be partly experimental in character. At the very beginning the Government should make clear, beyond shadow of doubt, its intention to pursue this policy on lines of the broadest public interest. No reservoir or canal should ever be built to satisfy selfish personal or local interests, but only to what can not be safely attempted, by the early efforts, which must of necessity be partly experimental in character. At the very beginning the Government should make clear, beyond shadow of doubt, its intention to pursue this policy on lines of the broadest public interest. 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No reservoir or canal should ever be built to satisfy selfish personal or local interests, but only to what can
largest number of people, but to create for this industry the best possible social and industrial conditions; and this requires that we not only understand the existing situation, but avail ourselves of the best experience of the time in the solution of its problems. A careful study should be made, both by the nation and the localities, of the irrigation laws and conditions here and abroad. Ultimately it will probably be necessary for the nation to cooperate with the several arid States in proportion as these States by their legislation and administration show themselves fit to receive it.

In Hawaii our aim must be to develop the territory on the traditional American lines. We do not wish a region of large estates tilled by cheap labor; we wish a healthy American community of men who themselves till the farms themselves; who should be shaped with this end in view; the well-being of the average home-maker must afford the true test of the healthy development of the islands. The land policy should be nearly as possible be modeled on our homestead system.

It is a pleasure to say that it is hardly more necessary to report as to Porto Rico than as to any other of our territories within our continental limits. The island is thriving as never before, and it is being administered efficiently and honestly. Its people are now enjoying liberty and order under the provisions of the organic law, and upon this fact we congratulate them and ourselves. Their material welfare must be as carefully and jealously considered as the welfare of any other of our territories. We have given them the great gift of free access for their products to the markets of the United States. I ask the attention of the Congress to the need of legislation concerning the public lands of Porto Rico.

In Cuba such progress has been made toward putting the independent government of the island upon a firm footing that before the present session of the Congress closes I think for an accomplished fact. Cuba will then start as her own mistress; and to the beautiful Queen of the Antilles, as she unfolds this new page of her development, we extend the best wishes which elsewhere I have discussed the question of reciprocity. In the case of Cuba, however, there are weighty reasons of morality and national interest which would be held to have a peculiar application, and I most earnestly ask your attention to the wisdom, indeed to the vital need, of providing for a substantial reduction in the tariff duties on Cuban imports into the United States. Cuba has in her Constitution affirmed what we desired, that she should stand, in international matters, in closer and more friendly relations with us than with any other power; and we are bound by every consideration of honor and expediency to pass commercial measures in the interest of her material well-being.

In the Philippines our problem is larger. They are very rich tropical islands, inhabited by many varying tribes, representing widely different stages of progress toward civilization. Our earnest effort is to help these people upward along the stony and difficult path that leads to self-government. We hope to make our administration represent the people, not merely as the delegate of the United States, by making it of the highest benefit to the Filipinos themselves; and as an earnest of what we intend to do, we point to what we have done. Already a great part of the islands have already acquired a substantial degree of governmental autonomy, and our system of governmental honesty and efficiency has been attained in the Philippines than ever before in their history.

It is no light task for a nation to achieve the temperamental qualities without which the institutions of free government are but an empty mockery. Our people are now successfully governing themselves, because for more than a hundred years they have been slowly fitting themselves, sometimes consciously, sometimes unconsciously, toward this end. What has taken us thirty generations to achieve, we can not expect to see another race accomplish out of hand, especially when large portions of that race start very far behind the point which our ancestors had reached even thirty years ago. In dealing with the Philippine people we must show both patience and strength, forbearance and steadfast resolution. Our aim is high. We do not desire to do for the islands the same things that have been done for tropic peoples by even the best foreign governments. We hope to do for them what has never before been done for any people of the tropics—to make it fit for self-government after the fashion of the really free nations.

History may safely be challenged to show a single instance in which a people so unequal in means as ours, having been forced by the exigencies of war to take possession of an alien land, has behaved to its inhabitants with the disinterested zeal for their progress that has been shown in the Philippines. To leave the islands at this time would mean that they would fall into a welter of murderous anarchy. Such desertion of duty on our part would be a defect to our own humanity. The character of Gov. Taft and of his associates and subordinates is a proof, if such be needed, of the sincerity of our effort to give the islanders a constantly increasing measure of self-government exactly as fast as they show themselves fit to exercise it. Since the civil government was established not an appointment has been made in the islands with any reference to considerations of political influence, or ought else save the fitness of the man and the needs of the service.

In our anxiety for the welfare and progress of the Philippines, it may be that here and there we have gone too rapidly in giving them independence and self-government. It is on this side that our error, if any, has been committed. No competent observer, sincerely desirous of finding out the facts and influenced only by a desire to see the islands, can assert that we have not gone far enough. We have gone to the very verge of safety in hastening the process. To have taken a single step farther or faster in advance would have been folly and weakness, and might well have been crime. We are extremely anxious that the natives shall show the power of governing themselves. We are anxious first, for their sakes, and next, because it relieves us of a great burden. There need not be the slightest fear of our not continuing to give them all the liberty for which they are fit.

The only fear is lest in our overanxiety we give them a degree of independence for which they are not fit, thereby inviting reaction and disaster. As fast as possible we should hold to a plan that in a given district the people can govern themselves, self-government having been given in that district. There is not a locality fitted for self-government which is not. But we hope that it may well be that in certain cases it will have to be withdrawn because the inhabitants show themselves unfit to exercise it; such instances will be few. The words of our President are not the slightest chance of our failing to show a
sufficiently humanitarian spirit. The danger comes in the opposite direction. The idea of loss and a claim may be secured in the islands. The insurrection has become an affair of local banditti and marauders, who deserve no higher regard than the brigands of portions of the Old World. Encouragement, direct or indirect, to these insurgents stands on the same footing as encouragement to hostile Indians in the days when we still had Indian wars. Exactly as our aim is to give to the Indian who remains peaceful the fullest and amnestiest consideration, but to have it understood that we will show no weakness if he goes on the war-path, so we must make it evident, unless we are false to our own traditions and to the demands of civilization and humanity, that while we will do everything in our power for the Filipino who is peaceful, we will take the sternest measures with the Filipino who follows the path of the insurrecto and the ladrone.

The heartiest praise is due to large numbers of the natives of the islands for their steadfast loyalty. The Macabebees have been conspicuous for their courage and devotion to the flag. I recommend that the Secretary of War be empowered to take such action in the way of aiding those of these men who are crippled in the service and the families of those who are killed.

Time has come when there should be additional legislation for the Philippines. Nothing better can be done for the islands than to introduce industrial enterprises. Nothing would benefit them more than throwing them open to industrial development. The connection between idleness and mischief is proverbial, and the opportunity to do remunerative work is one of the surest preventives of war. Of course no business man will go into the Philippines unless it is to his interest to do so; and it is immensely to the interest of the islands that he should go in. It is therefore necessary that the Congress should pass laws by which the resources of the islands can be developed; so that franchises (for limited terms of years) can be granted to companies doing business in them, and every encouragement be given to the incoming of business men of every kind.

Not to permit this is to do a wrong to the Philippines. The franchise laws must be granted and the business permitted only under regulations which will guarantee the islands against any kind of improper exploitation. But the vast natural wealth of the islands must be developed, and the capital willing to develop it must be given the opportunity. The field must be thrown open to individual enterprise, which has been the real factor in the development of every region over which our flag has flown. It is urgently necessary to enact suitable laws dealing with general transportation, mining, banking, currency, homesteads, and the use and ownership of the lands and timber. These laws will give free play to industrial enterprise; and the commercial development which will surely follow will afford to the people of the islands the best proofs of the sincerity of our desire to aid them.

I call your attention most earnestly to the crying need of a cable to Hawaii and the Philippines. We are continuing from the Philippines to points in Asia. We should not defer a day longer than necessary the construction of such a cable. It is demanded not merely for commercial but for political and military considerations. Either the Congress should immediately provide for the construction of a Government cable, or else an arrangement should be made by which like advantages to those accruing from a Government cable may be secured to the Government by contract with a private cable company.

No single great material work which remains to be undertaken on this continent is of such consequence to the American people as the building of a canal across the isthmus connecting North and South America. Its importance to the nation is by no means limited merely to its material effects upon our business prosperity; and yet with view to these effects alone it would be to the last degree important for us immediately to begin it. While its beneficial effects would perhaps be most marked upon the Pacific coast and the Gulf and South Atlantic States, it would also greatly benefit other sections. It is emphatically a work which it is for the interest of the entire country to begin and complete as soon as possible; it is one of those great works which only a great nation can undertake with prospects of success, and which when done are not only permanents to the national material interests, but standing monuments to its constructive ability.

I am glad to be able to announce to you that our negotiations with Great Britain, conducted on both sides in a spirit of friendliness and mutual good-will and respect, have resulted in my being able to lay before the Senate a treaty which if ratified will enable us to begin preparations for an isthmian canal at any time, and which guarantees to this nation every right that it has ever asked in connection with the canal. In a word, a fuller treaty, so long recognized as inadequate to supply the base for the construction and maintenance of a necessarily American ship-channel, is abrogated. It specifically provides that the United States alone shall do the work of building and assume the responsibility of safeguarding the canal and shall regulate its neutral use by all nations on terms of equality without the guaranty or interference of any outside nation from any quarter. The signed treaty will at once be laid before the Senate, and if approved the Congress can then proceed to give effect to the advantages it secures us by providing for the building of the canal.

The true end of every great and free people should be self-determining peace; and this nation most earnestly desires sincere and cordial friendship with all others. Over the entire world, of recent years, wars between the great civilized powers have become less and less frequent. Wars with barbarous and semibarbarous peoples come in an entirely different category, being merely a most regrettable but necessary international police duty which must be performed for the sake of the welfare of mankind. Peace can only be kept with certainty where both sides wish to keep it; but more and more the civilized peoples are realizing the wicked folly of war and are attaining that condition of just and intelligent regard for the rights of others which will in the end, as we hope and believe, make world-wide peace possible. The peace conference at The Hague gave definite expression to this hope and belief and marked a stride toward their attainment.

The same peace conference acquiesced in our statement of the Monroe doctrine as compatible with the purposes and aims of the conference. The Monroe doctrine should be the cardinal feature of the foreign policy of all the nations of the two Americas, as it is of the United States. Just seventy-eight years have passed since Presi-
dent Monroe in his annual message announced
not to be considered as subjects for future coloni-
ization by any European power." In other words,
the Monroe doctrine is a declaration that there
must be no territorial aggression by any non-
American power at the expense of any
American power on American soil. It is no wise
intended as hostile to any nation in the Old
World. Still less is it intended to give cover to
any aggression by one New World power at the
expense of any other. It is simply a step, and a
long step, toward assuring the universal peace
of the world by securing the possibility of perma-
nent peace on this hemisphere.

During the past century other influences have
established the permanence and independence of
the smaller states of Europe. Through the Mon-
roe doctrine we hope to be able to safeguard
the right of independence and secure like permanence for
the lesser among the New World nations.

This doctrine has nothing to do with the com-
cercial relations of any American power, save
that it in truth allows each of them to form
such as it desires. In other words, it is really a
safeguard of the independence of the
American states. We do not ask under this doc-
trine for any exclusive commercial dealings with
any other American state. We do not guaran-
tee any state against punishment if it miscon-
ducts itself, provided that punishment does not
take the form of the acquisition of territory by
any non-American power.

Our attitude by itself is a sufficient guaranty of
our own good faith. We have not the slightest
desire to secure any territory at the expense of
any of our neighbors. We wish to work with
them hand in hand, so that all of us may be
uplifted together, and we rejoice over the good
fortunes of any of them, we gladly hail their mat-
terial prosperity and political stability, and are
concerned and alarmed if any of them fall into
industrial or political chaos. We do not wish to
see any Old World military power grow up on
this continent, or to be compelled to become a
military power ourselves. The peoples of the
Americas can prosper best if left to work out
their own salvation in their own way.

The work of upbuilding the navy must be
steadily continued. No one point of our policy,
foreign or domestic, is more important than this
to the honor and material welfare, and above all
to the peace, of our nation in the future. Wheth-
er we are at war or at peace we must recog-
nize that we have international duties no less
than international rights. Even if our flag were
hoisted in the Philippines and Porto Rico, even
if we decided not to build the isthmian canal,
we should need a thoroughly trained navy of ade-
quate size, or else be prepared definitely and for
all time to abandon the idea that our nation
is among those whose sons go down to the sea
in ships. Unless our commerce is always to be
carried in foreign bottoms, we must have war
craft to protect it.

Inasmuch, however, as the American people
have no thought of abandoning the path upon
which they have entered, and especially in view
of the fact that the building of the isthmian
canal is fast becoming one of the matters in
which the whole people are united in demanding, it is
imperative that our navy should be put and
kept in the highest state of efficiency, and should
be so built as to meet our growing needs. So far
from being in any way a provocation to war, an
adequate and highly trained navy is the best
guaranty against war, the cheapest and most ef-
fective peace insurance. The cost of building and
maintaining such a navy is equal to the lightest premium for insuring peace which this
nation can possibly pay.

Probably no other great nation in the world
is so anxious for peace as we are. There is not
a single civilized power which has anything
whatever to fear from aggressiveness on our part.
All we want is peace; and toward this end we
wish to be able to secure the same respect for
our rights from others which we are eager and
anxious to extend to their rights in return, to
insure fair treatment to us commercially, and to
guarantee the safety of the American people.

Our people intend to abide by the Monroe doc-
trine and to insist upon it as the one sure means
of securing the peace of the Western Hemisphere.
The navy offers us the only means of making
our insistence upon the Monroe doctrine any-
thing but a subject of derision to whatever na-
tion chooses to disregard it. We desire the peace
which comes as of right to the just man armed;
not the peace granted on terms of ignominy to
the craven and the weakling.

It is not possible to impose a navy after war
breaks out, and it is clear that the ships must be built and the men trained long in advance. Some auxiliary ves-
sels can be turned into makeshifts which will do
in default of any better for the minor work, and
there will be a proportion of men who can be mixed with the
highly trained, shortcomings being made
good by the skill of their fellows; but the effi-
cient fighting force of the navy when pitted
against an equal opponent will be found to be
exclusively in the war-ships that have been regu-
larly built and in the officers and men who
through years of faithful performance of sea
duty have been trained to handle their formidable
but complex and delicate weapons with the
highest efficiency. In the late war with Spain
the ships that dealt the decisive blows at Manila
and Santiago had been launched from two to
fourteen years, and they were able to do as they
did because the men in the conning towers, the
gun turrets, and the engine-rooms had through
long years of practise at sea learned how to do
their duty.

Our present navy was begun in 1882. At that
period our navy consisted of a collection of anti-
quated wooden ships of the galleys of Alcibiades and Hamilcar—certainly as the
ships of Tromp and Blake. Nor at that time
did we have men henceforth recognized as
war. Under the wise legislation of the Congress
and the successful administration of a succession
of patriotic Secretaries of the Navy, belonging
to both political parties, the work of upbuilding
the navy went on, and ships equal to any in
the world of their kind were continually added;
and what was even more important, these ships
were exercised at sea singly and in squadrons
until the men aboard them were able to get the
best possible service out of them. The result
was seen in the short war with Spain, which
was decided with such rapidity because of the
infinitely greater preparedness of our navy than
of the Spanish navy.

While awarding the fullest honor to the men
who actually commanded and manned the ships
which destroyed the Spanish sea forces in the
Philippines and in Cuba, we must not forget that
an equal meed of praise belongs to those without
whom neither blade nor gun was struck. The
congressmen who voted years in advance the
money to lay down the ships, to build the guns,
to buy the armor-plate; the department officials
and the business men and wage-workers who furnished what the Congress had authorized; the Secretaries of the Navy who asked for and expended vast sums; and finally the officers who, in fair weather and foul, on actual sea service, trained and disciplined the crews of the ships when there was no war in sight—all are entitled to a portion of the glory of Manila and Santiago, and the respect accorded by every true American to those who wrought such signal triumph for our country. It was forethought and preparation which secured us the overwhelming triumph of 1898. If we fail to show forethought and preparation now, there may come a time when disaster will befal us instead of triumph; and should this time come, the fault will rest primarily, not upon those whom the accident of events puts in supreme command at the moment, but upon those who have failed to prepare in advance.

There should be no cessation in the work of completing our navy. So far ingenuity has been wholly unable to devise a substitute for the great war craft whose hammering guns beat out the music of triumphant ships. It is unwise and unwise to provide this year for several additional battle-ships and heavy armored cruisers, with auxiliary and lighter craft in proportion; for they provide a cash flow and a better record number and character I refer you to the report of the Secretary of the Navy. But there is something we need even more than additional ships, and this is additional officers and men. The provision of battleship and cruiser forces would then lay them up, with the expectation of leaving them unmanned until they are needed in actual war, would be worse than folly; it would be a crime against the nation.

To send any war-ship against a competent enemy unless those aboard it have been trained by years of actual sea service, including incessant gunnery practise, would be to invite not merely disaster, but the bitterest shame and humiliation. Four thousand additional seamen and 1,000 additional marines should be provided; and an increase in the officers should be provided by making a large addition to the classes at Annapolis. There is one small matter which should be mentioned in connection with Annapolis. The precious and unmeaning title of "naval cadet" should be abolished; the title of "midshipman," full of historic association, should be restored.

But the time of peace a war-ship should be used until it wears out, for only so can it be kept fit to respond to any emergency. The officers and men alike should be kept as much as possible on blue water, for it is there only they can learn their duties as they should be learned. The big vessels should be maneuvered in squadrons containing not merely battle-ships, but the necessary proportion of cruisers and scouts. The torpedo-boats should be handled by the younger officers in such manner as will best fit the latter to take responsibility and meet the emergencies of actual warfare.

Every detail ashore which can be performed by a civilian should be so performed, the officer being kept for his special duty in the sea service. Above all, gunnery practise should be unremitting. It is important to have our navy of adequate size, but it is even more important that ship for ship it should equal in efficiency any in the world. This is possible only with highly drilled crews and officers, and this in turn imperatively demands continuous and progressive instruction in target practise, ship handling, squadron tactics, and general discipline. Our ships must be assembled in squadrons actively cruising away from harbors and never long at anchor. The resulting wear upon engines and hulls must be ended; a battle-ship worn out in long training of officers and men is well paid for by the results, while, on the other hand, no matter in how excellent condition, it is entirely useless if the glory of Manila and Santiago is not maintained.

We now have 17 battle-ships appropriated for, of which 9 are completed and have been commissioned for actual service. The remaining 8 will be ready in from two to four years, but, it will take at least that time to recruit and train the men to fight them. It is of vast concern that we have trained crews ready for the vessels by the time they are commissioned. Good ships and good guns are simply good weapons, and the best weapons are useless save in the hands of men who know how to fight with them. The men must be trained and drilled under a thorough and well-planned system of progressive instruction, while the recruiting must be carried on with still greater vigor. Every effort must be made to exalt the real function of the officer—the command of of the Naval Academy should be assigned to the combatant branches, the line and marines.

Many of the essentials of success are already recognized by the General Board, and as the central office of a growing staff, is moving steadily toward a proper war efficiency and a proper efficiency of the whole navy, under the Secretary. This General Board, reviewing the condition of a general staff, is providing for the official and then the general recognition of our altered conditions as a nation and of the true meaning of a great war fleet, which meaning is, first, the best men, and, second, the best ships.

The naval militia forces are State organizations, and are trained for coast service, and in event of war they will constitute the inner line of defense. They should receive hearty encouragement from the General Government.

But in addition we should at once provide for a national navy reserve, organized and trained under the direction of the Navy Department, and subject to the call of the Chief Executive whenever war becomes imminent. It should be a real auxiliary of the main navy, the seaplaning peace establishment, and offer material to be drawn on at once for manning our ships in time of war. It should be composed of graduates of the Naval Academy, graduates of the naval militia, officers and crews of coast-line steamers, longshore schooners, fishing vessels, and steam-yachts, together with the coast population about such centers as life-saving stations and lighthouses.

The American people must either build and maintain an adequate navy or else make up their minds definitely to accept a secondary position in international affairs, not merely in political, but in commercial matters. It has been well said that there is no surer way of courting national disaster than to be "opulent, aggressive, and unarmed."

It is not necessary to increase our army beyond its present size at this time. But it is necessary to keep it at the highest point of efficiency. The individual units who as officers and enlisted men compose this army are, we have good reason to believe, at least as efficient as those of any other army in the entire world. It is a further duty of the Government to see that their training is of a kind to insure the highest possible expression of power to these units when acting in combination.

The conditions of modern war are such as to
Our army is so small and so much scattered that it is very difficult to maintain a capacity to carry on a great war (as well as the lower officers and the enlisted men) a chance to practise maneuvers in mass and on a comparatively large scale. In time of need no amount of individual efficiency would avail against the paralysis which would follow inability to work as a coherent whole, under skilful and daring leadership. The Congress should provide means whereby it will be possible to have field exercises by at least a division of regulars, and if possible also a division of National Guardsmen once a year. These exercises might take the form of field maneuvers; or, if on the Gulf coast or the Pacific or Atlantic seaboard, or in the region of the Great Lakes, the army corps when assembled could be marched from some inland point to some point on the water, there embarked, disembarked after a couple of days’ journey at some other point, and again marched inland. Only by actual handling and providing for men in masses while they are marching, camping, embarking, and disembarking, will it be possible to train the higher officers to perform their duties well and smoothly.

A great debt is owed to the public to the men of the army and navy. They should be so treated as to enable them to reach the highest point of efficiency, so that they may be able to render instant response to any demand made upon them to sustain the interests of the nation and the honor of the flag. The individual American enlisted man is probably on the whole a more formidable fighting man than the regular of any other army. Every consideration should be shown him, and in return the highest standard of usefulness should be exacted from him. It is well worth while for the Congress to consider whether the pay of enlisted men upon second and subsequent enlistments should not be increased to correspond with the increased value of the veteran soldier.

Much good has already come from the act reorganizing the army, passed early in the present year. The three prime reforms, all of them of literally inestimable value, have been the substitution of four-year details from the line for permanent appoints in the so-called staff divisions; second, the establishment of a corps of artillery with a chief at the third, the establishment of a maximum and minimum limit for the army. It would be difficult to overestimate the improvements in the efficiency of our army which these three reforms are making, and have in part already effected.

The reorganization provided for by the act has been substantially accomplished. The improved conditions in the Philippines have enabled the War Department materially to reduce the military charge upon our revenue and to arrange the number of soldiers so as to bring this number much nearer to the minimum than to the maximum limit established by law. There is, however, need of supplementary legislation. Thorough military education must be provided, and in addition to the regulars the advantages of this education should be given to the officers of the National Guard and others in civil life who desire intelligently to fit themselves for possible military duty. The officers should be given the chance to perfect themselves by study in the higher branches of this art. At West Point the education should be of the kind most apt to turn out men who are good in actual field service; too much stress should not be laid on mathematics, nor should proficiency therein be held to establish the right of entry to a corps.
d'élite. The typical American officer of the best kind need not be a good mathematician; but he must be able to master himself, to control others, and to show boldness and fertility of resource in every emergency.

Action should be taken in reference to the militia and to the raising of volunteer forces. Our militia law is obsolete and worthless. The organization and armament of the National Guard of the several States, which are treated as militia in the appropriations by the Congress, should be made identical with those provided for the regular forces. The obligations and duties of the guard in time of war should be carefully defined, and a system established by law under which the method of procedure of raising volunteer forces should be prescribed in advance. It is utterly impossible in the excitement and haste of impending war to do this satisfactorily if the arrangements have not been made long beforehand. Provision should be made for utilizing the first volunteer organizations called out the training of those citizens who have already had experience under arms, and especially for the selection in advance of the qualified men who may be raised; for careful selection of the kind necessary is impossible after the outbreak of war.

That the army is not at all a mere instrument of destruction has been shown during the last three years. In the Philippines, Cuba, and Porto Rico it has proved itself a great constructive force, a most potent implement for the upbuilding of peaceful civilization.

No other citizens deserve so well of the republic as the veterans, the survivors of those who saved the Union. They did the one deed which if left undone would have meant that all else in our history went for nothing. But for their steadfast prowess in the greatest crisis of our history, all our annals would be meaningless, and our great experiment in popular freedom and self-government a gloomy failure. Moreover, they not only left us a united nation, but they left us also as a heritage the memory of the military service in which they are kept united. We are now indeed one nation, one in fact as well as in name; we are united in our devotion to the flag which is the symbol of national existence and unity, and we are as true to the Constitution as the Union is perfect, until the day when one of us may die for the Union. The men who in the last three years have done so well in the East and the West Indies and on the mainland of Asia have shown that this remembrance is not lost. In any serious crisis the United States must rely for the great mass of its fighting men upon the volunteer soldier who do not make a permanent profession of the military career; and whenever such a crisis arises the deathless memories of the civil war will give to Americans the lift of lofty purpose which comes to those whose fathers have stood valiantly in the forefront of the battle.

The merit system of making appointments is in its essence as democratic and American as the common-school system itself. It simply means that in clerical and other positions where the duties are entirely non-political, all applicants should have a fair field and no favor, each standing on his merits as he is able to show them by public examination, which is the only way by which it is possible to test unpremeditated judgment. The examinations offer the only available means in many cases for applying this system. In other cases, as where laborers are employed, a system of registration undoubtedly can be widely extended.

There are, of course, places where the written competitive examination can not be applied, and others where it offers no means an ideal solution, but where under existing political conditions it is, though an imperfect means, yet the best present means of getting satisfactory results.

Wherever the conditions have permitted the application of the merit system in its fullest and widest sense, the gain to the Government has been immense. The navy-yards and postal service illustrate, probably better than any other branches of the Government, the great gain in economy, efficiency, and honesty due to the enforcement of this principle.

I recommend the passage of a law which will extend the classified service to the District of Columbia, or will at least enable the President to extend it. In my judgment all laws providing for the temporary employment of clerks should hereafter contain a provision that they be selected under the civil-service law.

It is important to have this system obtain at home, but it is even more important to have it applied rigidly in our Insular possessions. Not long ago an office should have been raised in Porto Rico with any regard to the man's partizan affiliations or services, with any regard to the political, social, or personal influence which he may have at his command; in short, heed should be paid to absolutely nothing save the man's own character and capacity and the needs of the service.

The administration of these islands should be as wholly free from the suspicion of partizan politics as the administration of the army and navy. All that we ask from the public servant in the Philippines or Porto Rico is that he reflect honor on his country by the way in which he makes that country's rule a benefit to the people who have come under it. This is all that we should ask, and we can not afford to be content with less.

The merit system is simply one method of securing honest and efficient administration of the Government, by which the justification of any type of government lies in its proving itself both honest and efficient.

The consular service is now organized under the provisions of a law, under which the posts are entirely inadequate to existing conditions. The interest shown by so many commercial bodies throughout the country in the reorganization of the service is heartening and demands consideration. Several bills providing for a new consular service have in recent years been submitted to the Congress. They are based upon the just principle that appointments to the service should be made only after a practical test of the applicant's fitness, that promotions should be governed by trustworthiness, adaptability, and zeal in the performance of duty, and that the tenure of office should be unaffected by partizan considerations.

The guardianship and fostering of our rapidly expanding foreign commerce, the protection of American citizens resorting to foreign countries in lawful pursuit of their affairs, and the maintenance of the dignity of the nation abroad, combine to make it essential that our consuls should be men of character, knowledge, and enterprise. It is true that the service is now, in the main, efficient, but a standard of excellence can not be permanently maintained. I refer to this matter in the bills heretofore submitted to the Congress on this subject are enacted into law.

In my judgment the time has arrived when
we should definitely make up our minds to recognize the Indian as an individual and not as a member of a tribe. The general allotment act is a mighty pulverizing engine to break up the tribal mass. It acts directly upon the family and the individual. Under its provisions some 60,000 Indians have already become citizens of the United States. We should now break up the tribal funds, doing for them what allotment does for the tribal lands; that is, they should be divided into individual holdings. There will be a transition period during which the funds will in many cases have to be held in trust. This is the case also with the lands. A stop should be put upon the indiscriminate permission to Indians to lease their allotments. The effort should be steadily to make the Indian work like any other man on his own ground. The marriage laws of the Indians should be made the same as those of the whites.

In the schools the education should be elementary. The need of higher education among the Indians is very, very limited. On the reservations care should be taken to try to suit the teaching to the needs of the people. It is not in attempting to induce agriculture in a country suited only for cattle-raising, where the Indian should be made a stock-grower. The ration system merely the reservation system, is highly detrimental to the Indians. It promotes beggary, perpetuates pauperism, and sthices industry. It is an effectual barrier to progress. To a greater or less degree as long as tribes are held on reservations and have everything in common. The Indian should be treated as an individual—like the white man. During the change of treatment inevitable hardships will occur; every effort should be made to minimize these hardships; but we should not because of them hesitate to make the change. There should be a continuous reduction in the number of agencies.

In dealing with the aboriginal races few things are more important than to preserve them from the terrible physical and moral degradation resulting from the liquor traffic. We are doing all we can to save our own Indian tribes from this evil. Wherever by international agreement this same end can be attained by other races where we do not possess exclusive control, every effort should be made to bring it about.

I bespeak the most cordial support from the Congress and the people for the St. Louis Exposition to Commemorate the One Hundredth Anniversary of the Louisiana Purchase. This purchase was the greatest instance of expansion in our history. It definitely decided that we were to become a great continental republic, by far the foremost power in the Western Hemisphere. It is one of three or four great landmarks in our history—the great turning points in our development. It is uniquely fitting that all our people should join with heartiest good-will in commemorating it, and the citizens of St. Louis, of Missouri, of all the adjacent region, are entitled to every aid in making the celebration a noteworthy event in our annals. We earnestly hope that foreign nations will appreciate the deep interest our country takes in this exposition, and our view of its importance from every standpoint, and that they will participate in securing its success. The National Government should be represented by a full and complete set of exhibits. Treasure, art, and industry, with great energy and civic spirit, are carrying on an exposition which will continue throughout most of the present session of the Congress. I heartily commend this exposition and ask all men and women to come. It deserves all the encouragement that can be given it. The managers of the Charleston Exposition have requested the Cabinet officers to place thereat the Government exhibits which have been at Buffalo, promising to pay the necessary expenses. I have taken the responsibility of directing that this be done, for I feel that it is due to Charleston to help her in her praiseworthy effort. In my opinion the management should not be required to pay all these expenses. I earnestly recommend that the Congress appropriate at once the small sum necessary for this purpose.

The Pan-American Exposition at Buffalo has just closed. Both from the industrial and the artistic standpoint this exposition has been in a high degree creditable and useful, not merely to Buffalo but to the United States. The terrible tragedy of the President's assassination interfered materially with its being a financial success. The exposition was peculiarly in harmony with the trend of our public policy, because it represented an effort to bring into closer touch all the people and to give them an increasing sense of unity. Such an effort was a genuine service to the entire American public.

The advancement of the highest interests of national science and learning and the custody of objects of art and of the valuable results of scientific expeditions conducted by the United States have been greater or less. The Smithsonian Institution. In furtherance of its declared purpose—for the "increase and diffusion of knowledge among men"—the Congress has from time to time given it other important functions. Such trusts have been executed by the institution with notable fidelity. There should be no halt in the work of the institution, in accordance with the plans which its secretary has presented, for the preservation of the vanishing races of great North American animals in the National Zoological Park. The urgent needs of the National Museum are recomended to the favorable consideration of the Congress.

Perhaps the most characteristic educational movement of the past fifty years is that which has created the modern public library and developed it into broad and active service. There are now over 5,000 public libraries in the United States, the product of this period. In addition to accumulating materials there are many libraries, by organization, by improvement in method, and by cooperation, to give greater efficiency to the material they hold, to make it more widely useful, and by avoidance of unnecessary duplication in process to reduce the cost of its administration.

In these efforts they naturally look for assistance to the Federal library, which, though still the Library of Congress and so entitled, is the one national library of the United States. Already the largest single collection of books on the Western Hemisphere, and certain to increase more rapidly than any other through purchase, exchange, and the operation of the copyright law, this library has a unique opportunity to render to the libraries of this country—American scholarship—service of the highest importance. It is housed in a building which is the largest and most magnificent yet erected for library uses. Resources are now being provided with the collection properly, equip it with the apparatus and service necessary to its effective use, render its bibliographic work widely avail-
able, and enable it to become, not merely a center of research, but the chief factor in great cooperatives for the diffusion of knowledge and the advancement of learning.

For the sake of good administration, sound economy, and the advancement of science, the Census Office as now constituted should be made a permanent Government bureau. This would insure better, cheaper, and more satisfactory work, in the interest not only of our business but of statistic, economic, and social science.

The remarkable growth of the postal service is shown in the fact that its revenues have doubled and its expenditures have nearly doubled within twelve years. Its progressive development compels constantly increasing outlay, but in this period of business energy and prosperity its receipts grow so much faster than its expenses that the annual deficit has been steadily reduced from $11,411,779 in 1897 to $3,923,727 in 1901. Among recent postal advances the success of rural free delivery wherever established has been so marked, and actual experience has made its benefits so plain, that the demand for its extension is general and urgent.

It is just that the great agricultural populations should share in the improvement of the service. The number of rural routes now in operation is 6,009, practically all established within three years, and there are 6,000 applications awaiting action. It is expected that the number in operation at the close of the current fiscal year will reach 8,000. The mail will then be daily carried to the doors of 5,700,000 of our people who have heretofore been dependent upon distant post offices, and one-third of all that portion of the country which is adapted to it will be covered by this kind of service.

The full measure of postal progress which might be realized has long been hampered and obstructed by the heavy burden imposed on the Government through the entrenched and well-understood abuses which have grown up in connection with second-class mail-matter. The extent of this burden appears when it is stated that while the second-class matter makes nearly three-fourths of the weight paid for the last fiscal year only $4,294,445 of the aggregate postal revenue of $111,631,193. If the pound-rate of postage, which produces the large loss thus estimated, were to be fixed with the purpose of encouraging the dissemination of public information, were limited to the legitimate newspapers and periodicals actually contemplated by the law, no just exception could be taken. That expense would be the recognized and accepted cost of a liberal public policy deliberately adopted for a justifiable end. But much of the matter which enjoys the privileged rate is wholly outside of the intent of the law, and has secured admission only through an evasion of its requirements or through lax construction. The proportion of such wrongly included matter is estimated by postal experts to be one-half of the whole volume of second-class mail. If it be only one-third or one-quarter, the magnitude of the burden is apparent. The Post-Office Department has now undertaken to remove the abuses so far as is possible by a stricter application of the law; and it should be sustained in its effort.

Owing to the rapid growth of our power and our interests on the Pacific, whatever happens in China must be of the keenest national concern to us. Saving general terms of the settlement of the questions growing out of the antiforeign risings in China of 1900, having been formulated in a joint note addressed to China by the representatives of the injured powers in December last, were promptly accepted by the Chinese plenipotentiaries. After protracted conferences the plenipotentiaries of the several powers were able to sign a final protocol with the Chinese plenipotentiaries on the 7th of September, setting forth the measures taken by China in compliance with the demands of the joint note, and expressing their satisfaction therewith. It will be laid before the Congress with a report of the plenipotentiary on behalf of the United States, Mr. William Woodville Rockhill, to whom high praise is due for the tact, good judgment, and energy he has displayed in performing an exceptionally difficult and delicate task.

The agreement reached dispose in a manner satisfactory to the powers of the various grounds of complaint, and will contribute materially to a better future relations between China and the powers. Reparation has been made by China for the murder of foreigners during the uprising, and punishment has been inflicted on the officials, however high in rank, recognized as responsible for or having participated in the outbreak. Official examinations have been forbidden for a period of five years. By them all powers have been murdered or cruelly treated, and edicts have been issued making all officials directly responsible for the future safety of foreigners and for the suppression of violence against them.

Provisions have been made for insuring the future safety of the foreign representatives in Pekin by setting up an exclusive security a'quarter of the city which the powers can make defensible and in which they can if necessary maintain permanent military guards; by dismantling the military works between the capital and the sea; and by allowing the temporary maintenance of foreign military posts along this line. An edict has been issued by the Emperor of China prohibiting for two years the importation of arms and ammunition into China. China has agreed to pay adequate indemnities to the states, societies, and individuals for the losses sustained by them for the expenses of the military expeditions sent by the various powers to protect life and restore order.

Under the provisions of the joint note of December, 1900, by the Congress of last year the treaties of commerce and navigation and to take such others steps for the purpose of facilitating foreign trade as the foreign powers may decide to be needed.

The Chinese Government has agreed to participate financially in the work of bettering the water approaches to Shanghai and to Tientsin, the centers of foreign trade in central and northern China, and an international conservancy board, in which the Chinese Government is largely represented, has been provided for the improvement of the Shanghai river and the control of its navigation. In the same line of commercial advantages a revision of the present tariff on imports has been assented to for the purpose of substituting specific for ad valorem duties, and an expert has been sent abroad on the part of the United States to assist in this work. A list of articles to remain free of duty, including four, cereal, and silver, is available, and bullion, has also been agreed upon in the settlement.

During these troubles our Government has unswervingly advocated moderation, and has materially aided in bringing about an adjustment which tends to enhance the welfare of China.
and to lead to a more beneficial intercourse be-
tween the empire and the modern world; while
in the period of the mad massacre we did
our full share in safeguarding life and prop-
erty, restoring order, and vindicating the na-
tional interest and honor. It behooves us to con-
tinue in these paths, doing what lies in our
to power to foster feelings of good-will, and leav-
ing no effort untried to work out the great policy
of full and fair intercourse between China and the
nations, on a footing of equal rights and
advantages to all. We advocate the "open door"
with all that it implies; not merely the procure-
ment of enlarged commercial opportunities on the
coasts, but access to the interior by the water-
ways with which China has been so extraordi-
narily favored. Only by bringing the people of
China into peaceful and friendly community of
trade with all the peoples of the earth can the
work now auspiciously begun be carried to frui-
tion. In the attainment of this purpose we neces-
sarily claim parity of treatment, under the con-
ventions, throughout the empire, promising advan-
tage to the great family of American common-
wealths, as well in their relations among them-
se1ves as in their domestic advancement and in
their intercourse with the outside world, with
this discrimination among their citizens with those of all other powers.

We view with lively interest and keen hopes of
beneficial results the proceedings of the Pan-
American Congress, recently held at Havana, Cuba,
and now sitting at the Mexican capital. The delegates of the United States are under
the most liberal instructions to cooperate with their colleagues in all matters promising advan-
tage to the great family of American common-
wealths, as well in their relations among them-
se1ves as in their domestic advancement and in
their intercourse with the outside world, with
this discrimination among their citizens with those of all other powers.

And I may well ask, if it be true that we have "no right but what we have earned to protect our
people," whether it be also true that we have no right, and no need, to protect our government.

The Filipino Insurrection. Dec. 17 the House of Representatives took up the consideration of a
measure, "temporarily to provide revenue for the Philippine Islands, and other purposes," and
two days were allowed, under special order, for
debate. Mr. Payne, of New York, who was in
charge of the measure, made a fine speech in favor of
merit in its favor. Among other things, he said:
"It becomes necessary at this time because of
the recent decision of the Supreme Court of the
United States holding that the Philippine Islands not
being foreign territory, and the existing law for
the collection of tariff duties including only those
articles imported from foreign countries, that it
does not apply to imports from the Philippine Islands,
and that no collection of duties upon such imports
can be made.

"But the bill goes further than that. It gives
the force of an act of Congress to the tariff act
already enacted by the Philippine Commission.
That act depends for its force upon the war
power of the Government and also upon the legis-
lation of Congress on what is known as the
Spooner amendments, giving the Executive au-
thority to legislate, to execute the laws, and to
exercise judicial functions in the Philippine Is-
lands. The war of our forefathers was fought
within ten days of the cession of these islands by Spain—on Feb. 15—a conspiracy was formed to
overthrow the power of the United States—in
the language of the times, to exterminate our
army, and after they were out of the way to
massacre the inhabitants of Manila who were
not Filipinos. This made the Philippine Islands hostile territory. They were under the laws of nations,
and under the repeated decisions of the Supreme
Court, gave the war power to the Executive of
this country to govern those islands with a mili-
tary government, or, at large discretion to that
by appointing persons from civilian life to
execute the offices.

"The organized opposition to the Government
of the United States was overthrown in March,
1900, and since then the war on the part of the
Filipinos has been a guerrilla warfare—sporadic,
spasmodic, and at times carried on with great
 cruelty and without any regard on the part of
some of these men to the rules of civilized war-
fare. As the insurgent forces were dispersed the
President of the United States thought it best
to send out to these islands the Philippine Com-
mission, known as the Taft Commission, which
was appointed March 16, 1900, and which reached
the islands about Sept. 1 of that year. These
commissioners were instructed generally by the
President.

"Those instructions are varied in their char-
acter. They provided for separating the judi-
cial, the executive, and the legislative power;
for the establishment of government where it
could be done in the different cities and towns
and provinces of the island. They provided gen-
erally for giving to the Filipinos a good and,
for the time being, a stable and honest and
 equitable government throughout all the islands,
and for levying such taxes and imports as, in the
judgment of the commission, should be right and
necessary.

"Afterward, on March 2, 1901, the Spooner
amendments were passed, amplifying the power
of the President of the United States, enforcing
the authority which the President already had
under the military power of the Government by
the legislative arm of the Government, and legis-
lating to him from the full authority, which he already
perhaps possessed under the military power.
Under this power the Taft Commission was au-
thorized to impose taxes. We found when we
went there a churn in law in force under the old
Spanish régime.

"Some of the duties imposed by that law were
very high, especially the duties upon the necessaries of life. The commission went to work almost immediately to gather information, to amend the old Spanish tariff code, and to make it more suitable to American ideas, American possession, and American government.

"A great deal of care was exercised by this commission in fixing these rates. In the first place, they made what they called a tentative bill, which was published and widely distributed in the Philippine Islands and criticisms invited. Then this bill was amended, due regard being given to the criticisms which were offered. Then the bill came here and was published by the War Department in several hundred trade journals throughout the United States, criticisms being invited and received. The War Department recommended some amendments, and sent all these criticisms and all the other information obtained to the commission. After the bill had been considered, back and forth, with such light as was thrown upon it in this public way, for more than a year, the commission finally enacted their tariff.

"Now, this tariff is not only a duty upon imports into the Philippine Islands, but embraces also a small duty upon some exports from the Philippine Islands, such as hemp, sugar, tobacco, and so forth—a continuation of the Spanish method of taxation. The entire sum realized from these export duties since the occupation of the islands by the United States is $1,700,000, while the total tariff receipts for the whole period of occupation does not exceed $30,000 last amounting to $15,625,000. So that the export tax was not comparatively large, and the export tax is nearly the only direct tax that is collected in the Philippine Islands.

"Mr. Chairman, in addition to this we found that by the decision of the court and the ruling of the Treasury the ports of Porto Rico as well as the ports of the Philippine Islands and the ports of the United States were in such relation that the coastwise laws applied, and that under the law no vessel carrying a foreign flag could bring goods from the Philippines to any port in the United States. We take care of that in this bill; but we hope the time will soon come, and we are assured that it will soon come, when American citizens will furnish American vessels, to be sailed under the American flag, fully equal to the demand, to carry all the commerce coming from the Philippine Islands to ports of the United States. When that time comes, this side of the House will see to it that these coastwise laws are extended to the ports of the Philippine Islands, as well as to all other ports that are under the flag of the United States.

"Mr. Chairman, in addition to this, in the last section of the bill we have endeavored to apply the drawback laws, providing for drawbacks in duties and in internal-revenue collections, and also to apply the exemption laws for goods manufactured in bonded warehouses, to the shipment of goods from United States ports to the ports of the Philippine Islands.

"Then we have provided, as in the Porto Rican bill, that all these taxes collected in the Philippine Islands, and all duties collected in the United States upon goods brought from the Philippine Islands into the United States shall not be covered into the general fund of the Treasury, but be paid into the treasury of the Philippine Islands for the use and benefit of the Philippine Islands."

Mr. Payne did not accept the commission tariff as an ideal one; but he defended it as a good working measure, to meet an emergency, and he went on to describe in detail the work carried on and to be carried on under American rule in the Philippines, for which ample revenue is needed.

"Mr. Swanson, of Virginia, led the discussion in opposition to the measure. He said:

"Mr. Chairman, the Republican party of this country has definitely determined to enter into a system of colonial conquest and government. When this question was last up for debate in this House we of the opposition contended that such a policy was not only unwise and dangerous to the continued liberty and prosperity of our people, but also not permissible under the plain provisions of our Federal Constitution. Recently the Supreme Court of the United States, by a decision reversing former decisions, has seen proper to amend the Federal Constitution and declare that Congress can govern acquired territory outside the prohibitions and requirements of the Constitution. It has specifically decided that that clause in the Constitution which declares that "all duties, imposts, and excises shall be uniform throughout the United States" applies to the States only and not to the Territories and other possessions.

"By this decision it declares that Congress has power to impose duties upon goods coming from the Territories into the States and also from the States into the Territories. It confers upon Congress absolute power of taxation in the Territories, unrestrained by any provision in the Federal Constitution. By a recent decision the court has declared that the Philippine Islands and other possessions are not foreign but domestic territory, and, as the Dingley bill, by its terms, limits its collection of duties to importations from foreign countries, it does not apply to the Philippines; hence no duty can be collected on importations from those islands until Congress shall so direct. Ever since we have had control of these islands, until this decision, the duties imposed by the Dingley bill have been collected on all goods brought into this country from them. This bill proposes to continue the rates of the Dingley bill upon all importations into this country from the Philippine Islands.

"In this respect it proposes to treat those islands and the inhabitants as absolutely as for- eigners. Their commerce, their trade, and their importations are to be subjected to the same heavy exactions, the same rigorous restrictions, that are applied to foreign nations. This bill provides that every article of this bill fixes absolutely all customs duties to be collected on importations into the Philippines, and, in addition, an export duty on certain goods when shipped from there. This feature of the bill treats the inhabitants of the Philippine Islands as subjects of this country, to be governed absolutely by the will of Congress. Thus, by this bill, when concessions and trade benefits are needed by the unfortunate inhabitants of the Philippine Islands, they are treated as strangers and foreigners, but when exactions and taxation are to be imposed, they are treated as subjects. This irreconcilable, dual position of subject and stranger is created by this bill and illustrates the policy of the Republican party in the formulation of its colonial system. The principle on which such a bill is based is not only repugnant to every principle of justice and right and antagonistic to all our traditions and institutions.

"By this bill Congress assumes the right and does exercise the power to fix the conditions upon which the goods of the Philippines can be sold in the markets of the United
States and also the rates and conditions upon which our goods can be sold in the markets of those islands. In other words, we practically fix the price at which they must sell their goods to us, and to the extent that they do this, we must purchase ours. This is precisely the same power that was claimed by the British Parliament when we were colonies. The British Parliament then contended that the power of Parliament was absolute in the American colonies and that Parliament had the right to impose taxes here and to fix the duty on imports from the colonies into Great Britain and also the duty on imports from Great Britain into the colonies.

"Our fathers denounced this assumption of power as tyranny and despotism. When it was sought to be exercised they rebelled, separated themselves from Great Britain, and established this Union. Our fathers contended that the vast power to control absolutely the trade and commerce, all the buying and selling of the commodities of our nation by another, is such a dangerous power, so liable to abuse, that no just nation would ever try to exercise it, and that it should never be conceded. Yet by this bill this right will be sanctioned in the most formal, precisely the same power claimed and sought to be exercised against us by the British Parliament when we were colonies. Great Britain could not have succeeded in the Revolutionary War without destroying British institutions and ultimately the liberty and freedom of her people. We can not enact this bill without destroying our institutions without abandoning all our glorious traditions and perverting our principles of justice and liberty, which have been the foundations of our governmental structure."

Mr. Swanson, after considering the provisions of the bill in detail, denounced its injustice and harshness as compared to the policy of reciprocity proposed for foreign countries.

"The President in his annual message says that we are under moral obligations to give Cuban imports into the United States a substantial reduction from present tariff duties. The Secretary of War is in accord with this for rates of the President. The two chief products of Cuba, like those of the Philippines, are sugar and tobacco. This administration favors a great reduction from the duties on sugar when imported from Cuba, and yet sustains this bill, which collects the entire Dingley rates on sugar and tobacco imported from the Philippines, and we are told that the American people will not sanction this. Our obligations to Cuba must have been fully and completely discharged when they have established a free and independent government and we have withdrawn from the island. This will soon happen. They owe us a boundless debt of gratitude. When they were oppressed by Spain and their cause was hopeless, we espoused their cause, drove their oppressors from the island, and gave to them freedom and independence.

"At much expense we have kept peace and order there and administered the government pending the formation by them of a safe and stable government. No other nation has ever bestowed upon another more generous, substantial, and disinterested favors than we have bestowed upon Cuba. With the Filipinos the case is reversed. The Filipinos had overthrown Spanish authority, expelled the Spaniards, and anything else. They could have driven their oppressors from the islands without our aid. They were the valuable allies in a war that we had undertaken for the liberation of Cuba. They desired to establish an independent government under our guidance, which would have made to us generous trade concessions. We denied this request, and by war and conquest extended our dominion over them. We now hold them as colonies and as a part and parcel of this country. We have granted to Cuba, and she has decided to become, a state free and independent of us.

"I can see no moral obligations on our part to make any concessions to Cuba except such as our own interest may demand. If reductions in tariff duties are to be made for the introduction of sugar and tobacco into our market, the claims of the Philippines are vastly superior to those of Cuba. The profits to be derived from the sale of these two products in the markets of this country should certainly go, if possible, to our own people instead of to foreigners. I can not understand the wisdom of a policy that urges such generous concessions to Cuba and imposes such heavy excursions and restricitions upon the Philippines. So long as the Philippine Islands are a part of this country, justice and wisdom both demand that their sugar and tobacco interests be developed rather than the sugar and tobacco interests of Cuba.

"But, Mr. Chairman, the hostility of the Republican party and of those in power to the Philippine Islands is further exemplified, and in a manner that can admit of no excuse, no defense. As I have previously said, this bill imposes on the sugar and tobacco importer of the Philippines the high rates of the Dingley bill. Our Government has already signed treaties with Great Britain for the Barbados, for British Guiana, for Jamaica, and for Bermuda, which have been sent to the Senate and are being pressed by the present administration and the Republican party for ratification, and all provide for a reduction of 25 per cent. from the duties imposed by the Dingley bill upon all sugar imported from them into the United States. A treaty has also been signed with Argentina, which has been sent to the Senate and is in receipt of a letter from the President that provides for a reduction of 20 per cent. from the rates of the Dingley bill on sugar imported into the United States from Argentina.

"The Republican party squarely before the people and the country as favoring that sugar shall be imported into this country from British possessions and from Argentina at a much greater rate than it shall be imported from our own possessions in the Philippine Islands. No moral obligation can be urged for the extermination of the extension of these rebates and privileges to foreigners while they are denied to our own people. If this policy is to prevail, in order to obtain trade advantages with the United States, it is better to be a British subject than to be a citizen of the United States. History will fail to furnish another such example where a government has so wantonly and openly ignored the rights and privileges of its own people in order to subserve foreigners and strangers. I believe the American people will repudiate a discrimination so suicidal, so unjust as this. They would greatly prefer consuming sugar raised by the unfortunate inhabitants of the Philippine Islands than sugar raised by British subjects.

"Mr. Chairman, I appeal to this Congress, to its sense of justice, its humanity, its statesmanship, and its wisdom, not to inflict upon these defenseless and helpless people such hardships and such inequalities. Do not teach them that dependence
on America means spoliation. Let them feel that we are their friends, not their foes; that our purposes are to aid them, not to despoil them; to open, and not to close, avenues of commerce.

Mr. Littlefield, of Maine, opposed the measure, but he made his argument against the soundness of the recent Supreme Court decision in the island case. The debate tended, among other speakers on both sides, toward the discussion of the policy of a colonial system.

Dec. 18 the bill was passed by the following vote:


Answered "Present"—Griffith, Hedge, Rup pert—3.

The measure was reported to the Senate with amendments, Jan. 10, 1902, and edited. At length, amended and passed, Feb. 24, by the following vote:


Nays—Bacon, Bailey, Bate, Barry, Carmack, Clark of Montana, Clay, Cockrell, Culberson, Dobaio, Foster of Louisiana, Gibson, Heitfeld, McLaurin of Mississippi, Mallory, Martin, Money, Patterson, Pettus, Rawlin, Simmons, Taliaferro, Teller, Turner, Vest, Wellington—26.


The discussion in the Senate took a wide range, going so far afield that no little time was spent in reviewing the record of various colonies in the Revolutionary War. The main attack on the measure, however, was in regard to the transfer of the powers of the congress to the islands, and through him to the Philippine Commission, made the previous year in an amendment to an appropriation bill. The Senate amendments to this tariff act reduced the duty on goods from the Philippine Islands imported into the United States 25 per cent. on the regular rates; allowed a rebate on goods paying export duty from the islands to the extent of that duty, regulated the coast-trade, and provided safeguards for individual rights. The House non-concurred on these amendments, a conference committee was appointed, and its report was adopted, March 1 and March 3. The measure was approved by the President March 8, 1902. The text of it is as follows."

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the provisions of an act entitled "An Act to revise and amend the tariff laws of the Philippine Archipelago, enacted by the United States Philippine Commission on the 17th day of September, 1901, shall be and remain in full force and effect, and there shall be levied, collected, and paid upon all articles
coming into the Philippine Archipelago from the United States the rates of duty which are required by the said act to be levied, collected, and paid upon like articles imported from foreign countries into said archipelago.

"SEC. 2. That on and after the passage of this act there shall be levied, collected, and paid upon all articles coming into the United States from the Philippine Archipelago the rates of duty which are required to be levied, collected, and paid upon like articles imported from foreign countries. Provided, That upon all articles the growth and product of the Philippine Archipelago coming into the United States from the Philippine Archipelago there shall be levied, collected, and paid only 75 per cent. of the rates of duty aforesaid: And provided further, That the rates of duty which are required hereby to be levied, collected, and paid upon products of the Philippine Archipelago coming into the United States shall be less any duty or taxes levied, collected, and paid thereon the shipment thereof from the Philippine Archipelago, as provided by the act of the United States Philippine commission of January 28, 1901, as amended, and under such rules and regulations as the Secretary of the Treasury may prescribe, but all articles, the growth and product of the Philippine Archipelago, shall be covered by the provisions of the act of the United States free of duty under the provisions of this act and coming directly from said islands to the United States for use and consumption therein shall be exempt from any export duties imposed in the Philippine Islands.

"SEC. 3. That on and after the passage of this act the same tonnage taxes shall be levied, collected, and paid upon vessels coming into the United States from the Philippine Archipelago which are required by law to be levied, collected, and paid upon vessels coming into the United States from foreign countries: Provided, however, That until July 1, 1904, the provisions of law restricting to vessels of the United States the transportation of passengers and merchandise directly or indirectly from one port of the United States to another port of the United States shall not be applicable to foreign vessels engaging in trade between the Philippine Archipelago and the United States or between ports in the Philippine Archipelago: And provided further, That the Philippine Commission shall be authorized and empowered to prescribe by regulations the limits in which to engage in lightering or operating exclusively harbor business to vessels or other craft actually engaged in such business at the date of the passage of this act, and to vessels or other craft built in the Philippine Islands or in the United States and owned by citizens of the United States or by inhabitants of the Philippine Islands.

"SEC. 4. That the duties and taxes collected in the Philippine Archipelago in pursuance of this act, and all duties and taxes collected in the United States upon articles coming from the Philippine Archipelago and upon foreign vessels coming into the United States, shall be held as a separate fund and paid into the treasury of the Philippines, to be expended and expended for the government and benefit of said islands.

"SEC. 5. That when duties prescribed by this act are based upon the weight of merchandise deposited in said warehouse, said duties shall be levied and collected upon the weight of such merchandise at the time of its entry.

"SEC. 6. That all articles manufactured in bonded manufacturing warehouses in whole or in part of imported materials, or of materials subject to internal-revenue tax and intended for shipment from the United States to the Philippine Islands, shall, when so shipped, under such regulations as the Secretary of the Treasury may prescribe, be exempt from internal-revenue tax, and shall not be charged with duty except the duty levied under this act upon imports into the Philippine Islands.

"That all articles subject under the laws of the United States to internal-revenue tax, or on which the internal-revenue tax has been paid, and which may under existing laws and regulations be exported to a foreign country without the payment of such tax, or with benefit of drawback, as the case may be, may also be shipped to the Philippine Islands with like privilege, under such regulations and the filing of such bonds, bills of lading, and other security as the Commissioner of Internal Revenue may, with the approval of the Secretary of the Treasury, prescribe. And all taxes paid upon such articles shipped to the Philippine Islands under the act of August 24, 1901, under the decision of the Secretary of the Treasury of that date, shall be refunded to the parties who have paid the same, under such rules and regulations as the Secretary of the Treasury may prescribe, and a sum sufficient to make such payment is hereby appropriated, out of any money in the Treasury not otherwise appropriated.

"That where materials on which duties have been paid are used in the manufacture of articles manufactured or produced in the United States, there shall be allowed on the shipment of said articles to the Philippine Archipelago a drawback equal in amount to the duties paid on the materials used, less 1 per cent. of such duties, under such rules and regulations as the Secretary of the Treasury may prescribe.

"SEC. 7. That merchandise in bonded warehouse or otherwise in the custody and control of the officers of the customs, upon which duties have been paid, shall be entitled, on shipment to the Philippine Islands within three years from the date of the original arrival, to a return of the duties paid less 1 per cent, and merchandise upon which duties have not been paid may be shipped without the payment of duties to the Philippine Islands within said period, under such rules and regulations as may be prescribed by the Secretary of the Treasury.

"SEC. 8. That the provisions of the act entitled 'An Act to simplify the laws in relation to the collection of revenues,' approved June 10, 1890, as amended by an act entitled 'An Act to provide for the government and to encourage the industries of the United States,' approved July 24, 1897, shall apply to all articles coming into the United States from the Philippine Archipelago.

"SEC. 9. That no person in the Philippine Islands shall, under the authority of the United States, be convicted of or imprisoned by any tribunal, civil or military, unless on the testimony of two witnesses to the same overt act, or on confession in open court.

"March 31, 1902, there was reported from the Senate Committee on the Philippines, with amendments, 'An Act temporarily to provide for the administration of the affairs of civil and military government in the Peded war commission.' April 18 the discussion of the measure in the Senate began; and it continued at intervals until June 3, various Senators en-
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tering into elaborate and interesting discussion of the provisions of the measure, the policy of holding the islands as a colony, the conduct of the Spanish, and kindred matters. Mr. Raw-llins, of Utah, speaking in opposition to the bill, denounced it as the establishment of a despotism.

He said:

"Across the water there are more than 10,000 suffering people silent and unheard, but whose souls doubtless cry out against wrongs, cruel, unspeakable, beyond the ken of mortal language to describe. There are more than 70,000 people on this side of the water wanting to know the truth hitherto stifled and suppressed.

"Mr. President, it seems to me that it is a time when it is a patriotic duty to give utterance to the truth that the American people may be advised, and that we may intelligently deal with the important questions which confront us.

"Friends of justice, champions of liberty, have ever been jealous of the encroachment of executive or kingly power, and those who, irrespective of consequences to themselves, have resisted its aggression and refused to be seduced by its blandishments have gone into history with enduring and honorable fame, while those who have catered to it and sought to profit by the favors which it had to bestow have sunk in ignominy, or re- membered only remembered to be despised.

"What is this bill? The Senator who introduced it has not explained it; but upon its examination we find that it continues if it does not establish in perpetuity a presidential despotism—not a benevolent despotism, but a cruel, a remorseless, and a predatory despotism.

"For this they have no warrant in our history or our traditions. To do this they must trample under foot the precepts of our Constitution and the axioms of our liberty. This bill reaches backward as well as forward. It strikes its roots into and receives its support from that precedence upon the army appropriation bill of 1901 known as the 'Spooner amendment.' The qualification of the absolute power therein conferred, adopted at the instance of the Senator from Massachusetts, by this bill is eliminated. After the bill shall have passed, this absolute power will still stand upon every qualification and limitation. In order to comprehend this bill, therefore, it is necessary to read into it as a part of it that grant of absolute authority."

Discussing more in detail the scope of the measure, he said:

"You will see an outline here of wonderfully complicated machinery. These various departments and bureaus, covering every conceivable subject of administration, are to be supported by the taxes derived from the people of the Philippine Islands. The heads of these bureaus and all the subordinates and employees connected with them are dependent for the tenure of their office and the amount and payment of their salaries upon the United States Philippine Commission. They are subservient in all respects to the edicts and behests of that commission. The persons now in office, so far as we are enabled to determine from an inspection of the law and from anything in the bill which we now have under consideration, are to continue to hold those offices during life; and that is true of the membership of the United States Philippine Commission, and is hereby selected by the President, and now constitute the sole depository of all power in the islands. They are to hold their positions during life, nothing being said about good behavior. The concurrence of the Senate is only required as to future appointments, and the bill is very careful to prevent the possibility of the Senate passing upon the fitness of the persons who are, during their lives it may be, to exercise these unusual and contrary powers to which I have already made reference.

"When we come to consider the judiciary, which is provided for in the next section, we shall find that that, too, is absolutely dependent upon the will of the United States Philippine Commission and will be subservient to its purposes. When we proceed further to ascertain if there be any limitations circumscribing the authority mentioned in the Spooner amendment which I have read, we look in vain. They have control of the courts. They have control of the salaries and the tenure of judges. The extent of the jurisdiction which any one of them may exercise, if any, is dependent wholly upon the action of the commission. All property and rights—rights in the generic sense, without qualification, as distinguished from property, embracing thereby, as it does, according to every reasonable implication, the sovereignty, if any, that we acquired from Spain by purchase, from 800 islands; more than 67,000,000 acres of land embracing mountains, volcanoes, valleys, lakes, rivers, and swamps, timber resources, whatever they may be— they all these things are over absolutely to the control and the disposition of the United States Philippine Commission. Of the 76,000,000 acres of land to-day, according to the reports, there are but 5,000,000 acres subject to private ownership, and this bill is not consistent to leave that in the hands of the people who have acquired it, because there is a provision in the bill authorizing the same United States Philippine Commission to appropriate it in the exercise of the power of eminent domain and to dispose of it, to sell it, or give it away, as they may deem proper. In order to acquire it they are given authority to issue mortgages and if mortgaged, mortgaging the future of the islands and their people.

"All these lands, every acre and every foot of land within the archipelago, including all appurtenances, all rights of every description, under the provisions of this bill are to be disposed of absolutely without limitation, according to the rules and regulations which may be enacted or prescribed by the United States Philippine Commission. I said 'without limitation.' Practically so. This limitation is provided in one of the sections of the bill. When the rules of the United States Philippine Commission are passed, they are to be submitted to the President, and not to take effect until approved by him. They are to be submitted to Congress, and if not disapproved by Congress before the expiration of the next session of Congress, then they become effective and go into operation.

"The despotism is continued upon the President of the United States and the United States Philippine Commission is therefore in no degree limited with respect to the rules and regulations providing for the disposal of power in the islands, except to the extent that Congress may be able, after the rules are submitted for its consideration, to disapprove of those rules within the time limited. Either House may prevent such
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Disapproval, and delay may prevent such disapproval, although a majority of each house may so desire.

In this cursory review of the general powers of the commission it follows, it seems to me, without possibility of controversy, that the commission, under the direction of the President, may declare war and make peace. The President and such person or persons as he may designate and under his direction possess all civil, judicial, and military power necessary to govern the islands. That covers and includes every conceivable power. They may declare war and make peace, because the Constitution does not restrict them. That reservation to Congress is of no potency when we step beyond the shores of the continental republic. That is the theory of the friends and supporters of this bill:

The same oligarchy can raise armies and provide arms, and create commerce among the islands and with foreign countries, with any sort of discrimination as to islands and ports. It may lay taxes to the extent of the destruction of the subjects of taxation, with a justice and without uniformity, because there is no such limit circumscribing its authority. It may coin money and regulate the value thereof, and it has also a lien and a right to coinage and currency as well as banking. It may pass ex-post-facto laws and bills of attainder, working corruption of the blood to the remotest generation, without limitations, as in the case of Philippine Island crimes, and those crimes causing proceedings now pending therein or hereafter determined thereby in which the Constitution or any statute, treaty, title, right, privilege, or obligation of the United States is involved, or in cases in which the value in controversy exceeds $5,000, or in which the title or possession of real estate exceeding in value the sum of $5,000, to be ascertained by the oath of either party or of other competent witnesses, is involved or brought in question; and such final judgments or decrees may be enforced, reviewed, reversed, modified, or affirmed by said Supreme Court of the United States on appeal or writ of error by the party aggrieved, in the same manner, under the same regulations, and by the same procedure, as for cases in the courts of first instance, and the final judgments and decrees of the circuit courts of the United States.

Mr. President, it will be noted that there is no jurisdiction given the Supreme Court of the United States except such as the Philippine Commission may see fit to allow to be exercised.

Having absolute control of the jurisdiction of the supreme court of the islands, that commission can cut off any case from reaching the Supreme Court of the United States which they do not wish to have come before that tribunal for determination. So we have the courts constructed upon such a plan as to be subject absolutely to the control of the United States Philippine Commission; and those courts, therefore, no safeguard against the exercise of any power which that commission may undertake to employ, and the victim of its oppression, if it shall practise oppression, can have no remedy except such remedy as the commission may see fit to provide.

If it is desired by the commission to appropriate lands to subserve purposes which they may wish to subserve, and to employ the judiciary to that end, they have a subservient tool to carry out that wish. If they want to deprive of liberty any man who becomes obnoxious to them or dares to assert a policy which may be antagonistic to that which they desire, they have
the courts as subservient tools for his suppression. Section 10 reads as follows:

"That all the property and rights which may have been acquired in the Philippine Islands by the United States under the treaty of peace with Spain, 1898, are hereby placed under the control of the government of the Philippine Islands to be administered for the benefit of the inhabitants of the islands, except as hereinafter provided."

The purpose of that is self-evident. I have already made sufficient comment upon it. The next section is as follows:

"Sec. 11. That the government of the Philippines, subject to the provisions of this act and except as hereinafter provided, shall make rules and regulations for the lease, sale, or other disposition of the public lands other than timber or mineral lands, but such rules and regulations shall not go into effect or have the force of law until they have received the approval of the President, by and through the Secretary of War, and they shall also be submitted to Congress, and unless disapproved or amended by Congress at the next ensuing session after their submission they shall at the close of such session have the force and effect of law in the Philippine Islands, when they shall have received the approval of the President, as hereinafore provided."

Those two sections put together place lands of every description within the islands subject to these rules and regulations for lease, sale, or other disposition. The power which this section confers upon the President and the commission may be employed to any conceivable iniquitous end. It is looking wholly upon the honor, the disposition, or the integrity of the men who may happen to constitute the government.

We already know the ends really to which these powers are to be employed. They have been pointed out to us by the civil governor of the islands. It is designed that leases may be made to cover a period in the neighborhood of a hundred years. The nature or terms of those leases of course may be prescribed by the commission. The tenure under which those lands may be held may be of a feudal nature. The right to hold the lands in large quantities, as large as 20,000 acres, if not more, to syndicates and corporations, with a view to their exploitation."

Mr. Rawlins subsequently took up the origin of the war in the Philippine Islands, which he described as without justification, and he attacked the method in which it had been carried on as barbarous and cruel, citing general orders and other instances of military outrage to sustain the charge.

Mr. Lodge, of Massachusetts, who was in charge of the measure, said, in the way of general explanation of the bill. He said it was his purpose to secure a marked improvement in this debate over the last debate which was held upon the question of Philippine affairs, because in this debate, so far as it has proceeded, there has been more or less said about the pending measure. I am aware that we devoted one afternoon to a discussion of politics and election methods in North Carolina, but possibly it was not amiss for the sake of the clemency of mercy exhibited in certain parts of our common country as well as in the Philippines. It is true also that we devoted one afternoon to trying to decide whether Aguinaldo caused the assassination of Gen. Luna, whether he had him assassinated in self-defense, or whether Luna was merely killed by the guard. Nothing like the guard did not like his manners. But all these things, Mr. President, have more connection with the matter before us than the discussions about the revolutionary history and the character of a judge at Nome, in which we before indulged. I think, Mr. President, I am not too optimistic, therefore, if I express the hope and the belief that the time will come, and come before long, when we shall discuss measures in regard to the Philippines as we discussed the Chinese-exclusion bill, with a view to getting the best legislation possible in the interests of the people of the islands and the people of the United States.

"The Senate from Tennessee, with the grace of phrase characteristic of his eloquence, asked if any one was prepared to defend the pending bill. In all humility, Mr. President, I will say that I have the effrontery not only to defend the bill, but in my feeble way to advocate it. I believe it to be a well-considered measure, dealing with subjects of great difficulty, to which the committee have given careful attention, over which they have labored assiduously, and the parts of which the minority of the committee have made valuable contribution, for which I am happy to make acknowledgment."

The minor provisions of this bill occupy 28 pages. The major provisions, which are the provisions of the bill are founded was prepared by the Philippine Commission with great labor and attention. It has been revised by a subcommittee of the Senate of the Philippine Islands, and the bill, speaking as a layman in regard to mining laws, that we have embodied in this bill as excellent a mining law as stands on any statute-book. I think the obligation for it due to the subcommittee of the Committee of the Senate, and in a large measure to the Senator from Utah, who brought to the work an expert knowledge which was of great value. I shall not detain the Senate by discussing the details of those mining provisions. That is a task which I leave to the better instructed members who prepared it."

"The coinage sections of the bill occupy 6 pages and provide for coinage in the Philippine Islands. I will only say in regard to the coinage provisions that the committee were satisfied after a careful investigation of the subject, unanimously, with one possible exception, that no greater mistake could be made than to change the standard to which the people have been accustomed for many years. It is always a dangerous thing to change the money standard of a people; and it seemed to the committee that at this time it would be perilous. They are now, and have long been,
upon the single silver standard, with the free coinage of Mexican dollars as the unit of value and the single silver standard, with no change in the standard. We simply substitute for the Mexican dollar an American Filipino dollar, to be coined at the mint of Manila and at the mints in the United States, following in that respect the example of Great Britain in Hong Kong, Singapore, and the Straits Settlements, for which she has coined what is known as the Bombay dollar, which has been of very great advantage to her and to her trade in the commerce of the East. I shall not go further into this question. The sections were prepared by the Senator from Iowa, and I shall leave him, abler and more skilled than any other man in public life to deal with such a question as this, to explain these provisions fully and in detail to the Senate.

The remainder of the bill occupies 19 pages. We begin by continuing the present Philippine Commission. The only change we make in the existing conditions is to require that the commissioners shall be appointed by the President and confirmed by the Senate, and we apply the confirmation of the Senate also to the judges of the supreme court. That, Mr. President, is necessary; there is no need for it. It is designed to leave the government of the islands in the hands of the present commission until the provisions of the succeeding sections may be carried into effect. Those sections provide for taking a census of the islands, which shall give not only the numbers of the people, but all the information that can possibly be desired in order to enable us to establish there a permanent, popular, representative government. It will require, in the nature of things, some time to take such a census, and it is impossible, as it seemed to the committee, to enter suddenly upon the establishment of representative government until we know the numbers of the people, until we have differentiated the wild tribes, who are said to number nearly a million, from the Christianized Filipinos, and also to determine our relations with the Mohammedan tribes of the south. The object of the census sections is to enable Congress to legislate intelligently with a view to giving those people a "popular representative government"; in the meantime, while we take the census to which I refer, the bill continues the commission, and to extend as far as possible the municipal and provincial governments, to be chosen by the people, with the suffrage to be enlarged as rapidly as they think it safe; and to continue to build up in that way the self-government of the people of the islands.

We provide also for the public lands. That, again, is a temporary provision. There is a vast body of public land in the Philippine Islands. The total area of the islands is estimated at 72,000,000 acres, and it is believed that not more than 5,000,000 of those 72,000,000 acres are now in private ownership. That leaves in the hands of the United States, as the heir of Spain, some 67,000,000 acres of public land. The committee felt that it was necessary to have a proper land law—one adapted to the conditions of the islands. It has been left to the commission to prepare such a law, to be transmitted to Congress for its consideration and approval. Until that law is reenacted, we give to the commission power only to make leases of the public lands.

We also provide that they shall give good title to the lands of those who have made improvements upon the land, and the title to the little homesteads or farms which they live on and cultivate, and which, in many cases, they have lived on and cultivated for generations. I think that that is one of the most necessary and beneficent provisions of the bill.

There are also sections which provide and give authority for the issuance of municipal loans, intended for municipal improvements, which are greatly needed, especially in the city of Manila.

We also have provisions in the bill in regard to timber lands, and we have followed the same careful policy in regard to those lands that we have pursued in regard to the public lands generally. We permit the commission only to issue licenses to cut timber, and not to sell any more land than is necessary for the establishment of a sawmill or the opening of a road to give access to the forests.

We have also made provision for the purchase of the friars' lands, as they are called. That is a difficult and unusual question. We authorize the commission to buy the lands of the friars for the purpose of selling them immediately to the people who now occupy them. However witnesses or experts may differ in regard to the affairs in the Philippine Islands, there is but one opinion as to the necessity of taking these friars' lands and giving them over to the people who actually live upon them and cultivate them. The possession of lands by the friars is one of the bitterest grievances of the Filipino people against Spain. The testimony is universal as to their desire to have those lands restored to them. The sections in regard to these lands, of course, in the nature of things, give a large power to the commission, but there is no other way that I have seen suggested to get those lands out of the hands of these religious corporations and back into the hands of the people who cultivate them.

We have also clauses in the bill providing for franchises. They are guarded with the utmost care. I cannot undertake to read, and I shall not detain the Senate by reading, those franchise clauses, but I invite Senators to examine them with care. They are guarded in every possible way compatible with giving any reasonable opening to capital to enter into the islands with the hope of profitable investment.

The main object of the bill, Mr. President, is, in a word, to replace military by civil government—to advance self-government; and yet it is delayed in this chamber and opposed by those who proclaim themselves the especial foes of military rule.

The second object of the bill is to help the development of the islands, and yet, as the committee felt, to help that development only by taking the utmost pains that there should be no opportunity given for undue or selfish exploitation. The opponents of this legislation have dwelt almost continuously, when they have spoken on this bill, on the point that it is intended to open the islands to exploiters, to syndicates, and to carpetbaggers. Why, Mr. President, if we go on the proposition that it is a crime for an American to make money, undoubtedly there is opportunity in this bill for men or corporations of men to enter into the islands and make money in a legitimate way. I am aware, after many years of experience, of the hostility of the Democratic party to any man who has made money, of whom there are a great many among the natives, who have never been able to secure from Spain any title to the little homesteads or farms which they live on and cultivate, and which, in many cases, they have lived on and cultivated for generations. I think that that is one of the most necessary and beneficent provisions of the bill.
with complete success during their last tenure of power. Few, if any, Americans at that time knew what the Philippines were, but the present administration, without prompting, gives us a traffic in them. It is true that the Filipinos are a warlike people, and that the United States has a treaty with them, but the Filipinos are a warlike people. The Filipinos are not a peace-loving people, and the United States is not a warlike people.

Mr. Patterson, of Colorado, proposed to amend the measure by inserting the provision: "The trial of all crimes except in cases of impeachment shall be by jury; and such trial shall be held in the province where the said crime shall have been committed." The amendment was defeated by a vote of 47 to 29.

Mr. Teller, of Colorado, proposed the following amendment:

"It is not the intention of the Government of the United States to harass or oppress the inhabitants of the islands in any way. The Filipinos, from which our laws expressly exclude them, the dismal picture is then drawn of what will happen to the islands if we do not let the Filipinos go. The testimony in the case is very clear to my mind that the Filipinos, if they have an opportunity to earn good wages and to have them regularly paid—something which has never happened to them under Spanish rule—they will be found quite capable of doing all the work that is needed in the islands. They are skilful workers in the factories they have there, such as the cigarette factories; they are noted as good machinists; they are dealt with ingenuously with their hands; they work in the rice-fields under a sun which is too much even for Chinamen, and they carry on all the cultivation of the islands. If we once give them an opportunity to perform this new work and receive regular wages and be properly paid, I am sure we shall find that the labor is there, so that the Filipinos can develop their own territory. It may be a slower process than if we should throw the islands open now to sudden exploitation in large masses of territory with great boom of capital and with Chinese labor; but that it is simple justice to the people of those islands, and that it is infinitely better to give them the arrangement that we have given them is, to my mind, too clear for argument."

The great part of Mr. Lodge's speech, however, was devoted to an argument in vindication of the conduct of the army rather than a discussion of the policy of the bill. In conclusion he said, after the presentation of much evidence on the subject:

"Now, Mr. President, I do not seek to defend any cruelty, but I do want to have justice done to the American army. I want the people of the country to know when they read of cruelties to the hostile Filipinos what the provocation has been; I want them to think of what our men have suffered and endured; I want, and we can afford to give, absolute justice to the American army. I do not wish to be put in a position of being the defender of cruelties; but if I must take my choice between men, then I am for the friendly native, the friend of America, against the cruel, the savage, the murderer. I am for the American army against the insurgents. I do not like to hear that army assailed as it has been assailed. It is our army; its glory is our glory. We cannot tarnish that glory without tarnishing the glory of the United States, and the name of the country abroad. When we heap obloquy upon them on account of these cruelties, I say again, remember the provocation, remember the faces of the dead boys under the sands of Luxon—not dead by battle, but dead by murder; remember the dead and the treatment of captured prisoners, and let us show some little understanding of the trials which those officers and those soldiers have had to undergo."

Preliminary to the final vote on the passage of the bill in the Senate several important amendments were proposed and rejected.

Mr. Patterson, of Colorado, proposed to amend the measure by inserting the provision: "The trial of all crimes except in cases of impeachment shall be by jury; and such trial shall be held in the province where the said crime shall have been committed." The amendment was defeated by a vote of 47 to 29.

Mr. Teller, of Colorado, proposed the following amendment:

"It is not the intention of the Government of the United States to harass or oppress the inhabitants of the islands, or to deprive them of their liberty, but, on the contrary, to assist them to establish a government of their own that shall secure to them all privileges, advantages, and blessings enjoyed by a free people, and ultimate independence under the protection of the United States against foreign powers and domestic violence. And to secure these ends as speedily as possible, the Government of the United States invites and urges the people of said islands to aid the United States authorities now exercising power in the islands to secure peace and order."

This was defeated by a vote of 47 to 30.

Mr. Carmack, of Tennessee, proposed the following amendment:

"That the United States regard with extreme disfavor any movement having for its object the early or ultimate admission of the Philippine Islands as a State or States of the Union; and any action on the part of persons holding office under the authority of the United States that gives sanction or encouragement to such movement is hereby condemned."

"That to the rights and privileges of citizens upon the inhabitants of the Philippine Islands would tend to destroy the integrity of the citizenship and to degrade the character of the Government of the United States."

"That to maintain the relation of sovereign and subject between the Government of the United States and a people under its dominion would be repugnant to the principles of the Constitution."

The first clause alone was defeated by a vote of 46 to 28, and the second and third clauses by a vote of 49 to 23.

Mr. Culberson, of Texas, proposed as an amendment in the way of a substitute to strike out all after the enacting clause of the bill and insert the following:

"That subject to the provisions hereinafter set forth for the United States of America hereby relinquish all claim of sovereignty over and title to the archipelago known as the Philippine Islands."

"Sec. 2. That the United States shall continue to occupy and govern said archipelago until the people thereof have established a government in accordance with the provisions of this act, with sufficient guaranties for the performance of our treaty obligations with Spain and for the safety
of those inhabitants who have adhered to the United States, and for the maintenance and protection of all which shall be secured under the authority thereof, as heretofore provided.

"SEC. 3. That upon the cessation of organized armed opposition to the temporary sovereignty of the United States Government the President of the United States shall proclaim the fact, and within ninety days after the issuance of such proclamation the United States Philippine Commission shall make and promulgate rules and regulations for the holding of an election in the various provinces of said Philippine Archipelago for members of a house of representatives and a senate, to constitute a temporary congress, which shall be vested with full legislative power and also with the power of appointing such judges as may to them seem proper and necessary. The said Philippine congress shall prescribe rules and regulations for the election or appointment of all other officers, provincial or municipal, as may to them seem proper and necessary. The members of the said senate and house shall hold their offices for the term of four years from and after their election and qualification, unless said terms of office are sooner terminated by resignation or removal by the United States government created by the constitutional convention hereinafter provided for, and all other officers shall hold office for such terms as may be prescribed by said congress. Sentinels and representatives in congress are to receive compensation at the rate of — dollars per annum and other officers shall receive such compensation as may be prescribed by the congress.

"The chief executive shall be appointed by the President of the United States, by and with the advice and consent of the Senate of the United States, and shall hold his office for a term of four years unless the temporary government shall within that time be superseded by the inauguration of the permanent government herein provided for, and said president shall receive a compensation of $10,000 per annum, to be paid out of the Philippine treasury. There shall be other executive officers receiving such compensation and performing such duties as may be prescribed by the Philippine congress, and they shall be appointed or elected in such manner as may be prescribed by law.

"During the period of the existence of the temporary government herein provided for, which shall in no event extend beyond four years from and after the date of its inauguration, the United States guarantee to the people of said Philippines their independence and a republican form of government, and shall protect them against invasion and, upon application by the congress thereof, against domestic violence.

"That all male inhabitants of said archipelago twenty-one years of age and over who can speak and write either the English or Spanish language, or any of the native languages of said archipelago, shall have resided therein for one year, shall be qualified to vote for members of congress and other elective officers, and any person so qualified as an elector shall be qualified to be a member of said congress or to hold any elective office.

"The house of representatives shall be composed of 100 members and the senate of 30 members, and shall be appointed by the United States Philippine Commission among the several provinces of said archipelago, so that the distribution of membership in the house of representatives shall be in proportion to their population, as near as may be, and so that the membership of the senate shall be as nearly representative of separate provinces as may be; and when said apportionment has been determined upon, the said commission shall by proclamation order an election of the members of said congress to be held throughout the said archipelago, at such time as shall be fixed by the said commission, which election shall be held not more than one hundred and twenty days from the date of the proclamation by the President of the United States herebefore provided for, and ample time shall be given before said election to circulate said proclamation throughout the archipelago and arrange for the holding of said election.

"SEC. 4. That the members of the congress thus elected shall meet at the city of Manila on a day to be fixed by the United States Philippine Commission, not less than ninety days nor more than one hundred and twenty days subsequent to the day of election, the time for which meeting shall be stated in the proclamation aforesaid; and after organization the said congress and president shall hold by the temporary government herein provided for, shall proceed to the performance of their duties as the temporary government of the Philippine Archipelago: Provided, That said congress shall provide by legislation and treaty, irrevocable without the consent of the United States —

"First. That there shall belong to the United States, and continue to be the property thereof, such lands and waters as the President of the United States shall designate to the Philippine government, and shall be agreed to by it, for naval, military, and coaling stations, and terminal facilities for submarine cables, the same to continue under the control and sovereignty of the United States.

"Second. To carry into effect the treaty obligations of the United States with the Kingdom of Spain and for the maintenance and protection of all rights and property acquired under the authority of the United States.

"Third. That no inhabitant of said archipelago shall ever be molested in person or property on account of his or her adherence to the United States.

"SEC. 5. That when the election herein provided for shall have taken place and the congress thereby elected shall have convened, in compliance with the provisions of the act, the said United States Philippine Commission shall certify the fact to the President of the United States, whereupon it shall be the duty of the President to issue his proclamation declaring the independence of the people of said archipelago and that they constitute an independent state and nation; subject, however, to the control and regulation by the United States of their intercourse with foreign nations during the period of the existence of the temporary government herein provided for.

"SEC. 6. That immediately after the President shall have proclaimed that all organized armed resistance to the United States has ceased in said archipelago, he is requested to proclaim full amnesty to all inhabitants thereof on account of political offenses and the bearing of arms against the United States, and all Philippines
or inhabitants of said archipelago who have been deported shall be returned to the place whence they were deported; Provided, That such amnesty shall not apply to any who have violated the rules of civilized warfare or who have been guilty of murder or torture; that the latter, if any, shall be afforded a speedy trial for their offenses in the civil courts of said archipelago and be punished or acquitted, as the facts and law may warrant.

"Sec. 7. That within sixty days from the election of officers under the temporary government to be formed by the people of the Philippine Archipelago, in accordance with the provisions of this act, and the inauguration of said officers, the President shall cause the armed forces of the United States to be withdrawn from said archipelago as speedily as may be, except such forces as may be retained in such parts thereof as have been retained by the United States for naval, military, and coasting stations and terminal facilities for cables, and the President of the United States and the Secretary of War shall make all needful regulations to carry into effect the provisions of this section.

"Sec. 8. That it shall be the duty of the Philippine Congress herein provided for to prescribe rules and regulations and qualifications for electors for the election and holding of a constitutional convention which shall be charged with the duty of framing a permanent government for the people of the Philippine Archipelago. Said constitutional convention shall be called to meet at such place and at such time, not later than the first Monday of December, 1905, as may be prescribed by said Philippine congress. Upon the completion of the labors of said convention and the inauguration of the government consequent thereupon, it shall be the duty of the President of the United States to issue his proclamation declaring the absolute and unconditional independence of the people of the Philippine Archipelago and that they constitute an independent state and nation, and upon the issuance of said proclamation the United States Government and the Philippine government shall become and be as fully separate and independent as if those were separate and independent nations: Provided, however, That if the Philippine government request it, the United States Government hereby agrees to assume the protectorate over the Philippine Archipelago for a period additional to the period of the temporary government herein provided for, said additional period of protectorate not to exceed, however, the period of sixteen years: Provided further, That the said Philippine government agree during the said period of additional protectorate to surrender to the keeping of the United States Government the regulation and control of the foreign affairs of the Philippine Archipelago.

"Sec. 9. That all terms of office of legislative, executive, and judicial officers of the temporary government hereinbefore provided for, including the term of office of the president, and the terms of office of the senators and representatives in congress hereinbefore prescribed, shall terminate with the existence of the temporary government herein provided for, and said temporary government shall ipso facto cease to exist upon the inauguration of the permanent government to be called into existence by the constitutional convention herein provided for; and nothing herein contained shall be so construed as to prevent the continued residence of the President and of the members of the Assembly of the Philippine Islands at said place.
This also provides for two commissioners, to be elected by the legislature.

"The occupation and possession of the forces of the United States, together with the subsequent amendments of said order, are hereby approved, ratified, and confirmed, and the actions of the authorities of the government of the Philippine Islands, taken in accordance with the provisions of said order and annexes to 1,084 hectares. The Senate has further agreed to the House provisions restricting the ownership and control by members of corporations, and corporations, of mining and agricultural lands, with additional stringent provisions limiting these holdings.

"In the coinage provision reported, the Senate receded from the Senate for the coinage of a Philippine silver dollar, and the House receded from its provision for the establishment of a gold standard. The report agrees upon the provisions for subsidiary coins and minor coins, the names of which are to be those contained in the House bill, and substantially as provided for in the House bill.

"The provisions relating to banks are eliminated from the bill.

"The bill contains the legislative limitations and bill of rights, complete, as in the House bill.

"The mining provisions of the bill reported are to be subject to the discretion of the citizens of the Philippine Islands and as such entitled to the protection of the United States, except such as shall have elected to preserve their allegiance to the Crown of Spain in accordance with the provisions of the treaty of peace between the United States and Spain signed at Paris, Dec. 10, 1898.

"SEC. 5. That no law shall be enacted in said islands which shall provide for the possibility of any person of life, liberty, or property without due process of law, or deny to any person therein the equal protection of the laws.

"That in all criminal prosecutions the accused shall enjoy the right to be heard by himself and counsel, to demand the nature and cause of the accusation against him, to have a speedy and public trial, to meet the witnesses face to face, and to have compulsory process to compel the attendance of witnesses in his behalf.

"That no person shall be held to answer for a criminal offense without due process of law; and no person for the same offense shall be twice put in jeopardy of punishment, nor shall be compelled in any criminal case to be a witness against himself.

"That all persons shall before conviction be bailable by sufficient surties, except for capital offenses.

"That no law impairing the obligation of contracts shall be enacted.

"That no person shall be imprisoned for debt.

"That the privilege of the writ of habeas corpus shall not be suspended, unless when in cases of rebellion, insurrection, or invasion the public safety may require it, in either of which events the same may be suspended by the President, or by the governor, with the approval of the Philippine Commission, wherever during such period the necessity for such suspension shall exist.

"That no ex post facto law or bill of attainder shall be enacted.

"That no law granting a title of nobility shall be enacted, and no person holding any office of profit or trust or employ of the United States shall, with the consent of the Congress of the United States, accept any present, emolument, office, or title of any kind whatever from any king, queen, prince, or foreign State.

"That excessive bail shall not be required, nor
excessive fines imposed, nor cruel and unusual punishment inflicted.

"That the right to be secure against unreasonable searches and seizures shall not be violated.

"That neither slavery, nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist in said islands.

"That no law shall be passed abridging the freedom of speech or of the press, or the right of the people peaceably to assemble and petition the Government for redress of grievances.

"That no law shall be made respecting an establishment of religion or prohibiting the free exercise thereof, and that the free exercise and enjoyment of religious profession and worship, without discrimination or preference, shall forever be allowed.

"That no money shall be paid out of the treasury except in pursuance of an appropriation by law.

"That the rule of taxation in said islands shall be uniform.

That no private or local bill which may be necessary to laws shall embrace more than one subject, and that such bill shall be expressed in the title of the bill.

That no warrant shall issue but upon probable cause, supported by an oath or affirmation, and particularly describing the place to be searched and the person or things to be seized.

That all money collected on any tax levied or assessed for any public purpose shall be treated as a special fund in the treasury and paid out for such purpose only.

SEC. 8. That whenever the existing insurrection in the Philippine Islands shall have ceased and a condition of general and complete peace shall have been established therein and the fact shall be certified to the President by the Philippine Commission, the President, upon being satisfied thereof, shall order a census of the Philippine Islands to be taken by said Philippine Commission; such census in its inquiries relating to the population shall take and make so far as practicable full report for all the inhabitants, of name, age, sex, race, or tribe, whether native or foreign born, literacy in Spanish, native dialect or language, ownership of homes, industrial and social statistics, and such other information separately for each island, each province, and municipality, or city, as the President shall direct, as the Philippine and said commission may deem necessary: Provided, That the President may, upon the request of said commission, in his discretion, employ the service of the Census Bureau in compiling and promulgating the statistical information above provided for, and may commit to such bureau any part or portion of such labor as to him may seem wise.

SEC. 7. That two years after the completion and publication of the census, in case such condition of general and complete peace with recognition of the authority of the United States shall have continued in the territory of said islands not inhabited by Moros or other non-Christian tribes and such facts shall have been certified to the President by the Philippine Commission, the President upon being satisfied thereof shall direct said commission to hold and the commission shall call, a general election to the delegates in specified districts to the Philippine Assembly, which shall be known as the Philippine Assembly. After said assembly shall have convened and organized, all the legislative power heretofore conferred on the Philippine Commission in all that part of said islands not inhabited by Moros or other non-Christian tribes shall be vested in a legislature consisting of two houses—the Philippine Commission and the Philippine Assembly. Said assembly shall consist of not less than 50 nor more than 100 members to be appointed by said commission among the provinces as nearly as practicable according to population: Provided, That no province shall have less than one member: And provided further, That provinces entitled by population to more than one member may be divided into such convenient districts as the said commission may deem best.

Public notice of such division shall be given at least ninety days prior to such election, and the election shall be held under rules and regulations to be prescribed by law. The qualifications of electors in such election shall be the same as is now provided by law in case of electors in municipal elections. The members of assembly shall hold office for two years from the first day of January next following their election, and their successors in office shall be elected by the people every second year thereafter. No person shall be eligible to such election who is not a qualified elector of the election district in which he may be residing, unless he is a citizen of the United States, and twenty-five years of age.

"The legislature shall hold annual sessions, commencing on the first Monday of February in each year and continuing not exceeding ninety days thereafter (Sundays and holidays not included): Provided, That the first meeting of the legislature shall be held upon the call of the governor within ninety days after the first election: And provided further, That if at the termination of any session the appropriations necessary for the support of government shall not have been made, an amount equal to the sums appropriated in the last appropriation bills for such purposes shall be deemed to be appropriated; and until the legislature shall act in such behalf the treasurer may, with the advice of the governor, make the payments necessary for the purposes aforesaid.

"The legislature may be called in special session at any time by the chief executive officer for general legislation, or for action on such specific subjects as he may designate. No special session shall continue longer than thirty days, exclusive of the President and said commission may be deemed necessary: Provided, That the President may, upon the request of said commission, in his discretion, employ the service of the Census Bureau in compiling and promulgating the statistical information above provided for, and may commit to such bureau any part or portion of such labor as to him may seem wise.

"The assembly shall be the judge of the elections, returns, and qualifications of its members. A majority shall constitute a quorum to do business, but a smaller number may adjourn from day to day and may be authorized to compel the attendance of absent members. It shall choose its speaker and other officers, and the salaries of its members and officers shall be fixed by law. It may determine the rule of its proceedings, punish its members for disorderly behavior, and with the concurrence of two-thirds expel a member. It shall keep a journal of its proceedings, which shall be published, and the yeas and nays of the members on any question shall, on the demand of one-fifth of those present, be entered on the journal.

"SEC. 8. That at the same time with the first meeting of the Philippine legislature, and brieﬂingly thereafter, there shall be chosen by said legislature, each of the territories to select a resident commissioner to the United States, who shall be entitled to an ofﬁcial recognition as such by all departments upon presentation to the President of a certiﬁcate of election by the
CONGRESS. (THE PHILIPPINE ISLANDS.)

nated by the President of the United States for military and other reservations of the Government of the United States of $5,000 per annum, and $2,000 additional to cover all expenses: Provided, That no person shall be eligible to such election who is not a qualified elector of said islands, owing allegiance to the United States, and who is not thirty years of age.

"Sec. 9. That the supreme court and the courts of first instance of the Philippine Islands shall possess and exercise jurisdiction as heretofore provided and such additional jurisdiction as shall hereafter be prescribed by the government of said islands, subject to the power of said government to change the practice and method of procedure. The municipal courts of said islands shall possess and exercise jurisdiction as heretofore provided by the Philippine Commission, subject in all matters to such alteration and amendment as may be hereafter enacted by law; and the chief justice and associate justices of the supreme court shall hereafter be appointed by the President, by and with the advice and consent of the Senate, and shall receive the compensation heretofore prescribed by the commission until otherwise provided by Congress. The judges of the court of first instance shall be appointed by the civil governor, by and with the advice and consent of the Philippine Commission: Provided, That the admiralty jurisdiction of the United States supreme court and courts of first instance shall not be changed except by act of Congress.

"Sec. 10. That the Supreme Court of the United States shall have jurisdiction to review, revise, reverse, modify, or affirm the final judgments and decrees of the supreme court of the Philippine Islands in all actions, cases, causes, and proceedings now pending therein or hereafter determined therein in which the Constitution or any statute, treaty, title, right, or privilege of the United States is involved, or in causes in which the value in controversy exceeds $25,000, or in which the title or possession of real estate exceeding in value the sum of $25,000, to be ascertained by the oath of either party or of other competent witnesses, is involved or brought in question; and such final judgments or decrees may and can be reviewed, revised, reversed, modified, or affirmed by said Supreme Court of the United States, in all cases, causes, and matters of error by the party aggrieved, in the same manner, under the same regulations, and by the same procedure, as far as applicable, as the final judgments and decrees of the circuit courts of the United States.

"Sec. 11. That the government of the Philippine Islands is hereby authorized to provide for the needs of commerce by improving the harbors and navigable waters of said islands and to construct and maintain in said navigable waters and upon the shore adjacent thereto bonded warehouses, wharves, piers, lighthouses, signal and life-saving stations, buoys, and like instruments or objects for the purpose of preventing and to adopt and enforce regulations in regard thereto, including bonded warehouses wherein articles not intended to be imported into said islands nor milled with the property therein, but brought into a port of said islands for reshipment to another country, may be deposited in bond and reshipped to another country without the payment of customs duties or charges.

"Sec. 12. That all the property and rights which may have been acquired in the Philippine Islands by the United States under the terms of the treaty of peace with Spain, signed Dec. 10, 1898, except such land or other property as shall be desi-
show no other proof of title than possession, shall not apply to more than 16 hectares in any one tract.

"SEC. 17. That timber, trees, forests, and forest products on lands leased or demised by the government of the Philippine Islands under the provisions of this act shall not be cut, destroyed, removed, or appropriated except by special permission of said government and under such regulations as it may prescribe.

"All moneys obtained from lease or sale of any portion of the public domain or from licenses to cut timber by the government of the Philippine Islands shall be covered into the insular treasury and be subject only to appropriation for insular purposes according to law.

"SEC. 18. That the forest laws and regulations now in force in the Philippine Islands, with such modifications and amendments as may be made by the government of said islands, are hereby continued in force, and no timber lands forming part of the public domain shall be sold, leased, or entered until the government of said islands, upon the certification of the forestry bureau that said lands are more valuable for agriculture than for forest uses, shall declare such lands so certified to be agricultural land. Provided, That the said government shall have the right and is hereby empowered to issue licenses to cut, harvest, or collect timber or other forest products on reserved or unreserved public lands in said islands in accordance with the forest laws and regulations hereinbefore mentioned and under the provisions of this act, and the said government may lease land to any person or persons holding such licenses, sufficient for a mill-site, not to exceed 4 hectares in extent, and may grant rights of way to enable such person or persons to get access to the lands to which such licenses apply.

"SEC. 19. That the beneficial use shall be the basis, the measure, and the limit of all rights to water in said islands, and the government of said islands is hereby authorized to make such rules and regulations for the use of water, and to make such reservations of public lands for the protection of the water-supply, and for other public purposes not inconsistent with the provisions of this act, as it may deem best for the public good.

"MINERAL LANDS.

"SEC. 20. That in all cases public lands in the Philippine Islands valuable for minerals shall be reserved from sale, except as otherwise expressly directed by law.

"SEC. 21. That all valuable mineral deposits in public lands in the Philippine Islands, both surveyed and unsurveyed, are hereby declared to be free and open to exploration, occupation, and purchase, and the land in which they are found to occupation and purchase, by citizens of the United States, or of said islands: Provided, That when on any lands in said islands entered and occupied as agricultural lands under the provisions of this act, but not patented, mineral deposits have been found, the working of such mineral deposits is hereby forbidden until the person, association, or corporation who or which has entered and is occupying such lands shall have paid to the government of said islands such additional sum or sums as will make the total amount paid for the mineral claim or claims in which said deposits are located equal to the amount charged by the government for the same as mineral claims.

"SEC. 22. That mining claims upon land contain-ing gold, silver, cinnabar, lead, tin, copper, or other valuable deposits, located after the passing of this act, whether located by one or more persons qualified to locate the same under the preceding section, shall be located in the following manner and under the following conditions: Any person so qualified desiring to locate a mineral claim shall, subject to the provisions of this act with respect to land which may be used for mining, enter upon the same and locate a plot of ground measuring, where possible, but not exceeding, 1,000 feet in length by 1,000 feet in breadth, in as nearly as possible a rectangular form; that is to say: All angles shall be right angles, except in cases where a boundary-line of a previously surveyed claim is adopted as common to both claims, but the lines need not necessarily be meridional. In defining the size of a mineral claim, it shall be measured horizontally, irrespective of inequalities of the surface of the ground.

"SEC. 23. That a mineral claim shall be marked by two posts placed as nearly as possible on the line of the ledge or vein, and the posts shall be numbered one and two, and the distance between posts numbered one and two shall not exceed 1,000 feet, the line between posts numbered one and two to be known as the location line; and upon posts or in some one and two shall be written the name given to the mineral claim, the name of the locator, and the date of the location. Upon post numbered one there shall be written, in addition to the following paragraph: Initial post, the approximate compass bearing of post numbered two, and a statement of the number of feet lying to the right and to the left of the line from post numbered one to post numbered two, thus: Initial post. Direction of post numbered two —— feet of this claim lie on the right and —— feet on the left of the line from number one to number two post. All the particulars required to be put on number one and number two posts shall be furnished by the locator to the provincial secretary, or such other officer as by the Philippine government may be described as mining recorder, in writing, at the time the claim is recorded, and shall form part of the record of such claim.

"SEC. 24. That when a claim has been located the holder shall immediately mark the line between posts numbered one and two so that it can be distinctly seen. The locator shall also place a post at the point where he has found minerals in place, on which shall be written: Discovery post: Provided, That when the claim is surveyed the surveyor shall be guided by the records of the claim, the sketch plan on the back of the declaration made by the owner when the claim was recorded, posts numbered one and two, and the notice on number one, the initial post.

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"SEC. 25. That it shall not be lawful to move number one post, but number two post may be moved by the deputy mineral surveyor when the distance between posts numbered one and two exceeds 1,000 feet, in order to place number two post 1,000 feet from number one post on the line of location. When the distance between posts
numbered one and two is less than 1,000 feet the deputy mineral surveyor shall have no authority to record the claim and the record book to be kept for the purpose of recording the location of the claim shall be entitled to all minerals which may lie within his claim, but he shall not be entitled to mine outside the boundary-lines of his claim continued vertically downward: Provided, That this act shall not prejudice the rights of claim owners nor claim holders whose claims have been located under existing laws prior to this act.

"SEC. 29. That no miner shall record his claim of the full size shall be recorded without the application being accompanied by an affidavit made by the applicant or some person on his behalf cognizant of the facts, or by a solemn declaration made by the applicant or some person on his behalf cognizant of the facts: That the legal posts and notices have been put up; that mineral has been found in place on the fractional claim proposed to be recorded; that the ground applied for is unoccupied by any other person. In the said declaration shall be set out the name of the applicant and the date of the location of the claim. The words written on the number one and number two posts shall be set out in full, and as accurately a description as possible of the position of the claim given with reference to some natural object or permanent monument.

"SEC. 30. That no miner claim which at the date of its record is known by the locator to be less than a full-sized mineral claim shall be recorded without the word 'fraction' being added to the name of the claim, and the application being accompanied by an affidavit or solemn declaration made by the applicant or some person on his behalf cognizant of the facts: That the legal posts and notices have been put up; that mineral has been found in place on the fractional claim proposed to be recorded; that the ground applied for is unoccupied by any other person. In the said declaration shall be set out the name of the applicant and the date of the location of the claim. The words written on the posts numbered one and two shall be set out in full, and as accurately a description as possible of the position of the claim given. A sketch plan shall be drawn by the applicant on the back of the declaration, showing as near as may be the position of the adjoining mineral claims and the shape and size, expressed in feet, of the fractional or fraction desired to be recorded: Provided, That the failure on the part of the locator of a mineral claim to comply with any of the foregoing provisions of this section shall not be deemed to invalidate such location, if upon the facts it shall appear that such locator has actually discovered mineral in place on said location, and that there has been on his part a bona fide attempt to comply with the provisions of this act, and that the non-observance of the formalities hereinbefore referred to is not of a character calculated to mislead other persons desiring to locate claims in the vicinity.

"SEC. 31. That in cases where, from the nature of the ground, it is impossible to mark the location line of the claim as provided by this act, then the claim may be marked by placing posts as nearly as possible to the location line, and noting the distance and direction such posts may be from such location line, which distance and direction shall be set out in the record of the claim.

"SEC. 32. That in case of any dispute as to the location of a mineral claim the title to the claim shall be recognized according to the priority of the location of the claim, subject to any question as to the validity of the record itself and subject to the holder having complied with all the terms and conditions of this act.

"SEC. 33. That no holder shall be entitled to hold in his, its, or their own name or in the name of any other person, corporation, or association more than one mineral claim on the same vein or lode.

"SEC. 34. That a holder may at any time abandon any mineral claim by giving notice, in writing, of such intention to the provincial secretary or such other officer as by the government of the Philippine Islands may be described as mining recorder, and from the date of the record of such notice all interest in such claim shall cease.

"SEC. 35. That proof of citizenship under the clauses of this act relating to mineral lands may consist, in the case of an individual, in the filing of a certified copy of his charter or certificate of incorporation; and in the case of a corporation organized under the laws of the United States, or of any State or Territory thereof, or of the Philippine Islands, by the filing of a certificate of the charter or certificate of incorporation.

"SEC. 36. That the United States Philippine Commission or its successors may make regulations, not in conflict with the provisions of this act, governing the location, manner of recording, and amount of work necessary to hold possession of a mining claim, subject to the following requirements:

"On each claim located after the passage of this act, and until a patent has been issued therefor, not less than $100 worth of labor shall be performed or improvements made during each year: Provided, That upon a failure to comply with these conditions the claim or mine upon which such failure occurred shall be open to re-location in the same manner as if no location of the same had ever been made, provided that the original locators, their heirs, assigns, or legal representatives have not resumed work upon the claim after failure and before such location. Upon the failure of any one of several coowners to contribute his proportion of the expenditures required thereby, the coowners who have performed the labor or made the improvements may, at the expiration of the year, give such delinquent co-owner personal notice in writing, or notice by publication in the newspaper published nearest the claim, and in two newspapers published at Manila, one in the English language and the other in the Spanish language, to be designated by the chief of the Philippine insular bureau of public lands, for at least sixty days prior to the expiration of the year, and if, at the expiration of ninety days after such notice in writing or by publication such de-
linguent shall fail or refuse to contribute his property to the exploration of the claim; and by this section his interest in the claim shall become the property of his co-owners who have made the required expenditures. The period within which the work required to be done annually on all unpatented mineral claims shall commence on the 1st day of January succeeding the date of location of such claim.

"Sec. 37. That a patent for any land claimed and located for valuable mineral deposits may be obtained in the following manner: Any person, association, or corporation authorized to locate a claim under this act, having claimed and located a piece of land for such purposes, who has or have complied with the terms of this act, may file in the office of the provincial secretary, or such other officer as by the government of said islands may be described as mining recorder of the province wherein the land claimed is located, an application for a patent, under oath, showing such compliance, together with a plat and field-notes of the claim or claims in common, made by or under the direction of the chief of the Philippine insular bureau of public lands, showing accurately the boundaries of the claims or claims in common by monuments on the ground, and shall post a copy of such plat, together with a notice of such application for a patent, in a conspicuous place on the land or lands in such plat previous to the filing of the application for a patent, and shall file an affidavit of at least two persons that such notice has been duly posted, and shall file a certified copy of such notice, with reasonable diligence to final judgment, and shall thereupon be entitled to a patent for the land, in the manner following: The provincial secretary, or such other officer as by the Philippine government may be described as mining recorder, upon the filing of such application, plat, field-notes, notices, and affidavits, shall publish a notice that such an application has been made, once a week for the period of sixty days, in a newspaper to be by him designated as nearest to such claim in and in two newspapers published at Manila, one in the English language and one in the Spanish language, to be ordered by the chief of the Philippine insular bureau of public lands; and he shall also post such notice in his office for the same period. The claimant at the time of filing this notice shall deposit with him the sum of $500.00, which sum shall be held by him until after the expiration of the sixty days of publication, and shall be paid to the provincial secretary or such other officer as by the Philippine government may be described as mining recorder, at the expiration of thirty days after filing his claim, to commence proceedings in a court of competent jurisdiction to determine the question of the title to the land, and to prosecute the same with reasonable diligence to final judgment, and to failure so to do shall be a waiver of his adverse claim. After such judgment shall have been rendered the party entitled to the possession of the claim, or any portion thereof, may, without giving further notice, file a certified copy of the judgment roll with the provincial secretary or such other officer as by the government of the Philippine Islands may be described as mining recorder, together with the certificate of the chief of the Philippine insular bureau of public lands that the requisite amount of labor has been expended or improved on the land described in such claim, and shall pay to the provincial treasurer or the collector of internal revenue of the province in which the claim is situated, as the same may be ascertained, the sum of $50.00, and shall thereupon be entitled to a patent for the land, subject to the payment of any other duty or fees required by law.

"Sec. 38. That the applicants for mineral patents, if residing beyond the limits of the province or military department wherein the claim is situated, may make oath and affidavit for proof of citizenship before the clerk of any court of record, or before any notary public of any province of the Philippine Islands, or any other official in said islands authorized by law to administer oaths.

"Sec. 39. That where an adverse claim is filed during the period of publication it shall be upon the oath of the person or persons making the same, and shall show the nature, boundaries, and extent of such adverse claim, and all proceedings, except the publication of notice and making and filing of the affidavit where such claim is marked by monuments on the ground, and shall post a copy of such plat, together with a notice of such application for a patent, in a conspicuous place on the land or lands in such plat previous to the filing of the application for a patent, and shall file an affidavit of at least two persons that such notice has been duly posted, and shall file a certified copy of such notice, with reasonable diligence to final judgment, and shall thereupon be entitled to a patent for the land, in the manner following: The provincial secretary, or such other officer as by the Philippine government may be described as mining recorder, upon the filing of such application, plat, field-notes, notices, and affidavits, shall publish a notice that such an application has been made, once a week for the period of sixty days, in a newspaper to be by him designated as nearest to such claim in and in two newspapers published at Manila, one in the English language and one in the Spanish language, to be ordered by the chief of the Philippine insular bureau of public lands; and he shall also post such notice in his office for the same period. The claimant at the time of filing this notice shall deposit with him the sum of $500.00, which sum shall be held by him until after the expiration of the sixty days of publication, and shall be paid to the provincial secretary or such other officer as by the Philippine government may be described as mining recorder, at the expiration of thirty days after filing his claim, to commence proceedings in a court of competent jurisdiction to determine the question of the right of possession, and prosecute the same with reasonable diligence to final judgment, and to failure so to do shall be a waiver of his adverse claim. After such judgment shall have been rendered the party entitled to the possession of the claim, or any portion thereof, may, without giving further notice, file a certified copy of the judgment roll with the provincial secretary or such other officer as by the government of the Philippine Islands may be described as mining recorder, together with the certificate of the chief of the Philippine insular bureau of public lands that the requisite amount of labor has been expended or improved on the land described in such claim, and shall pay to the provincial treasurer or the collector of internal revenue of the province in which the claim is situated, as the same may be ascertained, the sum of $50.00, and shall thereupon be entitled to a patent for the land, subject to the payment of any other duty or fees required by law.
by the government of said islands may be described as mining recorder shall certify the proceedings and judgment roll to the secretary of the interior for the Philippine Islands, as in the preceding case, and patents shall issue to the several parties according to their respective rights. If in any action brought pursuant to this section title to the ground in controversy shall not be established by either party, the court shall so find, and judgment shall be entered accordingly. In such case costs shall not be allowed to either party, and the claimant shall not proceed in the office of the provincial secretary or such other officer as by the government of said islands may be described as mining recorder or be entitled to a patent for the ground in controversy until he shall have perfected his title. Nothing herein contained shall be construed to prevent the alienation of a title conveyed by a patent for a mining claim to any person whatever.

SEC. 42. That the description of mineral claims upon surveyed lands shall designate the location of the claim with reference to the lines of the public surveys, but need not conform therewith; but the surveyor general of the unsurveyed lands the chief of the Philippine insular bureau of public lands in extending the surveys shall adjust the same to the boundaries of the claims, according to the plat or description thereof, but so as in no case to interfere with or change the location of any such patented claim.

SEC. 43. That any person authorized to enter lands under this act may enter and obtain patent to lands that are chiefly valuable for building-stone under the provisions of this act relative to placer mineral claims.

SEC. 44. That no location of a placer claim shall exceed 64 hectares for any association of persons, irrespective of the number of persons composing such association, and no such location shall include more than 8 hectares for an individual claim. Such location on unsurveyed land shall conform to the laws of the United States Philippine Commission, or its successors, with reference to public surveys, and nothing in this section contained shall defeat or impair any bona fide ownership of land for agricultural purposes or authorize the sale of the improvements of any bona fide settler to any purchaser.

SEC. 45. That placer claims are located upon surveyed lands and conform to legal subdivisions no further survey or plat shall be required, and all placer mining claims located after the date of passage of this act shall conform as nearly as practicable to the Philippine system of public-land surveys and the regular subdivisions of such surveys; but where placer claims can not be formed to legal subdivisions, survey and claimant. Such location on unsurveyed land; and where by the segregation of mineral lands in any legal subdivision a quantity of agricultural land less than 16 hectares shall remain, such fractional portion of agricultural land may be entered by any party qualified by law for homestead purposes.

SEC. 46. That where such person or association in whose favor their grantors have held and worked their claims for a period equal to the time prescribed by the statute of limitations of the Philippine Islands, evidence of such possession and working of the claims for such period shall be sufficient to establish a right to a patent thereto under this act, in the absence of any adverse claim; but nothing in this act shall be deemed to impair any lien which may have attached in any way whatever prior to the issuance of a patent.

SEC. 47. That the chief of the Philippine insular bureau of public lands may appoint competent deputy mineral surveyors to survey mining claims. The expenses of the survey of vein or lode claims and of the survey of placer claims, together with the cost of publication of notices, shall be paid by the applicants, and they shall be at liberty to obtain the same at the most reasonable rates, and they shall also be at liberty to employ any such deputy mineral surveyor to make the survey. The chief of the Philippine insular bureau of public lands shall also have power to establish the maximum charges for surveys and publication of notices under this act; and in case of excessive charges for publication he may designate any newspaper published in a province where mines are situated, or in Manila, for publication of such notices and fix the rates to be charged by such paper; and to the end that the chief of the bureau of public lands may be fully informed on the subject such application shall be made to the provincial secretary, or such other officer as by the government of the Philippine Islands may be described as mining recorder, a sworn statement of all charges and fees paid by such applicant for publication and surveys, and of all fees and money paid the provincial treasurer or the collector of internal revenue, as the case may be, which statement shall be transmitted, with the other papers in the case, to the secretary of the interior for the Philippine Islands.

SEC. 48. That all affidavits required to be made under this act may be verified before any officer authorized to administer oaths within the province or military department where the claims may be situated, and all testimony and proofs may be taken before any such officer, and when duly certified by the officer taking the same, shall have the same force and effect as if taken before the proper provincial secretary or such other officer as by the government of the Philippine Islands may be described as mining recorder. In cases of contest as to the mineral or agricultural character of land the testimony and proofs may be taken as herein provided or personal notice of at least ten days to the opposing party; or if such party can not be found, then by publication at least once a week for thirty days in a newspaper to be designated by the provincial secretary or such other officer as by said government may be described as mining recorder published nearest to the location of such land and in two newspapers published in Manila, one in the English language and one in the Spanish language, to be designated by the chief of the Philippine insular bureau of public lands; and the provincial secretary or such other officer as by said government may be described as mining recorder shall require proofs that such notice has been given.

SEC. 49. That where non-mineral land not contiguous to the vein or lode is used or occupied by the proprietor of such vein or lode for mining or milling purposes, such non-adjacent surface ground may be embraced and included in an application for a patent for such vein or lode; and the same may be patented therewith, subject to the same preliminary requirements as to survey and notice as are applicable to veins or lodes;
but no location of such non-adjacent land shall exceed 2 hectares, and payment for the same must be made at the same rate as fixed by this act for the superficies of the lode. The owner of a quartz-mill or reduction-works not owning a mine in connection therewith may also receive a patent for his mill site as provided in this section.

"Sec. 49. That as a condition of sale the government of the Philippine Islands may provide rules for working, policing, and sanitation of mines, and rules concerning easements, drainage, water rights, right of way, right of government survey and inspection, and other necessary means to their complete development not inconsistent with the provisions of this act, and those conditions shall be fully expressed in the patent. The Philippine Commission or its successors are hereby further empowered to fix the bonds of deputy mineral surveyors.

"Sec. 50. That whenever by priority of possession rights to the use of water for mining, agricultural, manufacturing, or other purposes have vested and accrued the same are recognized and acknowledged by the local customs, laws and usage of the people, the possessors and owners of such vested rights shall be maintained and protected in the same, and the right of use for the construction of ditches and canals for the purpose herein aforesaid acknowledged and confirmed, but whenever any person, in the construction of any ditch or canal, injures or damages the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

"Sec. 51. That all patents granted shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights as may have been acquired under or recognized by the preceding section.

"Sec. 52. That the government of the Philippine Islands is authorized to establish land districts and provide for the appointment of the necessary officers wherever they may deem the same necessary for the public convenience, and to further provide that in districts where land offices are established proceedings required by the act of Congress shall be had before the proper officers of such land offices.

"Sec. 53. That every person above the age of twenty-one years who shall make the declaration in writing prescribed in the preceding section, may be made by legal subdivisions, which shall conform as nearly as practicable with the subdivisions of land provided for in this act, to include as near as may be the forty acres of land specified in the act. The government of the Philippine Islands is authorized to issue all needful rules and regulations for carrying into effect the provisions of this and preceding sections relating to mineral lands.

"Sec. 54. That any person or association of persons, severally qualified as above provided, who have opened and improved, or shall hereafter open and improve, any coal-mine or mines upon the public lands, and shall be in actual possession of the same, shall be entitled to a preference right of entry under the preceding section of the mines so opened and improved.

"Sec. 55. That all claims under the preceding section must be presented to the proper provincial secretary within sixty days after the date of actual possession and the commencement of improvements on the land by the filing of a declaratory statement therefor; and where the improvements shall have been made prior to the expiration of three months from the date of the passage of this act, sixty days from the expiration of such three months shall be allowed for the filing of a declaratory statement; and no sale under the provisions of this act shall be allowed until the expiration of six months from the date of the passage of this act shall be allowed under or recognized by the preceding section.

"Sec. 56. That the three preceding sections shall be held to authorize only one entry by the same person or association of persons; and no new or additional association of persons shall have taken the benefit of such sections either as an individual or as a member of any other association, shall enter or hold any other lands under the powers and purport of any number of any association which shall have taken the benefit of such section shall enter or hold any other lands under their provisions; and all persons claiming the benefit of such section shall be required to prove their respective rights and pay for the lands filed upon within one year from the time prescribed for filing their respective claims; and upon failure to file the proper notice or to pay for the land within the required period, the same shall be subject to entry by any other qualified applicant.

"Sec. 57. That in case of conflicting claims upon coal lands where the improvements shall have commenced prior to the date of the passage of this act, priority of possession and improvements, followed by proper filing and continued good faith, shall determine the preference right to purchase. And also where improvements have already been made prior to the passage of this act, division of the land claimed may be made by legal subdivisions, which shall conform as nearly as practicable with the subdivisions of land provided for in this act, to include as near as may be the forty acres of land specified in the act. The government of the Philippine Islands is authorized to issue all needful rules and regulations for carrying into effect the provisions of this and preceding sections relating to mineral lands.

"Sec. 58. That whenever it shall be made to appear to the secretary of any province or the commander of any military department in the Philippine Islands that any lands within the province are saline in character, it shall be the duty of said provincial secretary or commander, under the regulations of the government of the Philippine Islands, to take testimony in reference to such lands, to ascertain their true character, and to report the same to the secretary of the interior for the Philippine Islands; and if, upon such testimony, the secretary of the interior shall find that such lands are saline and incapable of being purchased under any of the laws relative to the public domain, then and in such case said lands shall be offered for sale at the office of the provincial secretary or other officers as by the said government may be described as mining recorder of the province or department in which the same shall be situ-
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said, as the case may be, under such regulations as the government shall adopt. Said sale shall be sold to the highest bidder, for cash, at a price of not less than $3 per hectare; and in case such lands fail to sell when so offered, then the same shall be subject to private sale at such office, for cash, at a price not less than $3 per hectare, in the same manner as other lands in the said islands are sold. All executive proclamations relating to the sales of public saline lands shall be published in only two newspapers, one printed in the English language and one in the Spanish language, at Manila, which shall be designated by the said secretary of the interior.

"SEC. 59. That no act granting lands to provinces, districts, or municipalities to aid in the construction of roads, or for other public purposes, shall be so construed as to embrace mineral lands, which, in all cases, are reserved exclusively, unless otherwise specially provided in the act or acts making the grant.

"SEC. 60. That nothing in this act shall be construed to affect the rights of any person, partnership, or corporation having a valid, perfected mining concession granted prior to April 11, 1899. The mining or the sale of said islands under the provisions of the law in force at the time they were granted, subject at all times to cancellation by reason of illegality in the procedure by which they were obtained, or for failure to comply with the conditions prescribed as requisite to their retention in the laws under which they were granted: Provided, That the owner or owners of the property or concession shall cause the corners made by its boundaries to be distinctly marked with permanent monuments within six months after this act has been promulgated in the Philippines, and that any concessions the boundaries of which are not so marked within this period shall be free and open to explorations and purchase under the provisions of this act.

"SEC. 61. That mining rights on public lands in the Philippine Islands shall, after the passage of this act, be acquired only in accordance with its provisions.

"SEC. 62. That all proceedings for the cancellation of perfected Spanish concessions shall be conducted in the courts of the Philippine Islands having jurisdiction of the subject matter, and of the parties, under the United States Philippine Commission, or its successors, shall create special tribunals for the determination of such controversies.

"AUTHORITY FOR THE PHILIPPINE ISLANDS GOVERNMENT TO PURCHASE LANDS OF RELIGIOUS ORDERS AND OTHERS AND ISSUE BONDS FOR PURCHASE PRICE.

"SEC. 63. That the government of the Philippine Islands is hereby authorized, subject to the limitations and conditions prescribed in this act, to acquire real estate for public uses by the exercise of the right of eminent domain.

"SEC. 64. That the powers hereinbefore conferred in section 63 may also be exercised in respect of any lands, easements, appurtenances, and hereditaments which on the 15th of August, 1899, were owned or held by associations, corporations, communities, religious orders, or private individuals in such large tracts or parcels and in such manner as in the opinion of the congress will best promote the peace and welfare of the people of the Philippine Islands. And for the purpose of providing funds to acquire the lands mentioned in this section said government is hereby empowered to incur indebtedness, to borrow money, and to issue, and to sell at not less than par value, in gold coin of the United States of the present standard value or the equivalent in value in money of said islands, upon such terms and conditions as it may deem best, registered or coupon bonds of said government for such amount as may be necessary, said bonds to be in denominations of $50 or any multiple thereof, bearing interest at a rate not exceeding 4½ per centum per annum, payable quarterly, and to be payable at the pleasure of said government after dates named in said bonds not less than five nor more than thirty years from the date of their issue, together with interest thereon, in gold coin of the United States of the present standard value or the equivalent in value in money of said islands; and said bonds shall be exempt from the payment of all taxes or duties of said government, or any local authority therein, or of the Government of the United States, as well as from taxation in any form by or under state, municipal, or local authority in the United States or the Philippine Islands, the proceeds of which may be realized or received from the issue and sale of said bonds shall be applied by the government of the Philippine Islands to the acquisition of the property authorized by this section, and to no other purposes.

"SEC. 65. That all lands acquired by virtue of the preceding section shall constitute a part and parcel of the property of the government of the Philippine Islands, and may be held, sold, and conveyed, or leased temporarily for a period not exceeding three years after their acquisition by said government on such terms and conditions as it may prescribe, subject to the limitations and conditions provided for in this act: Provided, That all deferred payments and the interest thereon shall be payable in the money prescribed for the payment of principal and interest of the bonds authorized to be issued in payment of said lands by the preceding section and said deferred payments shall bear interest at the rate borne by the bonds. All moneys realized or received from sales or other disposition of said lands or by reason thereof shall constitute a trust fund for the payment of principal and interest of said bonds, and also constitute a sinking-fund for the payment of said bonds at their maturity. Actual settlers and occupants at the time said lands are acquired by the government shall have the preference over all others to lease, purchase, or acquire their holdings within such reasonable time as may be determined by said government.

"MUNICIPAL BONDS FOR PUBLIC IMPROVEMENTS.

"SEC. 66. That for the purpose of providing funds to construct sewers, to furnish adequate sewer and drainage facilities, and to secure a sufficient supply of water, and to provide all kinds of municipal betterments and improvements in municipalities, the government of the Philippine Islands, under such limitations, terms, and conditions as it may prescribe, with the consent and approval of the President and the Congress of the United States, may permit any municipality of said islands to incur indebtedness, borrow money, and to issue and sell (at not less than par value, in gold coin of the United States) registered or coupon bonds in such amount and payable at such time as may be determined by the government of said islands, with the consent of the several 5 per centum per annum: Provided, That the entire indebtedness of any municipality under
this section shall not exceed 5 per centum of the assessed valuation of the property in said municipality, and any obligation in excess of such limit shall be null and void.

Sec. 67. That all municipal bonds shall be in denominations of $60, or any multiple thereof, bearing interest at a rate not exceeding 5 per centum per annum, payable quarterly, such bonds to be payable at the pleasure of the government of the Philippine Islands, after dates named in said bonds not less than five nor more than thirty years from the date of their issue, together with the interest thereon, in gold coin of the United States of the present standard value, or its equivalent in value of money of the said islands; and said bonds shall be exempt from the payment of all taxes or duties of the government of the Philippine Islands, or any local authority therein, or the Government of the United States.

Sec. 68. That all moneys which may be realized or received from the issue and sale of said bonds shall be utilized under authorization of the government of the Philippine Islands in providing the municipal improvements and betterment which increased the value and sale of said bonds, and for no other purpose.

Sec. 69. That the government of the Philippine Islands shall, by the levy and collection of taxes on the number of inhabitants in said islands, their property, or by other means, make adequate provision to meet the obligation of said bonds, and shall create a sinking-fund sufficient to retire and pay the interest thereon in accordance with the terms of issue: Provided, That if said bonds or any portion thereof shall be paid out of the funds of the government of said islands, said city shall reimburse said government for the sum thus paid, and said government is hereby empowered to collect said sum by the levy and collection of taxes on said city.

Sec. 70. That for the purpose of providing funds to construct sewers in the city of Manila and to furnish it with an adequate sewer and drainage system and supply of water the government of the Philippine Islands, with the approval of the President of the United States first had, is hereby authorized to permit the city of Manila to issue bonds not exceeding $4,000,000 lawful money of the United States, payable at such time or times as may be determined by said government, with interest thereon not to exceed 5 per centum per annum.

Sec. 71. That said coupon or registered bonds shall be in denominations of $60 or any multiple thereof, bearing interest at a rate not exceeding 5 per centum per annum, payable quarterly, such bonds to be payable at the pleasure of the government of the Philippine Islands, after dates named in said bonds not less than five nor more than thirty years from the date of their issue, together with the interest thereon in gold coin of the United States of the present standard value, or the equivalent in value in money of the said islands; and said bonds shall be exempt from the payment of all taxes or duties of the government of the said islands, or of any local authority thereof, or of the Government of the United States.

Sec. 72. That all moneys which may be realized or received from the issue and sale of said bonds shall be utilized under authorization of the government of the Philippine Islands in providing a suitable sewer and drainage system and adequate supply of water for the city of Manila and for no other purpose.

Sec. 73. That the government of the Philippine Islands shall, by the levy and collection of taxes on the city of Manila, its inhabitants and their property, or by other means, make adequate provision to meet the obligation of said bonds and shall create a sinking-fund sufficient to retire them and pay the interest thereon in accordance with the terms of issue: Provided, That if said bonds or any portion thereof shall be paid out of the funds of the government of said islands, said city shall reimburse said government for the sum thus paid, and said government is hereby empowered to collect said sum by the levy and collection of taxes on said city.

Sec. 74. That the government of the Philippine Islands may grant franchises, privileges, and concessions, including the authority to exercise the right of eminent domain for the construction and operation of works of public utility and service, and may authorize said works to be constructed and maintained over and across the public property of the United States, including streets, highways, and reservations, and over similar property of the government of said islands, and may adopt rules and regulations under which the provincial and municipal governments of the islands may grant the right to use and occupy such public property belonging to said provinces or municipalities: Provided, That no private property shall be taken for any purpose under this section without just compensation paid or tendered therefor, and that such authority to take and occupy land shall not authorize the taking, use, or occupation of any land except as is required for the actual necessary purposes for which the franchise is granted, and that no franchise, privilege, or concession shall be granted to any corporation except under the conditions that it shall be subject to amendment, alteration, or repeal by the Congress of the United States, and that lands or rights of use and occupation of lands thus granted shall revert to the government of the United States, as provided by Acts of Congress, by the terms of which they were respectively granted upon the termination of the franchises and concessions under which they were granted or upon their revocation or repeal. That all franchises or grants under this act shall forbid the issue of stock or bonds except in exchange for actual cash, or for property at a fair valuation, equal to the par value of the stock or bonds so issued; shall forbid the declaring of stock or bond dividends, and, in the case of public-service corporation, shall provide for the effective regulation of the charges thereof, for the official inspection and regulation of the books and accounts of such corporations, and for the payment of a reasonable percentage of gross earnings into the treasury of the Philippine Islands or of the province or municipality within which such franchises are granted and exercised: Provided further, That it shall be unlawful for any corporation organized under this act, or for any person, company, or corporation receiving any grant, franchise, or concession from the government of said islands, to use, employ, or contract for the labor of persons claimed or alleged to be held in involuntary servitude, or for any person, company, or corporation so violating the provisions of this act shall forfeit all charters, grants, franchises, and concessions for doing business in said islands, and in addition shall be
deemed guilty of an offense, and shall be punished by a fine of not less than $10,000.

"SEC. 75. That no corporation shall be authorized to conduct the business of buying and selling real estate or be permitted to hold or own real estate except such as may be reasonably necessary to enable it to carry out the purposes for which it is created, and every corporation authorized to engage in agriculture shall by its charter be restricted to the ownership and control of not to exceed 1,024 hectares of land; and it shall be unlawful for any member of a corporation engaged in agriculture or mining and for any corporation organized for any purpose except irrigation to be in any wise interested in any other corporation engaged in agriculture or in mining. Corporations, however, may loan funds upon real estate security and purchase real estate when necessary for the collection of loans, but they shall dispose of real estate so obtained within five years after receiving the title. Corporations not organized in the Philippine Islands, and doing business therein, shall be bound by the provisions of this section so far as they are applicable.

"COINAGE.

"SEC. 76. That the government of the Philippine Islands is hereby authorized to establish a mint at the city of Manila, in said islands, for coinage purposes, and the coins hereinafter authorized may be coined at said mint. And the said government is hereby authorized to enact laws necessary for such establishment: Provided, That no other banks of the United States and other vessels arriving from or going to foreign ports shall apply to voyages each way between the Philippine Islands and the United States and the possessions thereof, and all laws relating to the collection and protection of customs duties not inconsistent with the act of Congress of March 8, 1892, 'temporarily to provide revenue for the Philippine Islands,' shall apply in the case of vessels and goods arriving from said islands in the United States and its aforesaid possessions.

"SEC. 77. That the government of the Philippine Islands is authorized to coin, for use in said islands, a coin of the denomination of 50 centavos and of the weight of 192.4 grams, a coin of the denomination of 20 centavos and of the weight of 77.4 grams, and a coin of the denomination of 10 centavos and of the weight of 38.7 grams, and the standard of said silver coins shall be such that of 1,000 parts by weight 900 shall be of pure metal and 100 of alloy, and the alloy shall be of copper.

"SEC. 78. That the subsidiary silver coins authorized by the preceding section shall be coined under the authority of the government of the Philippine Islands in such amounts as it may determine, with the approval of the Secretary of War of the United States, from silver bullion purchased by government, and with the approval of the Secretary of War of the United States: Provided, That said government may in addition and in its discretion coin the Spanish Filipino dollars and subsidiary silver coins issued under the authority of the Spanish Government for use in said islands into the subsidiary coins provided for in the preceding section at such rate and under such regulations as it may prescribe, and the subsidiary silver coins authorized by this section shall be legal tender in said islands to the amount of $10.

"SEC. 79. That the government of the Philippine Islands is also authorized to issue minor coins of the denominations of 1 centavo, 1 centavo, and 5 centavos, and such minor coins shall be legal tender in said islands for amounts not exceeding $1. The alloy of the 5-centavo piece shall be of copper and nickel, to be composed of 3 copper and 2 nickel. The alloy of the 1-centavo and 5-centavo pieces shall be 90 per cent copper and 10 per cent tin and zinc, in such proportions as shall be determined by said government. The weight of the 5-centavo piece shall be 17.75 grains, and of the 1-centavo piece 8.35 grains, and of the 5-centavo piece 40 grains.

"SEC. 80. That for the purchase of metal for the subsidiary and minor coinage, authorized by the preceding sections, an appropriation may be made by the government of the Philippine Islands from its current funds, which shall be reimbursed from the coinage under said sections; and the gain or seigniorage arising therefrom shall be paid into the treasury of said islands.

"SEC. 81. That the subsidiary and minor coinage hereinafter authorized may be coined at the mint of the government of the Philippine Islands in Manila, or arrangements may be made by the said government with the Secretary of the Treasury of the United States for their coinage at any of the mints of the United States, at a charge covering the reasonable cost of the work.

"SEC. 82. That the subsidiary and minor coinage hereinafter authorized shall bear devices and inscriptions to be prescribed by the government of the Philippine Islands and such devices and inscriptions shall express the sovereignty of the United States, that it is a coin of the Philippine Islands, the denomination of the coin, and the year of the coinage.

"SEC. 83. That the government of the Philippine Islands shall have the power to make all necessary appropriations and all proper regulations for the redemption and reuse of worn or defective coins and for carrying out all other provisions of this act relating to coinage.

"SEC. 84. That the laws relating to entry, clearance, and manifest, laws relating to vessels and other vessels arriving from or going to foreign ports shall apply to voyages each way between the Philippine Islands and the United States and the possessions thereof, and all laws relating to the collection and protection of customs duties not inconsistent with the act of Congress of March 8, 1892, 'temporarily to provide revenue for the Philippine Islands,' shall apply in the case of vessels and goods arriving from said islands in the United States and its aforesaid possessions.

"The laws relating to seamen on foreign voyages shall apply to seamen on vessels going from the United States and its possessions aforesaid to said islands, the customs officers there being for this purpose substituted for consular officers in foreign ports.

"The provisions of chapters vi and vii, title 48, Revised Statutes, so far as now in force, and any amendments thereof, shall apply to vessels making voyages each way between the United States and its aforesaid possessions and ports in said islands; and the provisions of law relating to the public health and quarantine shall apply in the case of all vessels entering a port of the United States or its aforesaid possessions from said islands, where the customs officers at the port of departure shall perform the duties required by such law of consular officers in foreign ports.

"Section 3005, Revised Statutes, as amended, and other existing laws concerning the transit of merchandise through the United States, shall apply to merchandise arriving at any port of the United States destined for any of its insular and continental possessions, or destined from any of them to foreign countries.

"Nothing in this act shall be held to repeal or alter any part of the act of March 8, 1902, aforesaid, or to apply to Guam, Tutuila, or Manua, except that section 9 of said act entitled 'An Act to revise and amend the tariff laws of the Philippine Archipelago,' enacted by the Philippine Commission on the 17th of September, 1901,
and approved by an act entitled « An Act temporarily to provide revenues for the Philippine Islands, and for other purposes, » approved March 8, 1902, is hereby amended so as to authorize the civil governor to issue his discretion to establish the equivalent rates of the amount in circulation in said islands with the money of the United States as often as once in ten days.

"SEC. 85. That the treasury of the Philippine Islands and such banking associations in said islands with a paid-up capital of not less than $2,000,000 and chartered by the United States or any State thereof as may be designated by the Secretary of War and the Secretary of the Treasury of the United States shall be depositories of public money of the United States, subject to the provisions of existing law governing such depositories in the United States: Provided, That the Treasury of the government of said islands shall not be required to deposit bonds in the Treasury of the United States, or to give other specific securities for the safe-keeping of public money except as prescribed, in his discretion, by the Secretary of War; and Provided further, That all laws passed by the government of the Philippine Islands shall be reported to Congress, which hereby reserves the power and authority to annul the same, and the Philippine Commission is hereby directed to make annual report of all its receipts and expenditures to the Secretary of War.

"BUREAU OF INSULAR AFFAIRS.

"SEC. 87. That the Division of Insular Affairs of the War Department, organized by the Secretary of War, is hereby continued until otherwise provided, and shall hereafter be known as the Bureau of Insular Affairs of the War Department. The business assigned to said bureau shall embrace all matters pertaining to civil government in the island possessions of the United States subject to the jurisdiction of the War Department; and the Secretary of War is hereby authorized to detail an officer of the army whom he may consider especially well qualified, to act under the authority of the Secretary of War as the chief of said bureau; and said officer while acting under said detail shall have the rank, pay, and allowances of a colonel.

"SEC. 88. That all acts and parts of acts inconsistent with this act are hereby repealed."
rule that is presented here this morning that I shall not offer any opposition to it. I believe there are other matters that should have been considered at this time, and especially those relating to the maintenance of tariff duties on sugar and the reduction of duties on iron and steel. But after consultation with the members who were in sympathy with me on this proposition I find the sentiment is that nothing should be done that would in any way hazard the passage of the war-revenue repeal bill; that they believe it to be their duty to their constituents to vote for this repeal and not jeopardize its passage by presenting other legislation in the shape of amendments; and further, that Congress is, under moral obligation to pass this bill at the earliest date possible and relieve the country from this burdensome tax. For these reasons, Mr. Speaker, I shall vote for the rule; but I wish to say at this time that I shall take the first opportunity that presents itself after the passage of this bill to press for consideration House bill 9636, amending the iron and steel schedule.

Mr. Richardson, of Tennessee, challenged Republicans in favor of a modification of tariff rates to make their opinion effective by voting against the special rule.

Now, if you want to afford your constituents some relief, if you want an opportunity to give your people a chance to have relief from high taxation on any one of the 4,000 articles now upon the tariff schedule, which are paying a tax of from 50 to 100 and even 150 per cent, this is the opportunity. You gentlemen will go back to your people and some of you will tell them that you would not offer a relief measure. I wish to tell them you could have done so by voting down this rule. You are willing to vote to take all the tax off of inheritances under this bill. You are willing to take all of the tax off of 'bucket-shops.' You are willing to take the tax off of corporations which are now taxed, which you do in this bill, and all the other war-taxes, including tax on beer, tea, tobacco, etc., but you leave the tariff, averaging more than 50 per cent, on over 4,000 articles, many of them of prime necessity to the people of this country. You have an opportunity now to give them some relief; but instead of voting against the rule, instead of speaking against the rule, which you refuse to do, you come by your vote and told down the rule, and so tie your hands that you can not offer amendments reducing taxes, etc., and have them considered. Then you purpose to go home to your people, who are crying for relief, with the statement that the House Representatives tied our hands and would not permit us to offer an amendment.

Now, gentlemen on the other side, there is no escape from the result of your vote here. If you desire to offer any amendments to any one of the tariff schedules, reducing taxes on any one of the 4,000 articles now taxed, you have the opportunity by voting down this rule. You bring 21 of your 200 members on that side of the House against this rule, and we will vote it down. We will give you 150 or 160 votes from this side of the House. We will vote down the rule; and then what would be the situation? We would go into the committee of the whole under the five-minute rule, take the bill from Wisconsin, and tender your relief measure.

"Other gentlemen, on both sides of the House, who have relief measures in which their people are vitally concerned, could tender them, and after reasonable debate we would have a vote upon them. But, instead of that, you come up voluntarily and surrender your prerogatives to represent the 180,000 or 200,000 free people whom you each represent, and tie your own hands so that you can offer no measure of relief and no amendment of any kind?"

Mr. Cannon, of Illinois, put the case for the Republican majority as follows: "Mr. Speaker, I recollect well when the legislation was enacted which the House of Representatives will trust, so far as it can, in the next two days repeal. War had been declared with Spain. It was necessary to have additional revenues collected from the people. The Republican party, then in power as now in this House, under the leadership of the late distinguished representative from Maine, Mr. Dingley, passed the law which we now propose to repeal, with certain statements and pledges. One was that it was apparent that the enactment was necessary, and the other, in which we all on the Republican side participated by vote, and many by voice, was that when the war closed and these revenues were no longer necessary the Republican party, if in power, would see to it that they were repealed.

"I recollect quite well the debates that occurred. On the other side of the House there were various propositions. The most statesmanlike of all was that we should pay the expenses of that war by coining the silver bullion in the Treasury, etc., which when the vote came, in the face of denunciations on the other side of the House that we were enacting that legislation with a high hand and that the House was lowering its dignity, the Republican party passed a bill, and, with a few honorable exceptions, the gentlemen on the other side of the Chamber voted 'no.'

"Now, those revenues are no longer necessary; and a party or administration that collects from its citizens more than enough to carry on the Government is derelict, and if they should continue to do so they ought to and would lose power.

"Again, unnecessary revenues in the Treasury and coming into the Treasury are but a prize, which, I started to an opportunity to give them some relief; but instead of voting against the rule, instead of speaking against the rule, which you refuse to do, you come by your vote and told down the rule, and so tie your hands that you can not offer amendments, reducing taxes, etc., and have them considered. Then you purpose to go home to your people, who are crying for relief, with the statement that the House of Representatives tied our hands and would not permit us to offer an amendment.

But, instead of that, you come up voluntarily and surrender your prerogatives to represent the 180,000 or 200,000 free people whom you each represent, and tie your own hands so that you can offer no measure of relief and no amendment of any kind?"

The resolution embodying the special rule was carried by a vote of 158 to 121; and Mr. Richardson proposed that the vote be taken, by unanimous consent, on the amendment and passage of the bill as recommended by the Committee on Ways and Means, since it would be folly to spend a day in committee of the whole, considering a measure to which no amendment could be offered. And so the bill was passed.

March 21, it was amended and passed by the Senate. The main point in the amendments was the exclusion of the tax on bucket-shop transactions from the act of repeal. The House non-concurred in the Senate amendments, and after conference a report was made in which the Senate receded from the most important amendment.
CONGRESS. (Repeal of War-Revenue Taxation.)

The measure was approved by the President April 12, 1902, in the following form:

"An Act to provide ways and means to meet war expenditures, and for other purposes, approved March 2, 1901, entitled 'An Act to amend an act entitled 'An Act to provide ways and means to meet war expenditures, and for other purposes, approved June 13, 1898, as amended by the act of March 2, 1901, entitled 'An Act to provide ways and means to meet war expenditures, and for other purposes, approved June 13, 1898, and to reduce taxation thereunder,' be, and hereby, further amended so as to read as follows:

"Section 1. That there shall be paid on all beer, lager-beer, ale, porter, and other similar fermented liquor, brewed or manufactured and sold, or stored in warehouse, or removed for consumption or sale, within the United States, by whatever name such liquors may be called, in lieu of the tax now imposed by law, a tax of $1 for every barrel containing not more than 31 gallons; and at a like rate for any other quantity or for any fractional part of a barrel, as authorized and defined by section 3339 of the Revised Statutes of the United States: Provided, That in lieu of or in addition to the present requirements of law in respect to all stamps used for denoting the tax upon fermented liquors or other taxes may, in the discretion of the Commissioner of Internal Revenue, be canceled by perforations to be made in such manner as shall be prescribed by the Commissioner, by regulations, prescribe.

"Section 2. That section 2 of said act of June 13, 1898, and all amendments thereof, are hereby repealed.

"Section 3. That section 3 of said act and amendments thereof be amended to read as follows:

"Section 3. That upon tobacco and snuff manufactured and sold, or removed for consumption or use, there shall be levied and collected, in lieu of the tax now imposed by law, the following taxes:

"On snuff, manufactured of tobacco or any substitute for tobacco, ground, dry, damp, pickled, scented, or otherwise, of all descriptions, when prepared for use, a tax of 6 cents per pound. And snuff-drawer, when sold, or removed for use or consumption, prepared by hand, or by machinery, of every description; on tobacco twisted by hand or reduced into a condition to be consumed, or in any manner other than the ordinary mode of drying and curing, prepared for sale or consumption, even if prepared without the use of any machine or instrument, and without being pressed or sweetened; and on all fine-cut shorts and refuse scraps, clippings, cuttings, and sweepings of tobacco, a tax of 6 cents per pound.

"That the internal-revenue tax on cigars or cigarettes weighing more than 3 pounds per 1,000 shall be $3 per 1,000; and the tax on cigars weighing not more than 3 pounds per 1,000 shall be 18 cents per pound, and on cigarettes weighing not more than 3 pounds per 1,000 and of a wholesale value or price of not more than $2 per 1,000 shall be 18 cents per pound; and the tax on cigarettes weighing not more than 3 pounds per 1,000 and of a wholesale value or price of more than $2 per 1,000 shall be 36 cents per pound; and all such cigars and cigarettes weighing not more than 3 pounds per 1,000 shall, for purposes of taxation, be held and considered as weighing 3 pounds.

"In addition to the packages of smoking tobacco and snuff now authorized by law there shall be packages of 1 1/4 ounce, 2 ounces, 2 1/2 ounces, 3 ounces, 3 1/2 ounces, and 4 ounces; and there may by 1 ounce package containing 1 ounce of smoking tobacco.

"Section 4. That on all original and unbroken factory packages of smoking and manufactured tobacco and snuff sold by manufacturers or dealers on July 1, 1902, upon which there has been paid a higher tax than that provided for in the preceding section of this act, there shall be allowed a drawback or rebate equal to the full amount of the difference between such higher tax and the tax imposed by this act, after making the proper allowance for discounts and rebates heretofore authorized, but the same shall not apply in any case where the claim has not been presented within sixty days after July 1, 1902; and no claim shall be allowed or drawback paid for a less amount than $10. It shall be the duty of the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, to adopt such rules and regulations and to prescribe and furnish such blanks and forms as may be necessary to carry this section into effect.

"Section 5. That section 4 of the act of June 13, 1898, is hereby repealed.

"Section 6. That section 5 of the act of June 13, 1898, as amended to read as follows:

"Section 5. That until appropriate stamps are prepared and furnished, the stamps heretofore used to denote the rate of the internal revenue tax on fermented liquors, tobacco, and snuff may be stamped or imprinted with a suitable device to denote the new rate of tax, and shall be affixed to all packages containing such articles on which the tax imposed by this act is paid. And any person having possession of unaffixed stamps heretofore issued for the payment of the tax upon fermented liquors, tobacco, and snuff shall present the same to the collector of the district, who shall receive them at the price paid for such stamps by the purchasers and issue in lieu thereof of new or imprinted stamps at the rate provided by this act.

"Section 7. That section 4 of said act of March 2, 1901, and sections 6, 12, 18, 20, 21, 22, 23, 24, 25, and 26 of Schedule A, Title 4, of the act of June 13, 1898, and all amendments of said sections and schedules be, and the same are hereby repealed.

"Section 8. That all taxes or duties imposed by section 29 of the act of June 13, 1898, and amendments thereof, prior to the taking effect of this act, shall be subject, as to lien, charge, collection, and otherwise, to the provisions of section 30 of said act of June 13, 1898, and amendments thereof, which are hereby continued in force, as follows:

"Section 30. That the tax or duty aforesaid shall be due and payable in one year after the death of the testator and shall be a lien and charge upon the property of every person who may die as aforesaid for twenty years, or until the same shall, within that period, be fully paid to and discharged by the United States; and every executor, administrator, or trustee having in charge or trust any legacy or distributive share, as aforesaid, shall give notice thereof, in writing, to the collector or deputy collector of the district where the deceased grantor or bargainer last resided, or if within thirty days after his death, and all such charge of such trust, and every executor, administrator, or trustee, before payment and distribution to the legatees, or any parties entitled to the beneficial interest therein, shall pay to the collector or deputy collector of the district of which
the deceased person was a resident, or in which
the property was located in case of non-residents,
the amount of the duty or tax assessed upon such
legacy or distributive share, and shall also make
and render to the said collector or deputy coll-
lector a schedule, list, or statement, in duplicate,
of the amount of such legacy or distributive
share, together with the amount of duty which
has accrued, or shall accrue, thereon, verified by
his oath or affirmation, to be administered and
certified thereon by some magistrate or officer
having lawful power to administer such oaths,
in such form and manner as may be prescribed
by the Commissioner of Internal Revenue, which
schedule, list, or statement shall contain the
names of each and every person entitled to any
benefit or share; and upon such proof of such pro-
delivery of such schedule, list, or statement said
collector or deputy collector shall grant to such
person paying such duty or tax a receipt or rec
recognition of the laws of such state or territory,
commonly used for baking purposes: Provided,
That the product resulting from the grind-
ing or mixing together of wheat, or
wheat-flour, as the principal constituent in quan-
tity, with any other grain, or the product of any
other grain, or of a mixture of such grains,
and not the product of any grain, as is
commonly used for baking purposes: Provided,
That when the product resulting from the grind-
ing or mixing together of wheat, or
wheat-flour, as the principal constituent in quan-
tity, with any other grain, or the product of any
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tity, with any other grain, or the product of any
other grain, or of a mixture of such grains,
and not the product of any grain, as is
commonly used for baking purposes: Provided,
is there the slightest probability of an overproduction of small grains as a result of the successful operation of the project.

"First, the cost is limited to the proceeds from the sale and disposal of public lands in the 13 States and Territories named in the bill. This would involve a sum aggregating, perhaps, $2,500,000 per annum, according to official reports on the present income from this source. It is provided in the bill that the cost of construction of each irrigation project shall be paid by the persons directly benefited. Thus the money expended would constantly be recouped or repaid to the reclamation fund, making the system automatic and self-sustaining.

"Second, as to the fear of overproduction of farm-products, there is no ground whatever for alarm. While it is true that there are in the great West about 800,000,000 acres of lands which might be irrigated, the essential fact is that there is not sufficient water available, and more will be, to reclaim more than 10 per cent. of the whole area, or about 80,000,000 acres. It should not be taken for granted, however, that the whole of this area would be irrigated from Government works. The irrigation experts of the Geological Survey, basing their calculations upon the most thorough investigations in the field, give it as their opinion that 20,000,000 acres would be the limit of land irrigated from waters conserved by Government enterprises, but that this would serve as a nucleus about which private effort would reclaim an equal amount, or 40,000,000 acres in all. On this the most interesting and instructive letter from the director of the Geological Survey to be found in the report accompanying this bill:

"The surveys and examinations made in different parts of the arid region show that the cost of water conservation ranges from $5 per acre in the most favorable cases up to $20 or $25 per acre where the conditions are less favorable. Moreover, whereas $25 per acre may be prohibitory in Montana for raising alfalfa, it is reasonable in Arizona, where high-class products are produced. An arbitrary statement, therefore, of the cost per acre reclaimed bears little relation to the feasibility of the enterprise.

"The cost of reclamation also depends upon the land itself, which is always a variable. For example, the irrigation of 10,000 acres may cost only $10 per acre, but the irrigation of 15,000 additional acres may cost $15 per acre. Whereas in the aggregate the irrigation of 25,000 acres may be the most profitable in such a case to irrigate the smaller acreage; but as a matter of larger benefits to the people, the creation of new homes, it might be wiser to advocate the more favorable system, under the general principle that in developing the resources of the country the larger benefits consistent with economy should be sought, and not merely the cheapest or the immediately profitable.

"The reclamation of 20,000,000 acres of arid land by means of irrigation, would, on an average, cost probably from $10 to $15 per acre, and the ultimate average value would be three times as much.

"It has been variously estimated that there is available water for from 60,000,000 to 100,000,000 acres. It is not necessary for the Government to conserve all of this water. If the Government should build the great dams and divert the large rivers, the cost would be able to put the water upon the greater part of the land. It is estimated that if the Government should conserve water for 20,000,000 acres individuals be able to obtain water for the remaining reclaimable land.

"The limit of 20,000,000 acres has been set for Government work as being a liberal allowance when consideration is had of the projects which are of sufficient size or importance to justify construction by the Government. It is assumed that it will not be the intention of Congress to irrigate the land, but merely to build some of the larger works. The possibilities of construction of these are limited by the character of the country. Taking the vast extent of the arid region as a whole, and the number of projects called to public attention, there are comparatively few of these which would justify more than a survey and careful examination. The facts developed by impartial work conclusively prove that for some of these projects there is no reasonable demand for Government work.

"If the Government provides the larger storage works and regulates the rivers, it will then be possible for private enterprise to again take up the work of bringing water to the land.

"From the experience already acquired in the development of the arid regions, it may be assumed that what Government work could do directly in 1 acre there are ultimately brought in use 2 or 3 acres through the possibility of taking advantage of floods, through the use of seepage, through pumping-plants, and by various other devices. In short, if the Government, by means of large storage-works, or by taking water from great rivers, should provide water directly, and 2 or 3 acres otherwise would not be irrigated, this act would render possible the gradual utilization of the greater part of the remainder through construction of smaller individual systems.

"In the present state of engineering science, and at existing values of land, it will not be possible to now utilize all the waste waters within practical limits of expense. The influence of new inventions, cheaper appliances, and the increased demand for land make it impossible to place any definite limits upon the development.

"At an estimated average of $15 per acre for construction of works, the reclamation and settlement of this 20,000,000 acres would bring to the fund the total sum of $300,000,000, not from the Treasury of the United States, but from the lands themselves. Now, it is unreasonable to suppose that the whole of this 20,000,000 acres would be reclaimed in one or ten, or even in twenty years. I might be found more profitable in such a case to irrigate the smaller acreage; but as a matter of larger benefits to the people, the creation of new homes, it might be wiser to advocate the more favorable system, under the general principle that in developing the resources of the country the larger benefits consistent with economy should be sought, and not merely the cheapest or the immediately profitable.

"The reclamation of 20,000,000 acres of arid land by means of irrigation, would, on an average, cost probably from $10 to $15 per acre, and the ultimate average value would be three times as much.
In opposing the adoption of the rule Mr. Robi
son, of Indiana, argued against the policy of the
measure.

Mr. Speaker, to a casual observer of legisla
tion and to those who have only casually looked
into the important questions involved it may
seem that two or three days' time would be
ample for the discussion of the features presented
by this bill. But, involving, as it does in one
form or another, nearly all the principles of gov
ernment for which we have stood, involving all
the questions of change in the administration of
the public lands, involving the abdication by the
House of Representatives of its powers over ap
propriations, involving the constitutional ques
tions of State and national powers, and involving
home rule, for State rule is home rule, for which
this side of the House for a century has stood,
two days' time for the discussion of these ques
tions is not ample to present them to the House of
Representatives. It involves the whole field of
appropriation, economy in expenditure, wasteful
extravagance, special and political influence, jobs
and dead political and financial power in the
public domain along untied and experi
mental paths.

"I do not mean that irrigation is an experi
ment, for it has been successfully and profitably
employed by State and private enterprise for
ages. But to the Government it is new, experi
mental, and dangerous.

This change involves the abdication by Cong
ress of its rights and duties to appropriate
money derived from taxation, money derived from
the sale of land owned by all the people, and
it is a surrender of these rights of the people
and this prerogative of Congress to a Federal
officer in the expenditure of a mountain of money,
the cost of which irrigation projects is vari
ously estimated by experts at the lowest,$300,000,000, to the highest, $600,000,000, being
the reclamation of 60,000,000 acres of irrigable
land at from $5 to $10 an acre on the average.

"While this estimate of 60,000,000 acres of
irrigable land is made, there are yet 54,000,000
in the arid regions, and we may confidently as
sume, in the light of all past experiences, that
the efforts of experts and officers in charge will
not exhaust the water, and the flood and snow waters are
no more. Cum grano salis is a good rule in passing
on preliminary estimates of experts when their
hearts are set on a project.

"I congratulate the gentlemen of the arid re
gions, who have a special interest not common
to the whole country, on securing consideration
for this measure of interest in their districts and
States, but trouble-some and dangerous to every
other section of the country.

"That it will affect them advantageously and
ruinously affect all the rest of us I firmly be
lieve. That is the reason it has been made plain by a
reading of the bill and the majority and minority
reports. I can not speak in unkindness, but in
praise, of Representatives of the States whose
states are not flooded away in the flood, and losing
their luster, and preparing to join the
Milky Way, but my constituency can not
contribute to its own downfall to rescue them from the
grave snare of nationalizing of railroad enter
tprises by the Government. I凫 the same rights that Representatives always exercise
on this floor, to protect my people as I have the
understanding to perceive and the power to exe
cute. An attempt has been made, unjustly and
inordinately, to control the Democratic congress
ional committee and to divert it into an unwar
anted and dangerous path, and culminated a
brief time ago in a minority acting on some sort of
an irrigation resolution.

"This new scheme involves the complicated,
complex, litigious, and dangerous questions of
condemnation of private property in a State ju
risdiction by a Federal officer, and which power
and property so condemned is to be used in and
for another State to irrigate public land not only,
but private land as well. To illustrate: Nevada
must go to California and invoke all the compli
cated machinery of law—must wade through the
perplexing problems of condemnation and inter
state rights—or get no water, and this is rendered
still more difficult by the invoking of the law
within a State jurisdiction by a Federal officer for
uses not wholly within the State and not exclu
sively concerning United States land.

"Such a conflict and litigation would arise
like unto that which might come were the dead
to arise and attempt to trace their ancient pos
sessions. This scheme involves the purchase
without condemnation by a United States officer
from the public-land fund belonging to all the
people, at exorbitant figures, as it must be when
the United States is the purchaser in a State
jurisdiction, of private property for the uses and
purposes I have just named.

"It involves the United States Government in
the execution of an enterprise and which will
cluster, like banqueteers at a feast, those patriotic
American citizens, with too many of which we
unfortunately are cursed, who are always ready
to encourage as they are by the Government,
however stupendous, because there is something
in it for themselves.

"It involves the robbery of peoples of self-gov
ernment in States, and while some speak for
them, saying that American citizens will abjectly
submit to a surrender of their sovereignty to re
ceive these gifts of the people's lands, and submit
to be governed 2,000 and 3,000 miles away, I be
lieve that Representatives of other States
should save this misguided people from their
friends and at once protect the interest of their
own States, their own constituents.

"It is charged that the land-grant railroads
are the principal promoters of this legislation.
This is not met with a disclaimer, but by the
question, 'Suppose of heaven is it, my head
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ment in the employment of its machinery of gov-
ernment to force values and utility in land by a
stupendous outlay to control the elements by
conquering nature's course, thereby exacting gov-
ernment powers in fields that should be exploited
and will be exploited by State and private enter-
prises as fast and as far as and prudently as the
needs of the people and localities may require.

It is aimed to deter the slow but steady tide of
immigration now setting in from the North to
the rich mining-fields of Tennessee, Alabama, and
the South; to check those who, from my State and
others, go South to find your sweet Southern
hospitality and reach your blooming fields, and,
mingling with you, give a force for the future
that no arid region irrigated in the world can
compare with the results of this combination,
and no States can rank your Southern States in
the industrial development thereby produced."

Several able speeches were made for and
against the bill, its advocates dwelling on the
necessity of controlling and guiding our rivers
and streams, and the advantage of developing
vast tracts of land now worthless, and its oppo-
ents insisting on the unfairness of the measure,
the waste and misappropriation of the lands of
the task undertaken and those indirectly in-
volved, and the lack of constitutional authority.

The vote on the passage of the measure was
146 years to 55 nays, not present 18, not vot-
ing 132.

The bill was approved by the President June
17, 1902; and the text of it is as follows:

"The Senate and House of
Representatives of the United States of America
in Congress assembled, That all moneys received
from the sale and disposal of public lands in
Arizona, California, Colorado, Idaho, Kansas,
Montana, Nebraska, Nevada, New Mexico, North
Dakota, Oklahoma, Oregon, South Dakota, Utah,
Washington, and Wyoming, beginning with the
fiscal year ending June 30, 1901, including the
surplus of fees and commissions in excess of al-
lowances to registers and receivers, and except-
ing the 5 per centum of the proceeds of the sales
of the public lands in the several States set aside
by law for educational and other purposes, shall
be, and the same are hereby, reserved, set aside,
and appropriated as a special fund in the Trea-
ury under the name of the coastation fund, to
be used in the examination and survey for and
the construction and maintenance of irrigation
works for the storage, diversion, and develop-
ment of waters, including artesian wells, and to report to Con-
gress at the beginning of each regular session as
to the results of such examinations and surveys,
giving estimates of cost of all contemplated
works, the quantity and location of the lands
which can be irrigated therefrom, and all facts
relative to the practicability of each irrigation
project; also the cost of works in process of con-
struction as well as of those which have been
completed.

"SEC. 3. That the Secretary of the Interior
shall, before giving the public notice provided
for in section 4 of this act, withdraw from public
entry the lands required for any irrigation works
contemplated under the provisions of this act,
and shall restore to public entry any of the
lands so withdrawn when, in his judgment, such
lands are not required for the purposes of this
act; and the Secretary of the Interior is hereby
authorized, at or immediately prior to the time
of beginning the surveys for any contemplated
irrigation works, to withdraw from entry, ex-
cept under the homestead laws, any public lands
believed to be susceptible of irrigation from said
works: Provided That the entries made under the homestead
laws within areas so withdrawn during such withdrawal shall
be subject to all the provisions, limitations, charges, and condi-
tions of this act; that said sur-
veys shall be prosecuted diligently to completion,
and upon the completion thereof, and of the nec-

essary maps, plans, and estimates of cost, the
Secretary of the Interior shall determine whether
or not said project is practicable and advisable,
and if determined to be impracticable or unavis-
able he shall thereupon restore said lands to entry;
that public lands which it is proposed to irrigate
by means of any contemplated works shall be
subject to entry only under the provisions of the
homestead laws in tracts of not less than 40 nor
more than 160 acres, and shall be subject to the
limitations, charges, terms, and conditions herein
provided: Provided, That the commutation pro-
visions of the homestead laws shall not apply to
entries made under the provisions of this act:

"SEC. 4. That upon the determination by the
Secretary of the Interior that any irrigation pro-
ject is practicable, he may cause to be let con-
tracts for the construction of the said works in
portions or sections as it may be practicable to
construct and complete as parts of the whole
project, providing the necessary funds for such
portions or sections of the construction out of the
reclamation fund, and thereupon he shall give public
notice of the lands irrigable under such project,
and limit of area per entry, which limit shall rep-
resent the acreage which, in the opinion of the
Secretary, may be reasonably required for the
support of a family upon the lands in question;
also of the charges which shall be made per acre
upon said entries, and upon lands in private
ownership which may be irrigated by the waters
of the said irrigation project, and the number of
annual instalments, not exceeding 10, in which
such charges shall be paid and the time when
such payments shall commence. The said
charges shall be determined with a view of re-
turning to the reclamation fund the estimated
cost of construction of the project, and shall be
apportioned equitably: Provided. That in all con-
struction work eight hours shall constitute a
day's work, and no Mongolian labor shall be em-
ployed thereon.

"SEC. 5. That the entryman upon lands to be
irrigated by such works shall, in addition to compliance with the homestead laws, reclaim at
least one-half of the total irrigable area of his entry for agricultural purposes, and before receiving patent for the lands covered by his entry shall pay to the Government the charges apportioned against such tract, as provided in section thirty-six.

4. No right to the use of water for land in private ownership shall be sold for a tract exceeding 100 acres to any one landowner, and no such right shall be mortgaged or assigned unless he be an actual bona fide resident on such land, or occupant thereof residing in the neighborhood of said land, and no such right shall permanently attach until such payments therefor are made. The annual installments shall be paid to the receiver of the local land-office of the district in which the land is situated, and a failure to make the two payments when due shall render the entry subject to cancellation, with the forfeiture of all rights under this act, as well as of any moneys already paid thereon. All moneys received from the sale of water shall be paid into the reclamation fund. Registers and receivers shall be allowed the usual commissions on all moneys paid for lands entered under this act.

Sec. 8. That the Secretary of the Interior is hereby authorized to use the reclamation fund for the operation and maintenance of all reservoirs and irrigation works constructed under the provisions of this act. Provided, That the Secretary of the Interior is hereby authorized to acquire the same for the United States by purchase or by condemnation under judicial process, and to pay for such land as may be needed for that purpose, and it shall be the duty of the Attorney-General of the United States upon every application of the Secretary of the Interior, under the provisions of this act, to institute a bill to be commenced for condemnation within thirty days from the receipt of the application at the Department of Justice.

Sec. 9. That in any way interfere with the laws of any State or Territory relating to the control, appropriation, and distribution of water shall be construed as being in violation of the provisions of this act, and nothing herein shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof. Provided, The right to the use of water acquired under the provisions of this act shall be appurtenant to the land irrigated, and beneficial use shall be the basis, the measure, and the limit of the right.
will meet the approval of the members of the House.

"Then came the next question, Mr. Chairman, Should the exclusion of the Chinese be extended to the colonial possessions? Now, the committee can see in one moment that the conditions existing in, for instance, the Philippine Islands, are totally different from the conditions existing in the United States. Here we have a large body of intelligent, educated, industrious laborers, and we owe it to them that they are not subjected to any unfair competition from men brought here who live on a different scale, who are willing to work for less price, who are content to live on a lower degree of comfort and civilization; but the members of the committee can see that those conditions do not exist in our colonial possessions.

"There is in the Philippine Islands, for instance, no body of educated, industrious, intelligent laborers, and the question was, What is the best thing for the interests of the Philippine Islands? And, Mr. Chairman, that question is by no means as free from doubt as is the question of the introduction of Chinese laborers into this country.

But was it beyond the power of Mr. Chairman, and is it the doctrine, it is the principle, of the Republican party—of, I think, all members of Congress, regardless of party—to do for the Filipinos what within reasonable means they themselves ask should be done. The committee was convinced that the desire of the Filipinos themselves was that they should not be subjected to the further competition of Chinese labor; that they were not ready to compete with them, and certainly they are not, and for that reason the committee has reported, by the bill before this committee of the whole, that Chinese laborers be excluded from the colonial possessions of the United States upon the same terms and in the same manner that they are excluded from the mainland of the United States.

"Now, Mr. Chairman, a word or two more about some provisions of detail in this bill that I wish to explain very briefly to the committee. The chairman of the Committee on Foreign Affairs said that we have taken in its general outline the Kahn bill, which was introduced in behalf of the members from California. The question of Chinese exclusion is more important in California than in any other part of the country, and it was our endeavor in every way to carry out the desire of the California delegation to make the law as stringent as possible. It cannot be denied that Chinese laborers should be excluded, but should furnish the means and the appliances and the requirements for making that exclusion effectual, which should check the fraudulent introduction of Chinese into this country.

"There were, however, two or three questions of detail in which the committee differed from some provisions of the Kahn bill, which I desire to submit to the judgment of the committee of the whole. By your judgment we will be guided. The Committee on Foreign Affairs had but one desire, namely, to have a bill which would be most effective, most just and most wise, to carry out the principle of Chinese exclusion, but on questions of detail we all have our judgment. Now, there are substantially three questions which will be very briefly mentioned of the committee. The first was this: The bill provides that the Chinese shall be excluded from the Philippine Islands.

"This bill as it was introduced—not the committee bill—provided that the Treasury Department should appoint officials who should go to the Philippine Islands, who should there make a registration of all Chinese in the Philippine Islands or any other foreign possession, who should carry out the enforcement of this law in reference to Chinese landing and the preventing of their landing. In reference to the removal of Chinese from one possession to another, Mr. Chairman, we did not regard that provision as conducive, and I feel confident that the committee will agree with us. What would be the necessary result? Why, Mr. Chairman, it would take 10,000 employees of the Treasury Department. Ten thousand employees would have to be shipped from San Francisco to the colonial possessions, to the foreign possessions of this country, to take charge of making that registration, to take charge of that detail.

"Now, what has the Committee on Foreign Affairs done? The Government has appointed a Philippine Commission, thoroughly familiar with all local questions. Gov. Taft, the head of that commission, appeared before the Committee on Foreign Affairs and gave his evidence. He is in thorough sympathy with the exclusion of the Chinese. What he said before the committee had, I think, more weight in leading the committee to the conclusion that the exclusion of the Chinese from the Philippine Islands was judicious. We have reported in our bill a brief provision, embracing half a dozen lines, in which we propose to authorize and direct the Philippine Commission to take such measures as may be necessary to carry out the provisions of the bill, and to the exclusion of the Chinese from the islands and to attend to registration or whatever else may be requisite with reference to the regulation of this subject."

Another point of difference was on the proposition of the original bill, that the Treasury Department keep a record of Chinese children born in the United States or its dominions. The committee, in view of the fact that a permanent Census Bureau has been created, regarded this provision as needless. A third point of difference was in regard to the employment of Chinese seamen. A minority report recommended the provision of the original bill, forbidding their employment on American ships, but the majority report favored a provision forbidding their landing at an American port, no matter on what ship they sailed. Mr. Perkins said:

"First, I should say, gentlemen, that among the restrictions against the unlawful landing of Chinese we have not only said that a ship comes alongside any wharf or dock of the United States upon which Chinese coolies who are not to be landed, the steamer must give bond in the penal sum of $2,000 for every Chinaman on board, to see to it that such Chinamen whom they have on board do not get on board— that the ship that brings them carries them away. If, certainly the provision is stringent enough to keep these ships out of American ports—men employed on the ships—from allowing them to land. If a ship has Chinamen on board who are to be landed, there must be the certificates and the necessary paper work that they are Chinamen who are entitled to land; but this provision refers to ships having Chinamen on board who are not to land. There must be the certificates and the necessary paper work that they are Chinamen who are entitled to land; but this provision refers to ships having Chinamen on board who are not to be landed. There must be the certificates and the necessary paper work that such Chinamen are not to be landed. All ships, when they come to our harbors, must submit to this law. As so you see, gentlemen, these Chinamen employed on the ships that
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... on the great seas are not going to get into this country. We have made stringent provisions that they shall not come in. But the bill as drawn, as submitted to the committee, contains this provision, that no ship carrying the American flag, no ship admitted to American registry, shall employ on it any Chinese. We struck out this provision, because, as the committee can see, it was no more needed for the protection of American laboring men living in America, and it has no more to do with them than it has with British laboring men living in England, not one bit."

Mr. Clark, of Missouri, advocated the more stringent policy. He said:

"When we annexed the Sandwich Islands we took twenty odd thousand Chinese. When we acquired the Philippines we took in a number of Chinese variously stated at from 200,000 to 1,750,000. Consequently, for the first time, the Congress is in a position, with an exceedingly bold, candid, and clairvoyant policy of holding our newly acquired provinces, colonies, or insular possessions—whichever or whatever you please to call them—subject to the laborers to death dealing competition with the cheap labor of the Orient."

"The truth is that it is high time the laborers of this country were waking up to the fact that their competition, not only with European cheap labor, but from unrestricted competition with the labor of Asia, is for us to to once and forever cut loose from the Philippines Islands. It is their only salvation. Suppose the Supreme Court of the United States decides that the subjects of Spain residing in the islands annexed became American citizens by the act of annexation, then what? The probability in the case is that Congress has no power to restrict the free locomotion of an American citizen into any part of the territory over which the Stars and Stripes now fly, and be no more experience with Chinese than the rest of our people, they understand the Chinese character better and are better fitted to know what legislation is necessary to solve the numerous and difficult problems connected with Chinese immigration."

"Individually, I go further and say that the Chinese question is the race question of the Pacific coast. There is no use dodging it. The Chinese problem is to the Pacific coast what the negro problem is to the Southern States, except..."
that the race question of the South is entirely a
domestic question, while the race question on the
Pacific is complicated with international ques-
tions. I believe, moreover, that the white people of the South are the most capable of dealing with their race question, just as the white people of the Pacific coast are most competent to deal with their Chinese race question.

Upon these race questions I unhesitatingly take my position with the white people of the South and the white people of the Pacific coast.

The substitute reported by the Democratic minority is substantially the bill desired by our Pacific coast citizens and by the laborers of the whole country, which is a very persuasive reason why it should be adopted by the House.

The House passed the bill without a division
April 7, after adopting certain amendments, which it was claimed by Mr. Clark, embodied everything for which the minority contended, and which, according to Mr. Hit, of Illinois, made the measure identical with that reported by a
Senate committee as a modification of the original or Kahn bill.

In the course of the debate in both houses it was commonly conceded that the policy of ex-
clusion was to be continued; and that the only
matter open to discussion was the method of ex-
clusion. A more generous course was advocated at times. Mr. Gallinger, of New Hampshire, said in the Senate:

Mr. President, to my mind this bill is uncalled for, unnecessary, unAmerican, and . It is
harsh in its provisions, unjust in its definitions, and clearly violative of solemn treaty stipula-
tions. It is the kind of legislation that prejudice engenders and unhinging agitation produces. It is a measure aimed at a weak people, and which would never be dreamed of in connection with any nation able to defend itself. It is narrow, bigoted, intolerant, and indefensible legislation. It assumes conditions that do not exist, and aims to correct evils that are purely imaginary. It suggests the want of laws to prevent undesirable Chinese immigration, but the
fact is that existing laws are entirely adequate to accomplish that purpose.

He quoted at length the letter of protest ad-
dressed by the Chinese Minister to the Secretary of State, which set forth various objections to
the measure as follows:

I do not wish to go into the different provi-
sions of this bill for the present. I have been
asked to call your attention in a general way to its
effects. It restricts the privileged Chinese persons,
other than laborers, to come to the United States
to only five classes, viz., officials, teachers, stu-
dents, merchants, and travelers, in direct contra-
vention to the treaty of 1880, in Article I, where it
states that the limitation or suspension of Immigration shall apply only to laborers, 'other
classes not being included in the limitation.' So
also the history of the negotiation shows that it
was the intention of the two governments that
laborers alone were to be excluded. Under the
bill there would be excluded bankers, capitalists,
commercial agents or brokers, and even mer-
chants who come only to make purchases: also
scholars and professors, of which there are many
in China of high attainments: also physicians,
clergymen, and many other classes which do not
fall under the five classes exempt by the bill.

This seems to me, if the five exempt classes are so restrictive as to practically nullify the treaty in regard to them. The definitions as to
teachers, students, and merchants are so con-
trary to the spirit of the treaty as to make them
almost impossible of observance.

A woman married according to the Chinese
custom to a person of the exempt classes would
be prohibited from entering the country, because
according to the provision of the bill it is neces-
sary that the marriage shall be legal and binding
by the laws of the United States.

The bill requires that all Chinese laborers
now in the United States shall undergo a new
registration. It will be remembered that my
Government remonstrated against the first regis-
tration that was proposed under the Geary law,
and only consented to it at the earnest request
of the Secretary of State at the time. All the
Chinese laborers submitted to that requirement
and were registered, and now it is proposed to
nullify all that and subject them to the annoy-
ance and trouble of a new registration. It is an
unnecessary hardship and should not be re-
quired.

The bill also contemplates the registration of
all merchants and of others of the exempt class.
This can not be required under the treaty, but
the bill attempts to obviate that obstacle by
making the failure to register a serious prejudice
of their rights.

I have heretofore complained to you of the
great hardships to which laborers, merchants,
and others are subjected after they have been
admitted to the United States and are lawfully
domiciled in this country. Past experience shows
that Chinese have been arrested by the wholesale,
placed in jejunum, and subjected to molestation
and insult. When found innocent, no redress
is obtained for such illegal arrest. Persons
charged with being unlawfully in the country
and taken before a court are denied the privilege
of bail, but must remain in jail until their case
is decided. The bill, in place of providing some
relief for these hardships, rather adds restrictions
thereto.

The provisions with regard to transit across
the United States imposed by this bill are almost
impossible to be complied with, because people who
are passing through the country to other
countries do not know the laws of the country,
and they can not understand the intricate rules and regulations made by the Commis-
sioners.

The report of the committee says that 'the
greatest degree of fairness and justice to the ex-
empt classes will be insured by the provisions of
the bill, which I should like to reserve an
investigation and disposition of their claims.'
And again it says: 'The features of the bill ...
will tend to protect the worthy immigrant in his
treaty rights and privileges.'

I have referred to the fact that the provisions
as to the admission of the exempt classes are in
direct violation of the treaty; and in addition to
this the bill provides that the exempt or classes
must submit their right to admission to the
adjudication of the Immigration Bureau, which,
as I showed in my note to you of Dec. 10, last,
was a purely ex parte investigation, where the
claimant was not permitted to confront the wit-
nesses, was deprived of the privilege of counsel,
and was excluded from an appeal to the courts.
I can not understand how the committee can
style this 'the greatest degree of fairness and
justice,' or how the 'worthy immigrant is pro-
tected in his treaty rights and privileges.' It
seems to me, if the five exempt classes are so restrictive as to practically nullify the treaty in regard to them. The definitions as to
teachers, students, and merchants are so con-
restrictions upon Chinese persons and require them to comply with such strict provisions that no Chinese having the least respect for himself would submit to such indignities and come to this country. I fear the effect of the bill, if it becomes a law, will be that Chinese merchants will not come here to buy goods nor students come for educational purposes.

Another feature of the bill must be alluded to. The new possessions of the United States, such as Porto Rico, the Hawaiian Islands, the Philippines, and others which may hereafter be acquired, are subject to its provisions. It can not be claimed that they were considered when the treaty was negotiated, and it is hardly just or in accordance with international comity that the treaty should be extended to them without the consent of China.

"I have received repeated instructions from the Imperial Government, in view of the reenactment of the exclusion laws, to exert myself to see that treaty rights are observed and that no unnecessary hardships are placed upon Chinese subjects, and I feel that on account of the pendency of the legislation referred to I could not refrain from asking your Government in making the treaty provision for the views above set forth. You know that in regard to the exclusion of laborers my Government and myself have stood ready to cooperate with your Government in making the treaty prohibition effective. But with regard to the exempt classes who seek to come here for trading, educational, and other legitimate purposes, I must earnestly protest against the unwarranted and unjust provisions of the bill. In place of "insuring the greatest degree of fairness and justice," as stated by the Immigration Committee, it would impose such indignities and hardships upon these classes that few, if any, would come here. And notwithstanding the sincere wish of my Government and myself to maintain and cement closer the friendly relations between the two countries, I greatly fear that those friendly relations would be endangered by the enforcement of the act."

So to obviate the Senate adopted, instead of the committee measure, a brief substitute offered by Mr. Platt, of Connecticut, and passed the measure by a vote of 76 to 1. April 17 this substitute was passed as an amendment to the House bill.

After the usual non-concurrence and two conferences, it was modified slightly and accepted by the Senate.

It was approved by the President, April 29, 1902, in the following form:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all laws now in force prohibiting and regulating the coming of Chinese persons, and persons of Chinese descent, into the United States, and the residents of such persons therein, including sections 5, 6, 7, 8, 9, 10, 11, 13, and 14 of the act entitled 'An Act to prohibit the coming of Chinese laborers into the United States,' approved Sept. 13, 1888, be, and the same are hereby, reenacted, extended, and continued so far as the same are not inconsistent with treaty obligations, until otherwise provided by law, and said laws shall also apply to the island territory under the jurisdiction of the United States, and prohibit the immigration of Chinese laborers, not citizens of the United States, upon the island territory of the United States, whether in such island territory at the time ofcession or not, and from one portion of the island territory of the United States to another portion of said island territory: Provided, however, That said laws shall not apply to the transit of Chinese laborers from one island to another island of the same group; and any island within the jurisdiction of any State or the District of Alaska shall be considered a part of the mainland under this section.

"Sec. 2. That the Secretary of the Treasury is hereby authorized and empowered to make and prescribe, and from time to time to change, such rules and regulations not inconsistent with the laws of the land as he may deem necessary and proper to execute the provisions of this act and the acts hereby extended and continued and of the treaty of Dec. 8, 1894, between the United States and China; and with the approval of the President to appoint such agents as he may deem necessary for the efficient execution of said treaty and said acts.

"Sec. 3. That nothing in the provisions of this act or any other act shall be construed to prevent, hinder, or restrict any foreign exhibitor, representative, or citizen of any foreign nation, or the holder, who is a citizen of any foreign nation, of any privilege, certificate of fair or exposition authorized by act of Congress from bringing into the United States, under contract, such mechanics, artisans, agents, or other employees, natives of their respective foreign countries, to the arts, sciences, or manufactures of the United States, such as may be lawfully authorized or permitted under or by virtue of or pertaining to any concession or privilege which may have been or may be granted by any said fair or exposition, in carrying on their business, or which have been or may be lawfully authorized or permitted under or by virtue of or pertaining to any concession or privilege which may have been or may be granted by any said fair or exposition, for the purpose of making preparation for installing or conducting their exhibits or are preparing for installing or conducting their exhibits or for making preparation for installing or conducting their exhibits or for installing or conducting their exhibits or for installing or conducting their exhibits.

"Sec. 4. That it shall be the duty of every Chinese laborer, other than a citizen, rightfully in, and entitled to remain in any of the insular territory of the United States (Hawaii excepted) at the time of the passage of this act, who remains within one year thereafter a certificate of residence in the insular territory wherein he resides, which certificate shall entitle him to reside therein, and upon failure to obtain such certificate as herein provided he shall be deported from such insular territory; and the Philippine Commission is authorized and required to make all regulations and prohibitions necessary for the enforcement of this section in the Philippine Islands, including the form and substance of the certificate of residence so that the same shall clearly and sufficiently identify the holder thereof and enable officials to prevent fraud in the transfer of the same: Provided, however, That, if said Philippine Commission shall find that it is impossible to complete the registration herein provided for within one year from the passage of this act, said commission is hereby authorized and empowered to extend the time for such registration for a further period not exceeding one year."

The Isthmian Canal. Jan. 9, 1902, the House of Representatives passed by a vote of 308 to 2 says a bill "to provide for the construction of a canal connecting the waters of the Atlantic and Pacific Oceans." It authorized the President to act on the matter; but it determined upon the Nicaragua route, disregarding any other. It was on this point that the only difference of opinion arose. After many years of discussion there has come substantial agreement as to the
good policy of constructing such a canal, as to the necessity for Government ownership, and as to the propriety of immediate action; but the Panama route had some advocates in the House, and amendments to the measure were proposed favoring this route or leaving the choice of a route to the judgment of the President. These amendments were defeated. In the Senate, however, the sentiment in favor of the Panama route was much stronger, and Mr. Spooner, of Wisconsin, offered a substitute for the House bill, recommending the purchase of the Panama Canal and its completion as the best course, if feasible, and suggesting the Nicaragua route as an alternative. He said:

"No one can overstate the importance of the subject. The construction of a canal connecting the two oceans has been for many, many years the dream of statesmen and the prayer of mariners. It is a colossal enterprise; and one which I believe the people of the United States, with less division of sentiment than I have ever known upon any other subject, desire shall be inaugurated and carried forward as speedily as consists with the public interest; a great public work to stand for the future, as the inaugurations of our public policy stand for the uses of the present. And, Mr. President, as the years go on, it obviously is to become more and more important to the country and its commerce, to the world, if the world shall use it, and to the commerce of the world.

"He would be a very reckless and bold man who should attempt to set a limit upon what a hundred years may do for our population, our wealth, and the extent of our commerce; and, Mr. President, no higher or more solemn duty, in my judgment, ever rested upon men in public position—as this work is to subsist not simply the purposes of commerce, but to promote the defense of the nation—than rests upon the Congress to reach the wisest possible conclusion upon this subject. It is too broad to be affected by sectionalism; it is a project of the whole country and of the whole people for all time, and it is not to be belittled, Mr. President, or it should not be acted upon by malice, by prejudice, by jealousy, or by assumed local interest.

"If there ever was a question to the solution of which ought to be brought the broadest views from all sources, to my mind this is that problem. I have not supposed it could be debated, that what the people of the United States expect of us and demand of us and have a right to receive from us, is the best solution of this question, to the best of our ability, unfettered by any extraneous considerations. The people are to build this canal, they are to maintain it, and it is not debatable that they wish, and they are entitled to have the best canal route.

"It has seemed to be considered by some Senators evidence of disloyalty to the project of an isthmian canal that an amendment has been offered to this bill, or proposed to be offered to it, projecting into the discussion consideration of the Panama route. In other words, it seems to have been thought novel, rather unjustified, and necessarily, therefore, with ulterior purpose, that the Senate did not find itself ready unanimously to adopt without debate the bill known as the Hepburn bill, which lies upon our table, providing for the construction of the Nicaragua Canal. I am quite unable to find any foundation or justification for that suggestion.

"The route of the Panama Canal was so enveloped with the thick fog of scandal as not to be perceptible to the people of the United States and as to be considered entirely out of the question. How does it come to us to-day? In 1889 Congress passed a law making it the duty of the President to 'make a full and complete investigation of the Isthmus of Panama with a view to the construction of a canal by the United States across the same to connect the Atlantic and Pacific Oceans; that the President is authorized to make investigation of any and all practicable routes for a canal across said Isthmus of Panama, and particularly to investigate the two routes known respectively as the Nicaraguan route and the Panama route.' What for? 'With a view to determining the most practicable and feasible route for such canal.' I have never heard that law criticized. I believe it commended itself to the American people as a sensible proposition made in their obvious interest, the inspiration of it being to secure, through adequate investigation by fit men, an examination of the various routes and a report to the President and to the Congress of that route which possessed the greatest relative merit and advantage.

"Does any one say that after the enactment of that law we were only to look at the Nicaragua route; that thereafter the people did not expect us to act upon the report of the investigation in-"
they have acted upon any other motive than a desire for large portion, and the party and in
telligently and in the public interest; and nobody
can impeach them. They point out the ad
vantages of one route over the other; this reduc
tion in price of the Panama Canal property; and
they unanimously recommend the Panama route
as the route which should be secured.

"Congress is asked to act aside incontinently
that report of distinguished experts and to act in
opposition to it in a way; to substitute the
judgment of lawyers and laymen; and those of us
who are sent here, most of us without experience
or skill in engineering, are asked to adopt the
plan, not which the commission recommends, but
which we think is better.

"I have not been able—although I want a
channel, and I want it under this bill, and if we
can not secure the Panama Canal I want the
Nicaragua route—to cast aside the solemn report
and judgment of these experts chosen by Presi
dent McKinley, carrying out this work under an
appropriation of $1,000,000, taking abundance of
time to do it, and making a report in such detail,
and to substitute my own judgment for it. Other
beginning may be made of it, as we have by our treaty
land made it, in a sense, a provincial canal (in
other words, we are the sole guarantor of its
neutrality, with a right to close it against an
enemy), with this map, the difference in the length of the canals. A canal
49 miles long as against one 183 miles long. The
shorter the canal, every one can see, the better. A
canal which can be made to go in the
daylight, through which a sailing ship with a tug
can go in the daylight, between sunrise and sun
set, as against one that will require thirty-five
hours! That is an insalvable advantage. It is
an advantage in the matter of safety, and be
cause it is an advantage in the matter of safety it is an advantage for all time, too, in the matter
of insurance.

"Panama is farther from some of our ports,
measured by miles, but measured by time, so far
as the steamship is considered, there is not an ap\
preciable difference. Taking it as a layman's
view, I think a man—lawyer or layman—
being interrogated as to which canal would be
preferable, one through which ships could pass
between sunrise and sunset, one through which
it would take three days to pass in daylight,
would not hesitate long to say that the former
possessed a tremendous advantage.

"There is another thing, speaking only as
a layman, which has commended to me the
Panama route, since the report of the commission
as against the Nicaragua route, although I want
the canal built on that if we can not build it on
the other. That point is this: The Panama Canal,
however it is built now, the testimony shows, can
be made in the future a sea-level canal. The
Nicaragua Canal can not. It is a mere matter of
money, the estimate in the report, the statement
in the report of the commission. It is so stated in the testimony of the
experts before the committee.

"It may become of infinite importance to the
people of the United States 'in the long reach of
time' to make a sea-level canal of it. Is it worth
nothing to adopt the shorter canal? Is it worth
nothing to have the certainty that in the future,
if the public interest and safety demand it, with
the expenditure of the requisite money, this can
be made a sea-level canal? I think it is worth a
great deal. Senators may think it is worth
nothing.

"But given the practicability of it, Mr. Presi
dent, in the long years to come, when our popula
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"But given the practicability of it, Mr. Presi
dent, in the long years to come, when our popula

eral party of Colombia had declared its hostility to the contract with the Panama Canal Company, and that the corporation in reality had nothing to sell for the $40,000,000 which it now asks for the canal. He said,

"Now I have established it in a formal way, in protests that have been issued and notified to the Panama Canal Company, notified to the Colombian Government, and then notified to the United States, that the Liberal party in Colombia, now professing to have, and having, the support of the great majority of that people, will never ratify these agreements that we are bidding $40,000,000 for.

"Mr. President, we might as well throw the money into the sea as to appropriate it to this broken-down company that is now speeding to its last moments of existence when it knows that this bribe to Sanclemente of $1,000,000, which he paid in gold, is not going to hold good, that they can not realize anything from it, and that the Colombian Government, after 1894, two years ago, will repudiate the whole thing and claim the property, as they have a perfect right to do.

"They commit an act of bankruptcy in falling for $40,000,000 for $100,000, it is a very obvious thing to sell that property. There is not a bankrupt court in the United States, nor in France, nor in the world that would sustain a sale made by an acknowledged bankrupt by one who becomes a bankrupt and files his petition for a discharge when he claimed to hold a property worth $100,000,000 and had sold it for $40,000,000.

"And yet we find in the Records of this House our learned friends in the minority of this committee insist that that is a valid transaction and binding, not only upon Colombia but upon the clean conscience of this great and noble republic. I repudiate it. I deny the impeachment against my country that it is capable of entering into as questionable a contract as that.

"Now, Mr. President, I have presented the points I desired to present to show that this contract is not of the value of a last year's bird's-nest. It is void, and not only void, but it is fraudulent, and the Liberal party, by the Liberal Government repudiate it and give us notice that they intend in future to repudiate it. Are we still to persist in paying $40,000,000 to the Panama Canal Company? Is it a contract that is to be assailed and proved to be not merely void, but fraudulent; for that is what these men charge?"

"Now, sir, that war is going on. It has been flagrant every day since that transaction took place and since that Congress adjourned. They did resolve before they went out that the presidency was vacant, and thereupon the President of the provisional Government assumed that he was in lawful authority. From that day to this he has so contended. He has had his armies in the field and fought heavy battles, in which there have been great losses on both sides.

"This controversy in a minor way represents, not in principle, but in the action of the people concerned, that great and terrific controversy in which we were concerned in 1861-65. They fight with desperate determination, and they are at it to-day. The latest accounts in the newspapers, by telegraph, on yesterday were that the Government, or the Conservatives, as they are called, were attacking the Liberals, who are fortified in Panama, and that those outside the walls had 7,000 men, and those inside the walls had about 4,000. There are 10,000 or 12,000 men to-day engaged in battle originating out of these unlawful acts, about which we are quietly legislating, with a view of paying the company that have got up the row $40,000,000 for their interference.

"That is the situation to-day.

"There is another fact connected with this war which I want to call to the attention of the American people. I have the honor of being listened to by a faithful and splendid Democrat, almost the only one who is here. The Senate is not my audience. I wish to distinctly understand that I am speaking to the American people, and through them I will speak to the Senate.

"I have presented now these facts, but I want to connect another one with it as another cause of the war. Why are these men called Liberals and Conservatives? It is an old political division, commencing on the first outbreak after the revolution in Mexico, and it has followed all the Spanish-American States after their first organization. The revolutions in those different governments found the bonds of Church and state irrevocable in all these Spanish provinces, and they revolted at that. Mexico in consequence of it had 52 presidents in fifty years, and Panama has had about that number of governors in sixty years. There are few states, if any, exempt; perhaps Chile and Argentina. I know of few states, if any, in South America or in North America or in Central America that have escaped this same conflict that is raging to-day in Colombia. The division of parties is the Liberal and the Church party, or Conservatives.

"I read to the Senate the other day a paper from Pope Leo XIII, a concordat made with Colombia in 1882. It is a very remarkable thing that is established as a part of the fundamental government of that republic, not an established Church—Leo would not have it that way—but an independent Church, represented by the Holy See and negotiating in its political capacity with Colombia as an independent republic. The two governments came to an agreement and made a compact, which is set forth in that concordat.

"The establishment of that concordat so long after Panama and Colombia had their struggles to maintain independence was a serious blow at the Liberal party. The Liberal party, by the Liberal Government repudiate it and give us notice that they intend in future to repudiate it. Are we still to persist in paying $40,000,000 to the Panama Canal Company? Is it a contract that is to be assailed and proved to be not merely void, but fraudulent; for that is what these men charge?"

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a provision that the annual budget shall contain at least $100,000 for the maintenance of the Church in the country.

"Now, I am presenting these facts to the American people to make them think about them, but I know the people will take note of it. I know the people of the United States do not want to go to Colombia under a contract with such a man as the majesty and superiority of the laws of that state over a canal bill where honorable men, though they may be workmen, may desire to go and conduct their business there and stay for the purpose of maintaining a little shop to make some money for his wife and children. I know that our people are not going to consent to a provision getting a canal, to pay $40,000,000 for the opportunity of placing themselves beneath the yoke of that concordat.

"The people will make points upon Senators on either side of this Chamber who undertake to put them and their affairs in that category by an expenditure of $40,000,000 and then deal with a corporation that is denounced by the Liberal party, now in arms and fighting around Panama, as one not only contrary but destructive of the Constitution of Colombia of 1866.

"That is as far as I care to go, Mr. President, in the presentation of that question. So in the very threshold of this legislation we are met by a company that is denounced by more than half of Colombia as a fraud and an outrage and as a conspirator in favor of the Church party and against liberal government. Whether it is true or not, what difference does it make? It shows the state of feeling there.

June 18, the House bill was radically amended by the Senate, and then passed by a vote of 67 to 6 nays. The House non-concorded, but after conference receded from its disagreement to the Senate amendment. The President approved the measure in the following form June 25, 1902:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States, hereby from the Republic of Colombia, and on behalf of the United States, at a cost not exceeding $40,000,000, the rights, privileges, franchises, concessions, grants of land, right of way, unmolded works, plans, drawings, records on the Isthmus of Panama, and in Paris, including all the capital stock, not less, however, than 65,863 shares of the Panama Railroad Company, owned by or held for the use of said company, provided for a satisfactory title to all of said property can be obtained.

"Sec. 2. That the President is hereby authorized, for and on behalf of the United States, upon such terms as he may deem reasonable, perpetual control of a strip of land, the territory of the Republic of Colombia, not less than 6 miles in width, extending from the Caribbean Sea to the Pacific Ocean, and the right to use and dispose of the water thereon, and to excavate, construct, and to operate a point to the Isthmus of Panama, and thence a canal, of such depth and capacity as will afford convenient passage of ships of the greatest tonnage and draft now in use, from the Caribbean to the Pacific Ocean, said canal shall include the right to perpetually maintain and operate the Panama Railroad, if the ownership thereof, or a controlling interest therein, shall have been acquired.

"The President may acquire such additional territory and rights from Colombia as in his judgment will facilitate the general purpose hereof.

"Sec. 3. That when the President shall have arranged to secure a satisfactory title to the property of the New Panama Canal Company, as provided in section 2 hereof, and shall have obtained by treaty control of the necessary territory from the Republic of Colombia, as provided in section 2 hereof, he is authorized to pay for the property of the Pan-American Canal Company $40,000,000 and to the Republic of Colombia such sum as shall have been agreed upon, and a sum sufficient for both said purposes is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to be paid on warrant or warrants drawn by the President.

"The President shall then through the Isthmian Canal Commission hereinafter authorized cause to be excavated, constructed, and completed, utilizing to that end as far as practicable the work heretofore done by the New Panama Canal Company, of France, and its predecessor company, a ship-canal from the Caribbean Sea to the Pacific Ocean. Such canal shall be of sufficient capacity and depth as shall afford convenient passage for vessels of the largest tonnage and greatest draft now in use, and such as may be reasonably anticipated, and shall be supplied with all necessary locks and other appliances to meet the necessities of vessels passing through the same from ocean to ocean; and he shall also cause to be constructed such safe and commodious harbors at the termini of said canal, and make such provisions for defense as may be necessary for the construction, protection, and maintenance of said canal and harbors. That the President is authorized for the purposes aforesaid to employ such persons as he may deem necessary, and to fix their compensation.
meet the necessities of vessels passing through the isthmus en route to ocean; and he shall also construct such safe and commodious harbors at the termini of said canal as shall be necessary for the safe and convenient use thereof, and shall make such provision for the defense as may be necessary for the safety and protection of said harbors and canal; and such sum or sums of money as may be agreed upon by such treaty as compensation to be paid to Nicaragua and Costa Rica for the concessions and rights hereunder provided to be acquired by the United States, are hereby appropriated, out of any money in the Treasury not otherwise appropriated, to be paid on warrant or warrants drawn by the President.

"The President shall cause the said Isthmian Canal Commission to make such surveys as may be necessary for said canal and harbors to be made, and in making such surveys and in the construction of said canal may employ such persons as he may deem necessary, and may fix their compensation.

"In the excavation and construction of said canal the San Juan river and Lake Nicaragua, or such parts of each as may be made available, shall be avoided."

"SEC. 5. That the sum of $10,000,000 is hereby appropriated, out of any money in the Treasury not otherwise appropriated, toward the project herein contemplated by either route so selected."

"And the President is hereby authorized to cause to be entered into such contract or contracts as may be deemed necessary for the proper excavation, construction, completion, and defense of said canal, having the advice and consent of the President by the route finally determined upon under the provisions of this act. Appropriations therefor shall from time to time be hereafter made, not to exceed in the aggregate the additional sum of $155,000,000 or such sum the Panama route be adopted, or $180,000,000 or the Nicaragua route be adopted."

"SEC. 6. That in any agreement with the Republic of Columbia, or with the states of Nicaragua and Costa Rica, the President is authorized to guarantee to said republic or to said states the use of said canal and harbors, upon such terms as he may think proper, for vessels owned by said states or by citizens thereof."

"SEC. 7. That to enable the President to construct the canal and works appurtenant thereto as herein in the act in this act provided the Isthmian Canal Commission, the same to be composed of 7 members, who shall be nominated and appointed by the President, and with the advice and consent of the Senate, and who shall serve until the completion of said canal unless sooner removed by the President, and one of whom shall be named as the chairman of said commission. Of the 7 members of said commission at least 4 of them shall be persons learned and skilled in the science of engineering, and of the 4 at least one shall be an officer of the United States army, and at least one other shall be an officer of the United States navy, the said officers respectively being either upon the active or the retired list of the army or of the navy. Said commissioners shall each receive such compensation as the President shall prescribe until the same shall have been otherwise fixed by the Congress. In addition to the members of said Isthmian Canal Commission, the President is hereby authorized through said commission to employ in said service any of the engineers of the United States army at his discretion, and likewise to employ any non-commissioned or petty officers of the United States army at his discretion and any other persons necessary for the proper and expeditious prosecution of said work. The compensation of all such engineers and other persons employed under the said commission, subject to the approval of the President. The official salary of any officer appointed or employed under this act shall be deducted from the amount apportioned for the payment of the compensation provided for or which shall be fixed under the terms of this act. Said commission shall in all matters be subject to the direction and control of the President, and shall make to the President annually and at such other periods as may be required, either by law or by the order of the President, full and complete reports of all their actions and doings and of all moneys received and expended in the construction of said work and in the performance of their duties in connection therewith, which said reports shall be by the President transmitted to Congress. And the said commission shall further give to Congress, or either House of Congress, such information as may at any time be required by either act of Congress or by the order of either House of Congress. The President shall cause to be provided and assigned for the use of the commission such offices as may, with the suitable equipment of the same, be necessary and proper in his discretion, for the proper discharge of the duties thereof."

"SEC. 8. That the Secretary of the Treasury is hereby authorized to borrow on the credit of the United States from time to time, as the proceeds may be required to defray expenditures authorized by this act (such proceeds when received to be used only for the purpose of meeting such expenditures), the sum of $120,000,000, or so much thereof as may be necessary, and to prepare and issue therefor coupon or registered bonds of the United States in such form as he may prescribe, and in denominations of $20 or some multiple of that sum, redeemable in gold coin at the pleasure of the United States after ten years from the date of their issue, and payable thirty years from such date, bearing interest payable quarterly in gold coin at the rate of 2 per centum per annum; and the bonds herein authorized shall be exempt from all taxes or duties of the United States, and from taxation in any form by or under State, municipal, or local authority: Provided, That said bonds may be disposed of by the Secretary of the Treasury at par, and with the advice and consent of the Senate, and with such regulations as he may prescribe, giving to all citizens of the United States an equal opportunity to subscribe therefor, but no commissions shall be allowed or paid thereon; and a sum not exceeding one-tenth of one cent per annum of the amount of the bonds herein authorized is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to pay the expense of preparing, advertising, and issuing the same.

The Census Bureau.—The Congress passed a measure to provide for a permanent Census Office. The House committee, which reported in favor of the measure, said among other things:

"It is estimated that the sum required to complete the principal inquiries ordered by the temporary census act, and included in the proposed bill, will be about $3,600,000, spreading it over the next four years. This involves an office force of not far from 800 people, including the present executive force of about $160,000 per annum; including also rental, miscellaneous expenses, etc. Under the proposed bill, however, with the changes that have been made, it is estimated that it will cost about $815,000 for the next six years. This involves a material reduction in the clerical force during
the time indicated; also a reduction of about $114,000 per year in the executive force and a corresponding reduction in general expenses, rental, etc., so that in effect the actual expenditures of the Government would be practically the same. It is the belief of your committee that when all phases of the question are taken into consideration there will be in the end an actual saving of money to the Government as a result of establishing a permanent Census Office at this time, to say nothing of the enormous gain from a scientific point of view, and increase in the value and accuracy of future censuses which would result from this legislation.

"There will also be a very handsome saving in the amount required to prepare for the ordinary decennial census. The appropriation for preliminary work at the last two decades has been $1,000,000 each. In view of the fact that there would be a trained force in the Census Office and ample time, at least one-half of this sum could be saved in the work of preparation for the next census, and a further sum of $40,000 saved in the way of furniture and fixtures.

"The question has been raised how the clerical force of a permanent Census Office can be kept during the twelfth census, a period that must elapse between the completion of the work on the special reports and the commencement of preparation for the thirteenth census. There is work enough provided for in section 8 of the existing law to keep a force of skilled clerks busy for the entire interval from July 1, 1902, to say, October, 1908, when the preparation for the thirteenth census should be well under way. The special inquiries required by section 8 can be distributed over the whole period; and this distribution would undoubtedly result advantageously in the quality of the work done. For instance, in addition to the annual report upon births and deaths in registration areas, provided for in the new section of the present bill, the division of vital statistics would be employed upon a special report upon the deaf and dumb, a special report upon the blind, a special report upon the insane and feeble-minded, a special report upon criminals and juvenile delinquents, and a special report upon pauperism and benevolence; and these special reports would be made, one in each year, until completed.

"In the same way the report on public indebtedness, valuation, taxation, and expenditures, provided for in section 8, would divide itself into special reports upon public indebtedness, upon public receipts and expenditures, upon assessments and taxation, and upon true valuation of real and personal property. These separate reports, it is estimated, would occupy one division of the permanent Census Office until the spring of 1907, the publication of the results of the several parts of the investigation to take place from time to time as the same are completed.

"In another division the inquiries as to streets, sewers and bridges, street car system, and electric light and power would be taken up and brought to completion, or substantially so, before the investigation of mines and mining is entered upon. Upon the completion of the latter report, the investigation of transportation by water, a difficult and important field of inquiry, would follow in due order. Thus the Census Office would be occupied on all parts of the subject where a saving to the Government in addition to the fact that the materials that are obtained under the operations of the bureau will be vastly more important by reason of their greater accuracy and the scientific manner in which they are presented to the general public.

"I take it that every member of the House who has given any study to the subject where the investigation of various important subjects under the Constitution of the United States have been and appreciated the wasteful expenditure of money under these temporary bureaus, and they have seen that by the establishment of a permanent bureau there can be an actual saving to the Government, in addition to the fact that the materials that are obtained under the operations of the bureau will be vastly more important by reason of their greater accuracy and the scientific manner in which they are presented to the general public.

"I take it that every member of the House who has given any study to the subject where the investigation of valuable reports upon topics which Congress has already determined that it shall investigate. It would be entirely feasible, with a permanent Census Office, to divide the work into sections of corresponding reports for the next census in such a way that the report on each topic would be ten years distant from the last. This whole class of reports could thus be disassociated from the census year, with all its pressure, without destroying their comparability in point of time.

"Another clause of section 8 provides for a series of special reports on the social statistics of cities, and it will readily be seen that the work of making these reports, which will possess great value and interest, can be distributed to the best advantage over the entire period that will elapse before the next census. This course would involve the taking of the social statistics of the cities of certain sections of the country in one year and of other sections in another year, according as the facilities and opportunities of the permanent Census Office permit.

"Provision should be made also, in the event of a permanent census organization, for a careful review of the conditions governing the taking of the present census, in order that the plan of enumeration may be so arranged as to afford a very much closer supervision of the work of the census enumerators. Considerable progress has been made in this direction in the work of the present census, but the prescience of experience that very much more time must be given to the initiation of the preparatory work and steps taken at a comparatively early date to develop a better and more complete system, involving the possible separation of the enumeration of the population in cities from that in the rural sections of the country, and, in the latter case, making the country the unit for census supervision."

Mr. Hopkins, of Illinois, said, in presenting the measure:

"Mr. Chairman, if I can have the attention of the committee, I will take a few minutes briefly to explain the bill. I will say, however, that the report that was published in the Record this morning fully explains the character of the bill proposed here, the various provisions, and the expenditure necessarily incurred by the establishment of the bureau.

"I shall not take very much of the time of the committee to speak of the importance or the necessity of establishing a permanent Census Office.

"This is a question which has been before the people of this country for more than thirty years, and it is a question that has been favored by every statistician and every scientist in this country during that period. Every superintendent of the census since the taking of the ninth census has recommended the establishment of a permanent bureau.

"These men who have been charged with the duty of taking the census under the Constitution of the United States have seen and appreciated the wasteful expenditure of money under these temporary bureaus, and they have seen that by the establishment of a permanent bureau, wherever it can be an actual saving to the Government, it will not only be vastly more important by reason of their greater accuracy and the scientific manner in which they are presented to the general public.

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me that it will be a saving of money by establishing the bureau as proposed in this bill.

As the first step, the director suggested this matter, he called the attention of the members of our committee to the extravagant expenditure of money in establishing some of the subheads in the bureau, and I have no confidence in calling the attention of the members of this House to the fact that in taking the agricultural census alone there was an expenditure of $600,000 more than would be required under a trained force of clerks for the same work.

As was stated by the director of the twelfth census, not a person, from the highest officer down to the lowest clerk, had any specific knowledge upon the subject that would enable him to properly and economically plan the work and then see that it was properly executed. It was only by experience, groping in this direction first, and then in that, they were enabled to gather statistics and make a report as required by law; and it is by reason of such experience, had in this special department of the bureau itself, that the director came to the conclusion that in the interest of economy alone it was important to the interest of the efficiency of the officers that a bureau of this character be established.

The main point of discussion was the provision in the bill as reported making permanent the appointment of employees already engaged in census work temporarily, and putting them under the civil-service rules. This occasioned some controversy, and the civil-service law came in for harsh criticism from both sides. In the Senate, Mr. Stewart, of Nevada, said:

"Mr. President, while this matter of putting clerks who have been in the service under the protection of the civil service is before the Senate, I desire to put myself on record as being totally opposed to the present method of securing service in the departments. It has an element in it which in all ages, so far as we have any record, has led to unfair means and, perhaps, corruption. It has the element of secrecy about it. The public at large, although a few people may know it, do not know how it is gotten into through the civil service. They do not know upon what basis they are marked; they do not know how they are selected, and how it is all done. The secret would undoubtedly be explained if the people had access to the information, but they have not. It is all much of a mystery. Thousands of people have made trial to get in, have been examined, and they are now on the waiting list."

"I do not believe that this is the best way to select men for office. I think we should bring to bear some of the practical experience that great corporations—the railroad companies, who are so successful in the management of their affairs—use in selecting their employees. There should be more attention paid to the effectiveness of the parties in the particular line. Six months or a year of service is a great deal better test than any casual examination. There are a great many questions which are entirely irrelevant. Some persons can not get in who make the best and most efficient clerks. They can not answer these far-fetched questions; they are not right from school.

"And then we have thousands of people on the waiting list. I do not believe in the system at all. The great objection to the system is that the people do not know how it is done."

"I do not believe that there is always a chance for fraud and an opportunity to go into fraud. There is undoubtedly favoritism. We hear of it every day. As an example, a new administration comes in and asks about this service. It is a mystery to them. I believe in that portion of the civil service which retains competent and meritorious officials. I do not believe in the system being turned out every time a new administration comes into power."

"The mode of selecting these officials is, I think, entirely defective. The old mode, which was called 'the spoils system,' had some defects, but it was better in many respects than the present, and secured for the Government better clerks. Before the civil service was inaugurated there was a chance for the departments to secure good clerks, for the reason that the heads of the departments had more discretion in the selection; but it was defective by reason of the fact that it permitted Senators and Representatives to make their recommendations orally. If the old system could be corrected and its defects cured by securing publicity, it would give us a most efficient service."

"So far as this bill is concerned, I have no doubt that the employees who have had experience in the Census Office have been much more fairly examined than would have been appointed after examinations which have very little to do with the particular work to which they are to be assigned. If the census clerks should be transferred to other departments, we should get a better class of clerks than we now get under the mysterious system which prevails, for many of the civil-service questions are abstract and mysterious and can only be answered by those who have just come from colleges and schools. An ordinary man can not answer such questions as are propounded. I do not suppose that five members of the Senate could go through a civil-service examination for a clerkship in any department. That does not prove the fact that Senators would not make fair clerks—that is, those of them who can write well enough—but still they could not pass the civil-service examinations. Such examinations, as I have said, can only be passed by those who are fresh from schools and colleges, who have had no experience in clerical work, and who have had no trained habits of work or industry, but who have the education which enables them to answer these conundrums."

"I do not believe that is the way to get an efficient service. I do not believe there is any railroad company desirous of employing a conductor, for instance, who would examine him in astronomy or in botany, or in a great many of the things the Civil-Service Commissioners require. No railroad company would subject a conductor or anybody who was to be placed in an important position on the railroad to any such examination. I think most of the questions asked in these examinations are entirely irrelevant and relate to matters with which persons will have nothing to do in the event of their appointment, but the persons who have been in the Census Bureau and have proved their efficiency will make the best clerks that can be obtained for the departments. There is no doubt about that, because they have had the experience and have already undergone such an examination as tended to develop their capacity for this kind of work. The civil-service examinations as they are conducted are of no consequence, and great harm has been naturally the thought that clerks are now on the waiting list being kept out of other employment. This is doing injury to the coun-
try. I think we should try some other mode of putting men in office."

Mr. Gallinger, of New Hampshire, said:

"If it could be known—and no one can furnish that information but the Civil-Service Commis-
sion, and I think I shall ask for it some of these
days—how many young men and young women who
have left their homes have gone to the cities
and spent from $5 to $10 on each pilgrimage to
take the civil-service examination, who have
passed the examination and have been put on the
eligible list, have waited for one year and been
dropped from it, and have gone again and been
examined and been dropped from it—if the truth
could be known and the expense it has been to the young men and the young
women of this country could be aggregated, I
think it would appal the Congress of the United
States, and we can all imagine the disappoint-
ments it has brought to these young people.

"I have in my mind a young lady who passed
three examinations, a year apart, in this city,
and she passed at a very high rate. She is from
my own State. She did not get an appointment.
She waited a year and a half for the approval of
her work; and all over our country this condition of things
exists, and yet the commission are holding ex-
aminations all the time. One is scheduled for
my city in the near future. And yet the eligible
list is loaded down with hundreds and thousands
of names that never will be reached for certifica-
tion, and these young men and women are des-
tined to disappointment.

"Not only that, Mr. President, but the young
man who takes the civil-service examination and
passes it nine times out of ten is not worth any-
thing for business purposes. He expects to get a
Government job, as he calls it, and he waits a
year and he takes the examination again, and
he waits another year, and he is enervated. I
have a pathetic letter in my desk in the commit-
tee room from the father of a young boy who
took the examination two years ago. He tells
me that the boy is not worth anything because
he expects to get Government employment, and
he appeals to me to get him something to do in
the Government service. I have known many
and many such cases.

"So far as my State is concerned I do not
know whether it is properly cared for in the
departments or not. I know it to be true that
the rolls of every department of this Govern-
ment as far as New Hampshire is concerned, are loaded down with people
who never have been heard of in the State of
New Hampshire for the last twenty-five years.
The son of a dead Senator from a Western State
is on the rolls at a high salary credited to
the State of New Hampshire, and the only claim he
has upon the State is that his mother was born
in New Hampshire. I do not know who put him
there. Such men, even if they once belonged to
the State, do not come home to vote. They do
not contribute for political purposes. They are
of no earthly account to the State, and do not
belong to the State, and there ought to be some
way of weeding them out. But there is not. The
Civil-Service Commission say they are there and
they have to go on, until they die, and I
presume that if I am a fact."

The bill passed the House of Representatives
Jan. 30, 1902, and was amended and passed the
Senate Feb. 9, 1902, without a division. After
a conference the measure was modified and ap-
broued by the President, March 6, 1902, in the
following form:

"Be it enacted by the Senate and House of
Representatives of the United States of America
in Congress assembled, That the Census Office
temporarily established in the Department of the
Interior in accordance with an act entitled 'An
Act to provide for the taking the twelfth and
subsequent censuses,' approved March 3, 1899, is
hereby made a permanent office.

"SEC. 2. That the work pertaining to the
twelfth census shall be carried on by the Census
Office under the existing organization until the
1st day of July, 1902, when the permanent Cen-
sus Office herein provided for shall be organized
by the director of the census.

"SEC. 3. That the permanent Census Office shall
be in charge of a director of the census, appointed
by the President, by and with the advice and con-
sent of the Senate, who shall receive an annual
salary of $6,000. It shall be his duty to super-
intend and direct the taking of the thirteenth
and subsequent censuses of the United States and
to perform such other duties as may be imposed
upon him by law.

"SEC. 4. That there shall be in the Census Of-
fice, to be appointed by the director thereof, with
the approval of the President, 4 assistant clerks
for which the said Census Office is attached, 4 chief
statisticians, who shall be persons of known
and tried experience in statistical work, at an annual
salary of $2,500 dollars each; a chief clerk, at an
annual salary of $2,500, who, in the absence of
the director, shall serve as acting director; a dis-
bursing clerk, who shall also act as appointment
clerk, at an annual salary of $2,500; 1 stenogra-
pher, at an annual salary of $1,500; 4 expert chiefs
of division, at an annual salary of $1,500 each;
6 clerks of class three; 10 clerks of class two; and
such number of clerks of class one, and of clerks
of commissariat, typists, computers, and skilled laborers, with
salaries at the rate of not less than $600 nor more
than $1,000 per annum, messengers, assistant mes-
sengers, watchmen, and charwomen as may be
necessary for the proper and prompt performance of
the duties required by law. The disbursing
clerk herein provided for shall, before entering
upon his duties, give his oath to the Department of
the Treasury in the sum of $25,000, which bond shall
be conditioned that the said officer shall render a
true and faithful account to the proper accounting
officers of the Treasury quarter-monthly of all
moneys and properties which shall be received by
him by virtue of his office, with surety, to be
approved by the solicitor of the Treasury. Such
bond shall be filed with the Department of the
Treasury, to be by him put in suit upon
any breach of the conditions thereof.

"SEC. 5. That all employees of the Census Of-
fice, at the date of the passage of this act, except
unskilled laborers, may be appointed by the di-
rector of the census with the approval of the head
of the department to which said Census Office is
attached, and when so appointed shall be and
they are hereby placed, without further examina-
tion, under the provisions of the civil-service act
approved Jan. 16, 1883, and the amendments
tereto and the rules established thereunder; and
persons who have served as soldiers in any war in
which the United States may have been engaged,
who have been honorably discharged from the
service of the United States, and the widows of
such soldiers, shall have preference in the matter
of employment; and all new appointments to the
permanent clerical force of the Census Office here-
by created shall be made in accordance with the
requirements of the civil-service act above men-
tioned in so far as may have application thereto.

"SEC. 6. That all the provisions of the act of
March 3, 1899, relating to the twelfth census, not inconsistent with the provisions of this act, shall remain in full force and effect for the taking of the thirteenth and subsequent censuses.

SEC. 7. That section 8 of the act of March 3, 1899, is hereby amended so as to read as follows: That after the completion and return of the enumeration and of the work upon the schedules relating to the products of agriculture and to manufacturing and mechanical establishments provided for in section 7 of this act, the director of the census is hereby authorized decennially to collect statistics relating to special classes, including the insane, feeble-minded, deaf, dumb, and blind; to crime, pauperism, and benevolence, including prisoners, paupers, juvenile delinquents, and inmates of benevolent and reformatory institutions; to social statistics of cities; to public indebtedness, valuation, taxation, and expenditure; to religious bodies; to electric light and power, telephone, and telegraph business; to transportation by water, express business, and street railways; to mines, mining, quarries and minerals, and the production and value thereof, including gold in divisions of placer and vein, and silver; and, in general, the number of men employed, the average daily wage, average working time, and aggregate earnings in the various branches and aforesaid divisions of the mining and quar- rying industries on July 1, 1904. And the director of the census shall prepare schedules containing such interrogatories as shall be in his judgment be best adapted to elicit the information required under these subjects, with such provisions, divisions, and particularizations under each head as he shall deem necessary to that end, and all reports prepared under the provisions of this section shall be designated as "Special reports of the Census Office." For the purpose of securing the statistics required by this section, the director of the census may appoint special agents when necessary, and such special agents shall receive compensation as hereinafter provided: Provided, That the statistics of special classes, and of crime, pauperism, and benevolence specified in this section shall be restricted to all institutions containing such classes and the director of the census is authorized and directed to collect statistics relating to all of the deaf, dumb, and blind, notwithstanding the restrictions and limitations contained in section 8 of said act entitled: 'An Act to provide for taking the twelfth and subsequent censuses': Provided, That in taking the census of said classes the inquiries shall be confined to the following 4 questions, namely: Name, age, sex, and post-office address.

SEC. 8. That there shall be a collection of the statistics of the births and deaths in registration areas for the year 1902, and annually thereafter, the data for which shall be obtained only from and restricted to such registration records of such States and municipalities as in the discretion of the director possess records affording satisfactory data in necessary detail, the compensation for the transcription of which shall not exceed 2 cents for each birth or death reported.

SEC. 9. That in the year 1905, and every ten years thereafter, there shall be a collection of the statistics of manufacturers, confined to manufacturing establishments conducted under what is known as the factory system, and in the so-called neighborhood and mechanical industries; and the director is hereby authorized to prepare such schedules as in his judgment may be necessary to carry out the provisions of this section; and in addition to the statistics now provided for by law the director of the census shall annually collect the statistics of the cotton production of the country as ascertained by the gazette and bulletins giving the results of the same shall be issued weekly beginning Sept. 1 of each year and continued till Feb. 1 following; and that the director of the census shall make, from time to time, any additional special collections of statistics relating to any branch of agriculture, manufacture, mining, transportation, fisheries, or any other branch of industry that may be required of him by Congress.

"SEC. 10. That section 17 of the act of March 3, 1899, is hereby amended so as to read as follows:"

"SEC. 17. That the special agents appointed under the provisions of this act have like authority with the enumerators in respect to the subjects committed to them under this act and shall receive compensation at rates to be fixed by the director of the census: Provided, That the same shall in no case exceed $6 per day and actual necessary traveling expenses and an allowance in lieu of subsistence not exceeding $3 per day during their necessary absence from their usual place of residence: And provided further, That no pay or allowance in lieu of subsistence shall be paid to any special agents when employed in the Census Office on other than the special work committed to them, and no appointments of special agents shall be made for clerical work: And provided further, That the director of the census is hereby authorized in his discretion to employ the clerical force of the Census Office for such field-work as may be required to carry the provisions of sections 7, 8, and 9 in lieu of employing special agents for that purpose; and such employees when so employed shall be allowed, in addition to their regular compensation, actual necessary traveling expenses and an allowance in lieu of subsistence not exceeding $3 per day during their necessary absence from the Census Office. All employees of the Census Office shall be citizens of the United States.

"SEC. 11. That the printing-office established in the Census Office is hereby abolished to take effect July 1, 1899, and the outfit and equipment thereof shall be turned over to the Postmaster-General and the director of the census is hereby authorized and directed to have printed, published, and distributed, from time to time, bulletins and reports of the preliminary and other results of the various investigations authorized by law; and all of said printing and binding shall be done by the public printer at the Government Printing-Office.

"SEC. 12. That the supplemental acts amendatory of the act of March 3, 1899, approved Feb. 1, 1900, May 10, 1900, June 23, 1901, are hereby repealed; and all provisions of the act of March 3, 1899, inconsistent with this act are hereby repealed."

Oleomargarine and Dairy-Products.—A bill "to make oleomargarine and other imitation dairy-products subject to the laws of the State or Territory or the District of Columbia into which they are transported, and to change the tax on oleomargarine, and to amend an act entitled 'An Act defining butter, also imposing a tax upon and regulating the manufacture, sale, importation, and exportation of oleomargarine' approved Aug. 2, 1880," was taken up for discussion in the House of Representatives Feb. 3, 1902. It provided that oleomargarine brought into one State from another for sale be subject to the laws of the locality, and that a tax of 10 cents a pound be levied on the manufacture of this article in imitation of yellow butter. In support of the measure, Mr. Haskins, of Connecticut, speaking
for the majority of the Committee on Agriculture, said:

"The proposed legislation is not intended to be oppressive or unduly severe. It is the manifest duty of the governing power to prevent fraud and imposition upon those unable to protect themselves. Legislation tending to this end is as legitimate as laws for the prevention and punishment of crime and misdemeanors. Pure food of all kinds should be guaranteed to every citizen. The purchaser of all articles of food has a right to know what he is buying and consuming. If disguised, mixed, or blended, the manufacturer should be compelled to disclose the kind and quality of the ingredients used and certify to the purity and wholesomeness of the materials sold to a trusting public. It is not unjust or inquisitorial to subject producers and manufacturers to governmental inspection and control. Police supervision has long been exercised over the production and sale of milk and other dairy-products. Proper supervision is sought rather than opposed by the honest manufacturer and dealer. Reputable and inviolate trade-marks are invaluable. Manufacturers in all branches of textile and other industries fully realize this fact and are held by high standards of excellence. This is equally true of the producers of cereals and other food-products. Why should manufacturers of oleomargarine or butter be an exception to the rule? Indeed, it is difficult to understand upon what reasonable grounds manufacturers of honestly made oleomargarine object to the proposed legislation."

"The substitution of an uncolored article for butter in the substitute bill, if enacted into law, will, hopefully, make the manufacture of oleomargarine colored in imitation of butter and deceptively sold unprofitable. To this end the internal-revenue tax upon colored oleomargarine is increased from 2 cents to 10 cents per pound, while the tax upon the uncolored article is reduced to one-fourth cent per pound, a nominal tax, merely imposed to maintain Government supervision and police control."

"The discrimination between the colored and uncolored will not and is not intended to ruin a legitimate industry. Your committee were strengthened in this conviction by testimony given at the committee hearings by manufacturers of oleomargarine. One manufacturer stated that one-half of his monthly product of 700,000 pounds, or almost 350,000 pounds, is uncolored. Another manufacturer, when asked 'If, in his opinion, uncolored oleomargarine can be profitably made and sold,' replied: 'It is sold to some extent already, and I am one of those who believe that oleomargarine, having been used for more than a quarter of a century, there are some people at least who have learned that it is a wholesome and cheap article of food, and will continue to use it. These people, if the colored is not obtainable, will use the uncolored.'"

"Properly manufactured from pure materials, the substitutes of oleomargarine is not challenged. The only question at issue is: Shall or shall not oleomargarine be colored and sold in the semblance of yellow butter?' Using the words of the ex-Gov. V. W. S. Ali, who ably argued the case from a dairyman's standpoint before the Committee on Agriculture, 'It is not oleomargarine the substitute for butter that we are fighting. No, the substitute for butter. We do not care how much oleomargarine is made and sold as long as it is so manufactured as not to conflict through deception with the sale of our product. If a man prefers a mixture of lard, tallow, and cotton-seed oil to butter, there is no reason why he should not have it. We do not ask that a single ingredient that is nourishing to be omitted from the only proper substitute. We desire only to distinguish that article which may be used to imitate butter in taste, smell, grain, and consistency—we concede him all this. We only ask one thing—that there be about the product itself some characteristic by which the public can readily distinguish it from an article of food which has been known for four thousand years in the form it is now produced. We demand the distinction in color because there is no nutrition in color.

"The great consuming public are still unprotected from the imposition of unscrupulous manufacturers. The present Federal laws are obviously inadequate to correct a growing evil, and more stringent measures are demanded. Farmers and dairymen in all sections of the country believe that the bill reported by the majority of your committee, if enacted into law, will, without injustice to the honest manufacturers of oleomargarine, afford a fair and just degree of protection and give needed encouragement to the great farm industries of the country—industries that all will admit form the bed-rock foundation of our national prosperity."

"The minority of the members of the committee presented a substitute bill described as not shaped to prevent the manufacture of oleomargarine or its legitimate sale, but to prevent its fraudulent sale as butter."

"The purpose of the substitute bill, offered by the minority, is not to prevent the manufacture of oleomargarine or its legitimate sale, but to prevent it from being fraudulently sold as butter. To accomplish this end it throws such safeguards about the retail sale of the article (the only operation in which, under existing laws, it is possible for fraud to be committed) as, in our opinion, to entirely eliminate all possibility of fraud in such retail sales and compel all dealers in oleomargarine to sell it for what it really is and not for butter. The substitute offered is really an amendment to sections 3 and 6 of the existing oleomargarine law. The annual licenses for the manufacture and sale of oleomargarine ($800 for manufacturers, $400 for retailers) are not lessened, while the penalties imposed for violation of the law are materially increased." In advocating the minority measure, Mr. Foster, of Illinois, said:

"Mr. Chairman, in my judgment the bill relating to oleomargarine as reported by the majority of the Committee on Agriculture is the most unjust and vicious measure in principle ever submitted to a legislative body. To begin with, the bill is not properly named. It should be entitled 'A bill to create a butter monopoly, by throttling legitimate industry.' I can not understand, Mr. Chairman, how any fair-minded man can vote for this bill, especially when he has the alternative of voting for the entirely just and proper measure proposed by the minority of the committee."

"Let us examine briefly these two measures and see what it is they would accomplish if enacted. The majority bill on its face provides that oleomargarine shall be subject in any State to the laws of that State. Now 32 States, through their legislatures, have been prevailed upon to pass laws forbidding the manufacture and sale therein of oleomargarine colored in semblance of butter. If this bill should become a law such colored oleomargarine manufactured in other States could not be taken into and sold in those 32 States, even in the original packages. This would at once deprive oleomargarine of the larger part of
its market, and the rest of it would also be swept away by the other provision of the bill, namely, that all oleomargarine colored to resemble butter shall be taxed 10 cents a pound. In other words, this bill is solely aimed at the total and utter destruction of the oleomargarine industry.

"This is plainly evident from the wording of the bill, and what is more, it is acknowledged openly and defiantly by the promoters of the bill. Several of them have testified before the committee, and all the others might as well have done so, for their purpose is perfectly obvious. This absolutely all there is to the committee's bill—a barefaced, naked attempt to break up and ruin an industry which is just as proper and legitimate as the butter industry, and has been pronounced so by the Supreme Court of the United States and by other courts, and also by leading scientists, and by the great American public at large speaking through their representatives in Congress."

"The Supreme Court's language was, in its celebrated decision of 1898, the Schollenberger case, that 'oleomargarine had become a proper subject of commerce among the States and foreign countries.' Yet in the face of this decision of our highest court it is now coolly proposed by the promoters and sponsors of this bill to wipe out the entirely proper and legitimate industry of the manufacture and sale of oleomargarine. And why? This is not stated in the bill; but in the reports and remarks on the subject oleomargarine is referred to as an 'adulterated article of food,' and a 'deceitful article of food.'"

"The charge of adulteration, Mr. Chairman, is absolutely false. The ingredients of oleomargarine are as pure and wholesome as the ingredients of butter. They have been so characterized by dozens of the highest scientific authorities in the country, as is well known by everybody—by such men as Prof. Chandler, of Columbia University; Prof. Barker, of the University of Pennsylvania; Prof. Johnson of Yale University; Prof. Atwater and Prof. Wiley, of the United States Agricultural Department; and by many others as eminent."

"The article has been in common use by millions of people for many years, and no injury has been received from it by any one, nor any complaint made about it by the dairy and butter monopolists. It is as nutritious and as wholesome as butter, and in many respects it is more so. It is as sweet and as palatable, and it is cheaper, thereby enabling those of moderate or restricted means to obtain a perfectly satisfactory substitute for butter at a price within their ability to pay. And now these butter monopolists would deny to thousands—I might say to millions—of poor people the use of this, a perfectly pure and healthful substitute, on the false charge of adulteration. They make a great ado with their sneers about 'hog fat,' but, Mr. Chairman, it is not the oleomargarine men, but the butter men, who are showing a disposition to 'hog' it in this competition."

"Coming now to the charge of deceit, what do they mean by that? Much has been said about it by the distinguished gentleman from Vermont, and what is meant by deceit? If it is meant that the manufacturers and sellers of oleomargarine practise any deceit in the disposing of oleomargarine as oleomargarine, that charge is as false as the charge of adulteration; but if it is meant that the adulterated and dishonest dealers sell oleomargarine as butter, that, of course is deceit, and the friends of oleomargarine are just as anxious as the friends of butter that it should be punished and put a stop to. No doubt much of that sort of deceit has been practiced in various parts of the country from time to time, and that is in reality the only complaint made against the present oleomargarine law that will hold water at all."

"Now, the friends of the pending bill propose to prevent this deceit, not by punishing those who are guilty of it, nor by preventing them from having any opportunity hereafter to pursue it, but—no—but by proscribing the whole oleomargarine industry! That is very much, Mr. Chairman, like curing a man's cough by cutting his head off."

"The friends of the minority or substitute bill, on the other hand, earnestly urge the members of this body and the public at large to examine this measure and judge of it fairly and impartially. If examined in this spirit the substitute bill will certainly convince anybody and everybody that it covers fully this point of 'deceit,' which is the only valid point against oleomargarine, and that it provides fully for the prevention and punishment of those who are guilty of deceit in the premises."

"By the terms of this substitute bill each 1 and 2 pound package is made an original package, and retail dealers in oleomargarine shall sell only the original package to which the tax-paid stamp is affixed. In that way, Mr. Chairman, every separate piece of oleomargarine exposed or offered for sale would bear its title on its face and would be known to all men for what it really was. What more than this could be asked by any reasonable man? Here is oleomargarine, already recognized and defined by our Supreme Court as a lawful article of commerce between the States, and here are those who manufacture and sell it, ready and willing and anxious to manufacture and sell it for what it really is, and to stamp its proper name on each and every package of it."

"And here, on the other hand, are the butter monopolists, who are hurt by its sale, and who say, 'No; we will not let oleomargarine be sold at all—we will crush it out of existence.' For that, Mr. Chairman, is what they will do if they can pass their bill. They will impose a prohibitory tax of 10 cents a pound on oleomargarine, which would raise its price to a level where nobody could afford to buy it; and, more than this, they will forbid it to be sold in 32 States of the Union at any price.

"The measure of the majority of the Committee on Agriculture was amended and passed Feb. 12. In the Senate the rival methods of dealing with the matter, advocated in the House, were argued; and the bill was passed April 3 with 11 amendments, 10 of which the House accepted, concurring on the eleventh, after amending it. The Senate approved, and the President signed the bill, May 9, 1902. It is as follows:"

"Be it enacted, etc., That all articles known as oleomargarine, butterine, imitation, process, reconstituted, or adulterated butter, or imitation cheese, or any substance in the substance of butter or cheese not the usual product of the dairy and not made exclusively of pure and unadulterated milk or cream, transported into any State or Territory, or the District of Columbia, and remaining therein for use, consumption, or storage therein, shall, upon the arrival within the limits of such State or Territory or the District of Columbia, be and remain subject to the effect of the laws of such State or Territory or the District of Columbia enacted in the exercise of its police powers to the same extent and in the same manner as though such articles or sub-
stances had been produced in such State or Territory or the District of Columbia, and shall not be sold, offered for sale, or otherwise in-
troduced therein in original packages or other-
wise.

"Sec. 2. That the first clause of section 3 of an act entitled 'An Act defining butter, also imposing a tax upon and regulating the manufacture, sale, importation, and exportation of oleomargarine,' approved Aug. 2, 1886, be amended by adding thereto after the word 'oleomargarine,' at the end of said clause, the following words:

"And any person that sells, vends, or furnishes oleomargarine for the use and consump-
tion of others, except to his own family table without compensation, who shall add to or mix with such oleomargarine any artificial coloration that causes it to look like butter of any shade of yellow, shall also be held to be a manufacturer of oleomargarine within the meaning of said act, and subject to the provisions thereof.

"Section 3 of said act is hereby amended by adding thereto the following words:

'And sections 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, and 3243 of the Revised Statutes of the United States are, so far as applicable, made to extend to and include and apply to the special taxes imposed by this section and to the person upon whom they are imposed.

"Sec. 3. That section 8 of an act entitled 'An Act defining butter, also imposing a tax upon and regulating the manufacture, sale, importation, and exportation of oleomargarine,' approved Aug. 2, 1886, be, and the same is hereby, amended so as to read as follows:

"Sec. 8. That upon oleomargarine which shall be manufactured and sold, or removed for con-
sumption or use, there shall be assessed and col-
clected a tax of 10 cents per pound, to be paid by the manufacturer thereof; and any fractional part of a pound in a package shall be taxed as a pound: Provided, When oleomargarine is free from artificial coloration that causes it to look like butter of any shade of yellow said tax shall be imposed in a tax of 1 cent per pound, by which this section shall be represented by coupon stamps; and the provisions of existing laws govern-
ing the engraving, issue, sale, accountability, effect, inspection, marking, and destruction of tobacco and snuff, as far as applicable, are hereby made to apply to stamps provided for by this section.

"Sec. 4. That for the purpose of this act 'butter' is hereby defined to mean an article of food as defined in 'An Act defining butter, also imposing a tax upon and regulating the manu-
facture, sale, importation, and exportation of oleomargarine,' approved Aug. 2, 1886; that 'adulterated butter' is hereby defined to mean a grade of butter produced by mixing, reworking, rechurning in milk or cream, refining, or in any way producing a uniform, purified, or improved product from different lots or parcels of melted or unmelted butter or butter fat, in which any acid, alkali, chemical, or any substance whatever is introduced or used for the purpose or with the effect of deodorizing or removing therefrom ranc-
idity, or any butter or butter fat with which there is mixed any substance foreign to butter as herein defined, with intent or effect of cheapening in cost the product or any butter in the manufacture or manipulation of which any pro-
cess is used for the purpose of or effect of causing the absorption of abnormal quantities of water, milk, or cream; that 'process butter' or 'renovated butter' is hereby defined to mean but-
ter which has been subjected to any process by which it is melted of being introduced to resemble genuine butter, always excepting 'adulterated butter' as defined by this act.

"That special taxes are imposed as follows:

"Manufacturers of process or renovated butter shall pay $50 per year and manufacturers of adulterated butter shall pay $500 per year. Every person who engages in the production of process or renovated butter or adulterated butter as a business shall be considered to be a manu-
facturer thereof.

"Wholesale dealers in adulterated butter shall pay a tax of $480 per annum. Every person who sells adulterated butter in less quantities than 10 pounds at one time shall be regarded as a retail dealer in adulterated butter.

"Every person who sells adulterated butter shall be regarded as a dealer in adulterated butter. And sections 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, and 3243 of the Revised Statutes of the United States are, so far as applicable, made to extend to and include and apply to the special taxes imposed by this section and to the person upon whom they are imposed.

"That every person who carries on the business of a manufacturer of process or renovated butter or adulterated butter without having paid the special tax therefor, as required by law, shall, besides being liable to the payment of the tax, be fined not less than $1,000 and not more than $5,000; and every person who carries on the busi-

ness of a dealer in adulterated butter without having paid the special tax therefor, as required by law, shall, besides being liable to the payment of the tax, be fined not less than $500 nor more than $500 dollars for each offense.

"That every manufacturer of process or reno-
vated butter or adulterated butter shall file with the collector of internal revenue of the district in which his manufactory is located such notices, inventories, and bonds, shall keep such books and render such returns of material and products, shall put up such labels as subdivided his factory, and conduct his business under such surveillance of officers and agents as the Com-
misisoner of Internal Revenue, with the approval of the Secretary of the Treasury, may require. But the bond required of such manufac-
turer shall be with sureties satisfactory to the collector of internal revenue, and in a penal sum of not less than $500; and the sum of said bond may be increased from time to time and additional sureties required at the discretion of the collector or under instructions of the Com-
misisoner of Internal Revenue.

"That all adulterated butter shall be packed by the manufacturer thereof in firkins, tubs, or other wooden packages not before used for that purpose, each containing not less than 10 pounds, and marked, stamped, and branded as the Com-
misisoner of Internal Revenue, with the approval of the Secretary of the Treasury, shall prescribe; and all sales made by manufacturers of adul-
terated butter shall be in original stamped pack-
ages.

"Dealers in adulterated butter must sell only original or from original stamped packages, and when such original stamped packages are broken the adulterated butter sold from same shall be placed in suitable wooden or paper packages, which shall be marked and branded as the Com-
misisoner of Internal Revenue, with the approval of the Secretary of the Treasury, shall prescribe.
Every person who knowingly sells or offers for sale, or delivers or offers to deliver, any adulterated butter in any other form than in new wooden or paper packages as above described, or who packs in any package any adulterated butter in either such a manner as may be prescribed by the Secretary of Agriculture, and no process or renovated butter shall be shipped or transported from its place of manufacture into any other State or Territory of the District of Columbia, or to any foreign country, until it has been marked as provided in this section. The Secretary of Agriculture shall make all needful regulations for carrying this section into effect, and shall cause to be ascertained and reported from time to time the quantity and quality of process or renovated butter manufactured, and the character and the condition of the material from which it is made. And he shall have power to ascertain whether or not materials used in the manufacture of said process or renovated butter are deleterious to health or wholesome in the finished product, and in case such deleterious or wholesome materials are found to be used in product intended for exportation or shipment into other States or in the course of exportation, or in the possession of exporters, he shall have power to confiscate the same. Any person, firm, or corporation violating any of the provisions of this section shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than $50 nor more than $500 and by imprisonment not less than one month nor more than six months, or by both said punishments, in the discretion of the court.

Sec. 6. That wholesale dealers in oleomargarine, process, renovated, or adulterated butter shall keep such books and render such returns in relation thereto as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may, by regulation, require; and such books shall be open at all times to the inspection of any internal-revenue officer or agent. And any person who wilfully violates any of the provisions of this section shall for each such offense be fined not less than $50 and not exceeding $500, and imprisoned not less than thirty days nor more than six months.

Sec. 7. This Act shall take effect on the 1st day of July, 1902.

The Congress likewise passed, and the President approved, July 1, 1902, an act "to prevent the false branding or marking of food and food products, a tax upon and regulating the manufacture, sale, importation, and exportation of oleomargarine," approved Aug. 2, 1886, shall apply to manufacturers of 'adulterated butter' to an extent necessary to enforce the marking, branding, identification, and regulation of the exportation and importation of adulterated butter.

Sec. 5. All parts of an act for an inspection of meats for exportation, approved Aug. 30, 1890, and of an act to provide for the inspection of live cattle, hogs, and the carcasses and products thereof which are the subjects of interstate commerce, approved March 3, 1891, and of an amendment thereto approved March 2, 1895, which are applicable to the subjects and purposes described in this section shall apply to process or renovated butter. And the Secretary of Agriculture is hereby authorized and required to cause a rigid sanitary inspection to be made, at such times as he may deem proper or necessary, of all factories and storehouses where process or renovated butter is manufactured, packed, or prepared for market, and of the products thereof and materials going into the manufacture of the same. All process or renovated butter and the packages containing the same shall be marked with the words 'Renovated Butter' or 'Process Butter' and by such other marks, labels, or brands and in such manner as may be prescribed by the Secretary of Agriculture, and no process or renovated butter shall be shipped or transported from its place of manufacture into any other State or Territory of the District of Columbia, or to any foreign country, until it has been marked as provided in this section. The Secretary of Agriculture shall make all needful regulations for carrying this section into effect, and shall cause to be ascertained and reported from time to time the quantity and quality of process or renovated butter manufactured, and the character and the condition of the material from which it is made. And he shall have power to ascertain whether or not materials used in the manufacture of said process or renovated butter are deleterious to health or wholesome in the finished product, and in case such deleterious or wholesome materials are found to be used in product intended for exportation or shipment into other States or in the course of exportation, or in the possession of exporters, he shall have power to confiscate the same. Any person, firm, or corporation violating any of the provisions of this section shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than $50 nor more than $500 and by imprisonment not less than one month nor more than six months, or by both said punishments, in the discretion of the court.
CONGRESS. (INTERPRETING PENSION LAW—PROTECTION OF THE PRESIDENT.)

INTERPRETING PENSION LAW.—A joint resolution was passed by the Congress and approved by the President on the 1st of July, 1890, creating the act of June 27, 1890. It is as follows:

"Resolved by the Senate and House of Representaties of the United States of America in Congress assembled, That the act approved June 27, 1890, entitled 'An Act granting pensions to soldiers and sailors who are incapacitated for the performance of manual labor, and providing for pensions to widows, minor children, and dependent parents,' is construed and held to include all persons and the widows and minor children of all deceased persons, subject to the limitations of said act, who served for ninety days in the military or naval service of the United States during the late war of the rebellion and who have been honorably discharged therefrom, and section 4716, Revised Statutes United States, is amended accordingly: Provided, however, That the foregoing shall not apply to those who served in the First, Second, Third, Fourth, Fifth, and Sixth Regiments United States Volunteer Infantry, who had a prior service in the Confederate army or navy and who enlisted in said regiments while confined as prisoners of war under a stipulation that they were not to engage under the laws of the United States, nor to those who, having had such prior service, enlisted in the military or naval service of the United States after the 1st day of January, 1863.

"SEC. 2. That in the administration of the pension laws any enlisted man of the army, including regulars, volunteers, and militia, or any appointed or enlisted man of the navy, or who was honorably discharged from the last contract of service entered into by him during the late war of the rebellion, shall be held and considered to have been honorably discharged from all similar contracts of service previously entered into by him with the United States during said war: Provided, That such enlisted or appointed man served not less than six months under said last enlistment or appointment, that his entire service under said last enlistment or appointment was faithful, and that he did not receive by reason of said last enlistment or appointment any bounty or gratuity other than from the United States in excess of that to which he would have been entitled if he had continued to serve faithfully until honorably discharged under any contract of service previously entered into by him, either in the army, navy, or marine corps, during the war of the rebellion.

PROTECTION OF THE PRESIDENT.—There was much popular discussion of this theme, as the assassination of President McKinley brought home to the people once more the danger to our Chief Magistrate, not so much from treasurable conspiracy as from criminal fools and fanatics. The Congress early in the session undertook the task of protecting the legislation. The Senate passed a bill making it a capital crime to kill or attempt to kill the President, or any official in line of succession to the presidency, or any sovereign or chief magistrate of a foreign country; setting a penalty of twenty years' imprisonment on instigating, advising, or counseling the killing of any of these persons, or conspire for the death of any of them; and proposing imprisoning at hard labor for one threatening or advising such assassination, by spoken, written, or printed words. The Senate bill also provided for a presidential body-guard of regular troops. The House of Representatives passed a substitute by way of amendment to this measure. It

struck out the provision for a military body-guard, drew the distinction that the President, those in line of succession, and the representatives of foreign governments must not be assassinated or assaulted while engaged in the performance of official duties to give the Federal courts jurisdiction over the crime, and added provisions against the general profession or teaching of anarchy. There was no report made by the Conference Committee appointed to harmonize these differences.

RECIPROCITY WITH CUBA.—This policy engaged much of the attention of the Administration, brought on heated discussion in Congress, and became a subject of sharp political controversy in the press. It is understood that President McKinley promised reciprocal trade advantage to Cuba in consideration of the adoption of the Platt amendment by the Cuban constitutional convention; and President Roosevelt urged the concession in his annual message. The Ways and Means Committee of the House of Representatives framed a bill to allow an importation of 20 per cent. on all Cuban imports, on condition that the Cuban Government adopt the immigration and contract labor laws of the United States, the Public Land laws, and the self-executing of the conditions and the operative effect of the law. The Republican majority in the committee could not act together on this bill, and it was reported through the hands of some of the Democratic minority. Republican conferences were held on the subject, and it was found that there was strong opposition to the bill within the dominant marine corps; the difficulty was in the sugar-growing interests in this country; and a serious blow was dealt to the measure when the House adopted the following amendment to the bill, offered by Page Morris, of Minnesota, April 18:

"And upon the making of said agreement, and the issuance of said proclamation, and while said agreement shall remain in force, there shall be levied, collected, and paid, in lieu of the duties thereon now provided by law on all sugars above No. 16 Dutch standard in color, and on all sugar which has gone through the process of re- imported into the United States, 1.825 cent per pound."

This amendment, technical and harmless looking as it is, touched the highly sensitive point, as reported, disturbed the relation between raw sugar and refined sugar established in the existing tariff, and this amendment aimed at restoring the equilibrium, so that the reciprocity should not be at the expense of the American sugar-growers altogether, but also at the expense of the refiners. It was adopted by a vote of 104 yes to 111 nays; and the measure was then passed.

The following day Mr. Teller, of Colorado, offered in the Senate a resolution to investigate the relation of the Sugar Trust to the proposal to reduce the tariff on raw sugar and the rumor that American capitalists have secured large holdings in the Cuban sugar plantations. June 16, he offered a resolution for the investigation of the expenditures of money from Cuban funds to promote reciprocity. The result was to cast suspicion on the reciprocity measure. The Republican Senators, after conferring upon a substitute making it a condition of proclaiming reciprocity that it be proved the Sugar Trust is not a party at interest; but it was thought best to abandon the bill for the action and depend upon the negotiation of a reciprocity treaty.
June 13, the President sent to the Congress the following message on the subject:

To the Senate and House of Representatives:

I deem it important before the adjournment of the present session of Congress to call attention to the following expression in the message which, in the discharge of the duty imposed upon me by the Constitution, I sent to Congress on the first Tuesday of December last:

"Elsewhere I have discussed the question of reciprocity. In the case of Cuba, however, there are weighty reasons of morality and of national interest which could be held to have a peculiar application, and I most earnestly ask your attention to the wisdom, indeed to the vital need, of providing for a substantial reduction in the tariff duties on Cuban imports into the United States. Cuba has in her Constitution affirmed what we desired, that she should stand in international matters in closer and more friendly relations with us than with any other power, and we are bound by every consideration of honor and expediency to pass commercial measures in the interest of her material well-being and safety."

This recommendation was merely giving practical effect to President McKinley's words, when, in his messages of Dec. 5, 1898, and Dec. 5, 1899, he said:

"It is important that our relations with this people (of Cuba) shall be of the most friendly character and our commercial relations close and intimate. We have in our relations with Cuba a trust, the fulfillment of which calls for the sternest integrity of purpose and the exercise of the highest wisdom. The new Cuba, yet to arise from the ashes of the past, must needs be bound to us by ties of singular intimacy and strength if its enduring welfare is to be assured. The greatest blessing which can come to Cuba is the restoration of her agricultural and industrial prosperity."

Yesterday, June 12, I received, by cable from the American minister in Cuba, a most earnest appeal from President Palma for "legislative relief because the tariff is too high and [his] country financially ruined."

The granting of reciprocity with Cuba is a proposition which stands entirely alone. The reasons for granting reciprocity with any other nation, and are entirely consistent with preserving intact the protective system under which this country has thriven so marvelously. The present tariff law was designed to promote the adoption of such a reciprocity treaty, and expressly provided for a reduction not to exceed 20 per cent. upon goods coming from a particular country, leaving the tariff rates on the same articles unchanged as regards all other countries. Objection has been made to the granting of the reduction on the ground that the substantial benefit would not go to the agricultural producer of sugar, but would inure to the American sugar-refiners. In my judgment provision can and should be made which will guarantee us against this possibility: without having recourse to a measure of doubtful policy, such as a bounty in the form of a rebate.

The question as to which, if any, of the different schedules of the tariff ought most properly to be revised does not enter into this matter in any way or shape. We are concerned with getting legally how to use a reciprocal arrangement with Cuba. This arrangement applies to all the articles that Cuba grows or produces. It is not in our power to determine what these articles shall be; and any discussion of the tariff as it affects special schedules, or countries other than Cuba, is wholly aside from the subject-matter to which I call your attention.

Some of our citizens oppose the lowering of the tariff on Cuban products, just as three years ago they opposed the admission of the Hawaiian Islands, lest free trade with them might ruin certain of our interests here. In the actual event their fears proved baseless as regards Hawaii, and their apprehensions as to the damage to any industry of our own because of the proposed measure of reciprocity with Cuba seem to me equally baseless. In my judgment no American industry will be hurt, and many American industries will be benefited by the proposed action.

It is to our advantage as a nation that the growing Cuban market should be controlled by American producers.

The events following the war with Spain and the prospective tariff and economic relations with Cuba will render it certain that we must take in the future a far greater interest than hitherto in what happens throughout the West Indies, Central America, and the adjacent coast and islands. We expect Cuba to treat us on an exceptional footing politically, and we should put her in the same exceptional position economically. The proposed action is in line with the course which we have pursued as regards all the islands with which we have been brought into relations of varying intimacy by the Spanish War. Porto Rico and Hawaii have been included in all our tariff lines, to their great benefit as well as ours, and without any of the feared detriment to our own industries. The Philippines, which stand in a different relation, have been given substantial tariff concessions.

Cuba is an independent republic, but a republic which has assumed certain special obligations as regards her international position in compliance with our request. I ask for her certain special economic concessions in return, these economic concessions to benefit us as well as her. There are few brighter pages in American history than the page which tells of our relations with Cuba during the past four years. On her behalf we waged a war, of which the mainspring was generous indignation against oppression, and we have kept faith with her. It is in my judgment that we will complete in the same spirit the record so well begun, and show in our dealings with Cuba that steady continuity of policy which it is essential for our nation to establish in foreign affairs if we desire to play well our part as a world power.

We are a wealthy and powerful nation; Cuba is a young republic, still weak, who owes to us her birth, whose whole future, whose very life, must depend on our attitude toward her. I ask that we help her as she struggles upward along the painful and difficult road of self-imposed independence. I ask this aid for her because she is weak, because she needs it, because we have already aided her. I ask that open-handed help, of a kind which a self-respecting people can accept, be given to Cuba, for the very reason that we have given her such help in the past.

Our soldiers fought to give her freedom. For three years our representatives, civil and military, have toiled unceasingly, facing disease of a peculiarly sinister and fatal type with patient and uncomplaining fortitude, to teach her how to use a reciprocal arrangement with Cuba. This arrangement applies to all the articles that Cuba grows or produces. It is not in our power to determine what these articles shall be; and any discussion of the tariff as it affects special schedules, or countries other than Cuba, is wholly aside from the subject-matter to which I call your attention.
wise judgment, and such single-minded devotion to the country's interests. Now, I ask that the Cubans be given all possible chance to use to the best advantage the freedom of which Americans have such right to be proud and for which so many American lives have been sacrificed.

THEODORE ROOSEVELT.

WHITE HOUSE, June 15, 1906.

A Senatorial Sensation.—The quarrel between Senator Tillman and Senator McLaury, both of South Carolina, after many dramatic incidents, came to a fight on the floor of the Senate; and perhaps a record of the session requires an account of the affair. Mr. Tillman, on Feb. 22, 1902, in discussing the Philippine tariff bill, reviewed the contest over the ratification of the treaty of Paris, reverted to the influence which Mr. Bryan exerted to procure the necessary votes, and declared it insufficient to control the Democratic Senators. The following colloquy then took place:

Mr. Tillman: But with all Mr. Bryan's influence—and it was very great, because it was recognized broadly—and with the nominee of his party—he did not and could not persuade enough men here to give the necessary votes. After every man whom Mr. Bryan could influence had been induced, and some found out, and some still lacked votes, and you knew it. You know how you got them.

Mr. Spooner: How did we get them?

Mr. Tillman: I say you know how you got them.

Mr. Spooner: I do not know how we got them. I do not know that any man voted for that treaty except in obedience to his convictions. Does the Senator know any different?

Mr. Tillman: I only know that in a court where a senator would be convicted on circumstantial evidence, some men.

Mr. Spooner: Does the Senator impeach any Senator? Let him name him. I do not impeach any Senator, nor do I know any ground for impeaching any.

Mr. Tillman: I have reason to believe from the circumstantial evidence and from things that have been told to me in confidence by men on the other side that improper influences were used.

Mr. Spooner: Name the man. That is due to the country, and due to the man whom you suspect, and by innuendo charge. Who was it? I will answer for himself if he is still a member of this body.

Mr. Tillman: Whom do you mean? I cannot name the man who gave me the information.

Mr. Spooner: Whoever you mean.

Mr. Tillman: I cannot give the name of the man who gave me the information, because he gave it to me in confidence.

Mr. Spooner: Oh, in confidence. A man who would impeach another in confidence is a coward. Mr. Tillman: Cowardice in that case does not rest on my shoulders.

Mr. Spooner: The Senator turned to me. If the Senator knows of any member of this body who voted under corrupt influences for that treaty, name him.

Mr. Tillman: I can not prove it.

Mr. Spooner: Well, I would not say it.

Mr. Tillman: But I can prove this—

Mr. Spooner: I would not say it.

Mr. Tillman: I can prove this: that the patronage of a State has been given to a Democrat who voted for the treaty.

Mr. Spooner: What State?

Mr. Tillman: South Carolina.

Mr. Spooner: Fight it out with your colleague.

Mr. Tillman: I am ready.

Mr. Spooner: Yes, I am ready and he is ready.

Mr. Tillman: Let him—

Mr. Spooner: He is not here—

Mr. Tillman: He has not shown his readiness.

Mr. Spooner: But he will be.

The President pro tempore: The occupants of the galleries must remember that any marks of approbation or disapproval are not permitted under the rules of the Senate, and if there is a violation of the rule the Chair will be obliged to have the galleries cleared.

Mr. Tillman: I will state that after having made a speech in this body two weeks before, replete with cogent arguments and eloquence, against the ratification of the treaty, and after having told us in confidence that he would not vote for it, he did; and since then he has been adopted by the Republican caucus and put upon committees as a member of that party, and has controlled the patronage in South Carolina. I did not expect to bring this in in this way, but I do not dodge or flinch from any responsibility anywhere.

After Mr. Tillman had closed his speech, Mr. McLaury, who had returned to the Senate chamber, rose; and the Record reports what follows:

Mr. McLaury, of South Carolina: Mr. President, I rise to a question of personal privilege. During my absence a few moments ago from the Senate Chamber, in attendance upon the Committee on Indian Affairs, the gentleman who has just taken his seat, the Senator who has just taken his seat, said that improper influences had been used in changing the vote of somebody on the treaty, and then went on later and said that it applied to the Senator from South Carolina, who had been given the patronage in that State. I think I get the sense of the controversy. I desire to state, Mr. President—I would not use as strong language as I intend to had I not, soon after the Senate met, replied to these insinuations and said that they were untrue—I now say that that statement is a willful, malicious, and deliberate lie.

[At this point Mr. Tillman advanced to Mr. McLaury, of South Carolina, and the two Senators met in a personal encounter, when they were separated by Mr. Layton, the acting assistant doorkeeper, assisted by several Senators sitting nearby.]

Mr. Gallingher: Mr. President, I ask that the doors be closed.

The President pro tempore: The Senate will be in order. Senators will please resume their seats.

Mr. Pritchard: Mr. President, if the Senator from South Carolina has concluded——

Mr. McLaury, of South Carolina: Mr. President, I will now proceed with my remarks, which were so unceremoniously interrupted——

Mr. Teller: Mr. President, I call the Senator from South Carolina to order.

Mr. McLaury, of South Carolina: Which one of the Senators?

Mr. Teller: This one, and the other one, too, for that matter.

Mr. Foraker: Mr. President, I join in that. Surely there is some way of protecting the dignity of this body.

Mr. Burrows: Certainly; the Senate can not let this thing pass, Mr. President.

Mr. Gallingher: Mr. President, I asked that the doors might be closed.

Mr. Foraker: Mr. President, I move that the Senate go into executive session.
The President pro tempore: The Senator from Ohio moves that the Senate proceed to the consideration of executive business.

The motion was agreed to; and the Senate proceeded to the consideration of executive business. After two hours and twenty minutes the doors were reopened.

In executive session a resolution was adopted unanimously declaring both South Carolina Senators in contempt and referring the matter to the Committee on Privileges and Elections. In open session the Senate adopted a resolution allowing the Senators, though in contempt, to make explanation. This is what took place:

Mr. Tillman: Mr. President, I have always esteemed it a high honor and privilege to be a member of this body. I had never had any legislative experience when I came here, and my previous service as Governor of South Carolina for four years had unfitted me in a measure to enter this august assembly with that dignity and regard—proper regard, I will say—for its traditions and habits and rules that is desirable.

I have been here seven years. I have in that time tried to be considered in with a little more catholicity of spirit than I did when I came here. I have found a great many people here in whose personal integrity and honor and regard for their obligations as politicians I have implicit confidence; but I have seen so much of partisanship, I have seen so much of what I consider slavish submission to party domination, that I confess I have felt the difficulty that as a judge I judge men who in one aspect appeared to be so high and clean and honorable and in another appeared more or less despicable. I say this because of the fact that one of the Senators has seen fit to allude to some matters that occurred in the debate this morning.

I now want to say that, so far as any action of mine has caused any Senator here, or the Senate as a body, or the people of the United States to feel that I have been derelict and have not shown that courtesy and proper observance of the rules of this body, I regret it; I apologize for it. I was ready to do that two minutes after I had acted; but under the provocation, which was known to all of you, I could not have acted otherwise than I did; and while I apologize to the Senate and am sorry that it has occurred, I have nothing more to say.

Mr. McLaurin, of South Carolina: Mr. President. I did not realize that I was in contempt of the Senate. I do not think now, if my words are read in the Record, that I was, but, at the same time, as the Senate has ruled that I am in contempt of this honorable body, I beg leave to apologize.

I desire to say, Mr. President, that I have been very sorely and severely tried. I was in attendance on the Committee on Indian Affairs when I received a message from a friend in the Senate that my presence was needed here.

The history of the vote on the Spanish treaty is known to all of you. There have been statements made in the newspapers and insinuations that I had been influenced by improper motives in connection with my vote on that treaty. Knowing in my own soul, and knowing that God in heaven also knows that it was false, when I was told that it was centered down to me, I was so outraged by what I considered a most brutal assault upon my honor as a man, and especially in view of the fact that at the beginning of the session, after the action of my party associates, I made a most careful and deliberate statement explaining all these matters, I did not feel as a man that I could ever hold my head up again if I did not resent it in the place where it was delivered, in the strongest and most forcible terms that I could employ.

With that, Mr. President, I am done, except I have this to say: If there is any more talk of that kind or any more—

Mr. Patterson: I beg the Senator to refrain.

Mr. McLaurin, of South Carolina: I will refrain, Mr. President.

Pending further action on the matter, Mr. Tillman presented a protest to the Senate, which was received by that body, Feb. 27. He declared himself ready to submit to whatever action the Senate might take to vindicate its own rights and dignity; but he protested against mere delay as depriving South Carolina of its right as a State to be represented in that body. On the following day the committee in charge of the matter reported a resolution of censure against Senators Tillman and McLaurin, which was adopted by a vote of 54 yeas to 12 nays. Its adoption, under the terms of the resolution, cleared both gentlemen of contempt.

Miscellaneous.—The Senate passed a ship subsidy bill early in the session, but it was not sine die, as considered in the House of Representatives.

The House passed a measure admitting Oklahoma, Arizona, and New Mexico into the Union as States; but the Senate got no further than to make it a Select Committee to consider the question. The House also passed an immigration bill, which the Senate did not take up.

Two treaties were ratified—the modified agreement with Great Britain on the Lusitania Canal, and the agreement with Denmark for the purchase of the Danish West Indies.

The following acts were passed:

1. What is known as the omnibus public building act. It bears the title "An Act to increase the limit of cost of certain public buildings, to authorize the purchase of sites for public buildings, to authorize the erection and completion of public buildings, and for other purposes"; and it deals with public buildings in 186 towns of the United States.

2. An act authorizing the President to reserve public lands and buildings on the island of Porto Rico for public uses, and granting other public lands and buildings to the Government of Porto Rico.

3. An act authorizing the Commissioner of Internal Revenue to return bank checks, drafts, and certificates of deposit, and orders for the payment of money having impressed stamps thereon, to the owners thereof.

4. An act for the allowance of certain claims for property taken for military purposes within the United States during the war with Spain, reported by the Secretary of War in accordance with the requirements of an act contained in the sundry civil appropriation act, approved June 6, 1900, authorizing and directing the Secretary of War to investigate just claims against the United States for private property taken and used in the military service within the limits of the United States.

5. An act authorizing the adjustment of rights of settlers on the Navajo Indian Reservation, Arizona.

6. An act to provide for funding taxes paid upon legacies and bequests for uses of a religious, charitable, or educational character, for the encouragement of art, etc., under the act of June 13, 1898.

7. An act to amend an act to prohibit the passage of special or local laws in the Territories, and to limit the Territorial indebtedness.

8. An act to provide for the homesteads in the Ute Indian Reservation in Colorado.
An act to accept, ratify, and confirm a proposed monument at 207
by the Kansas or Kaw Indians of Oklahoma.

An act relating to the transportation of dutiable merchandise at the seaports of Tacoma and Seattle.

An act to provide for the transfer of the title to the military reservation at Baton Rouge to the Louisiana Agricultural and Mechanical College.

An act to confer jurisdiction on the Court of Claims to render judgments for the principal and interest in actions to recover duties collected by the military authorities of the United States upon articles imported into Porto Rico from the several States between April 11, 1899, and May 1, 1900.

An act to provide for the sale of the unsold portion of the Umatilla Indian Reservation.

An act to vest in the Spanish Treaty Claims Commission certain powers possessed by circuit and district courts of the United States.

An act for the allowance of certain claims for stores and supplies reported by the Court of Claims under the provisions of the act approved March 3, 1883, and commonly known as the Bowman Act.

An act to amend the act of May 12, 1900, authorizing the Commissioner of Internal Revenue to redeem or make allowance for internal-revenue stamps.

An act reserving from the public lands in the State of Oregon, as a national park for the benefit of the people of the United States, and for the protection and preservation of the game, fish, timber, and all other natural objects therein, a tract of 249 square miles, including Crater Lake.

An act to regulate the sale of virulens, serums, toxins, and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes. It provides that "no person shall sell, barter, or exchange, or offer for sale, barter, or exchange in the District of Columbia, or send, carry, or bring for sale, barter, or exchange from any State, Territory, or the District of Columbia into any State, Territory, or the District of Columbia, or from any foreign country into the United States, or from the United States into any foreign country, any virus, therapeutic serum, toxin, antitoxin, or analogous product applicable to the prevention and cure of diseases caused by such virus, serum, toxin, antitoxin, or product has been propagated and prepared at an establishment holding an unsuspended and unrevoked license issued by the Secretary of the Treasury, under the provisions of any law or regulations made under said law to control the production, manufacture, sale, or use of such articles, or to propagate and prepare such virus, serum, toxin, antitoxin, or product for sale in the District of Columbia, or for sending, bringing, or carrying from place to place aforesaid; nor unless each package of such virus, serum, toxin, antitoxin, or product is plainly marked with the proper name of the article contained therein, the name, address, and license number of the manufacturer, and the date beyond which the contents can not be expected beyond reasonable doubt to yield their specific result."

An act to provide for the allotment of the lands of the Cherokee Nation and for the disposition of town sites therein.

An act for the relief of the citizens of the French West Indies.

An act to ratify and confirm a supplemental agreement with the Creek Indians, modifying the agreement ratified by Congress, March, 1901, in regard to the allotment of lands, descent and distribution.

An act to fix fees of juries in the United States courts.

An act to provide a commission to secure plans and designs for a monument or memorial to the memory of Abraham Lincoln.

An act to amend an act for the relief and civilizing of the Chippewa Indians in the State of Minnesota approved Jan. 14, 1889.


An act providing that the statute of limitations of the several States shall apply as a defense to actions brought in the United States courts for the recovery of lands patented in severalty to members of any tribe of Indians under any treaty between it and the United States of America.

An act to prevent any consular officer of the United States from accepting any appointment from any foreign state as administrator, guardian, or to any other office of trust, without first executing a bond, with security, to be approved by the Secretary of State.

An act to authorize the sale of part of the Mohave military reservation in the State of Nebraska.

An act for the authorization of the erection of buildings by the International Committee of the Young Men's Christian Associations on the military reservations of the United States.

An act to facilitate the procurement of statistics of trade between the United States and non-contiguous countries.

An act to prevent the sale of firearms, opium, and intoxicating liquors in certain islands of the Pacific, not under the protection of any civilized power.

An act to increase the efficiency, and change the name of the United States Marine-Hospital Service.

An act to promote the efficiency of the Revenue-Cutter service.

An act to extend the provisions, limitations, and benefits of an act entitled "An Act granting pensions to the survivors of the Indian wars of 1832 to 1842, inclusive, known as the Black Hawk war, Creek war, Cherokee disturbances, and the Seminole war," approved July 27, 1892. The measure brings into the scope of the original act Indian wars preceding 1832.

An act authorizing the Comptroller of the Currency to extend the charter of national banks twenty years.

Acts amending the following sections of the Revised Statutes: 82; 548; 658; 683; 822; 1315; 1513; 1580; 1581; 1797; 2294; 2399; 2359; 2354; 2565; 2593; 2743; 3359; 3362; 3384; 4076; 4076; 4307; 4319; 4314; 4400; 4718; 4833; 4929; 5545; 5544. Sections 1594 and 2035 were repealed.

An act for the protection of miners in the Territories.

An act for the protection of game in Alaska, not affecting, however, any law now in force in Alaska relating to the fur seal, sea otter, or any fur-bearing animal other than bears and sea lions, or preventing the killing of any game animal or bird for food or clothing by native Indians or Eskimo, or by miners, explorers, or travelers on a journey when in need of food; but the game animals or birds so killed shall not be shipped or sold, and not to be construed as preventing the collection of specimens for scientific purposes, the capture of shipment of live animals and birds for exhibition or propagation, or the export from Alaska of specimens and trophies, under such restrictions and limitations as the Secretary of Agriculture may prescribe and publish.

Acts authorizing the construction of bridges across the Arkansas river, Fort Gibson, Indian Territory, and in Arkansas; Ashley river, South Carolina; Calumet river, Cummings, Ill., and
COSTA RICA.

COSTA RICA, a republic in Central America. The Congress is a single Chamber of 21 representatives, elected for four years by an electoral college, the members of which are elected by the votes of all settler and property owners. The President is also elected for four years, and may be his own successor. Rafael Fagellas was reelected President for the term which began on May 8, 1892. Anstrito Igelias Lorente and Federico Tinoco were the Vice-Presidents. The Cabinet was composed in the beginning of 1902 as follows: Minister of the Interior, Police, and Public Works, and acting Minister of Foreign Affairs, Worship, Public Instruction, Benevolence, and Justice, Ricardo Pacheco; acting Minister of Finance, E. Truque; acting Minister of War and Marine.

Area and Population.—The area is estimated at 23,000 square miles, and the population on Feb. 18, 1892, was 243,205, comprising 122,480 males and 120,725 females. On Dec. 31, 1891, the population was officially estimated at 209,682. The number of births registered in 1900 was 10,695; deaths, 6,275. San José, the capital, has about 25,000 inhabitants.

Finances.—The revenue in 1901 was 8,700,833 colones, and expenditure 9,319,192 colones. The gold colon was adopted as the monetary unit by the act of Oct. 28, 1896, which established a gold standard at the ratio of 1 to 291, the peso being made exchangeable for the colon, which weighs 0.778 gram, 900 fine. The new currency was put into circulation on July 16, 1896, when 5,000,000 colones had been coined. There were 3,000,000 pesos of paper currency in circulation. About 1,000,000 pesos of fractional silver currency were issued, and this is legal tender up to 10 colones. Foreign gold coins are legal tender, but foreign silver coins are not.

The foreign debt, which in view of the depreciation of silver was scaled down in 1888 and again in 1897 by arrangement with the creditors, amounted on June 30, 1901, to £28,000,000 sterling, the amount in 1887 having been £26,691,300, with £2,119,512 interest in arrear. The interest on £414,000 of the capital was reduced in 1897 to 24 per cent., and on £252,000 to 3 per cent. The unpaid coupons from Jan. 1, 1895, when the Government defaulted, till April, 1897, when the new arrangement went into effect, are due and the first instalments of £25,000 a year for twenty years, £23,562 having been paid at the start. Amortization of the debt will begin in 1917 by the annual payment of £10,000. The foreign debt in 1900 amounted to 6,067,888 pesos, and the total internal debt to 6,918,072 pesos.

Commerce and Production.—Costa Rican coffee brings a high price, and lands adapted for its culture when situated near a railroad are valuable. The banana plantations on the coast are remunerative, and the cultivation of cacao is a growing industry. There are also plantations of rubber-trees. The people are industrious and frugal, but little else is grown besides these products and corn, rice, yams, and potatoes for food. There are herds of cattle and horses on the highlands valued at 12,695,065 pesos in 1897. Gold is mined by American companies, which exported $100,000 worth in 1900. The total value of imports in 1900 was $6,084,395, and of exports $6,321,192. Of the imports, 46.2 per cent. came from the United States, 27.3 per cent. from Great Britain, 13.6 per cent. from Germany, and 12.9 per cent. from other countries. Of exports, 74 per cent. were valued at $3,800,100; bananas, $1,354,390; gold and silver, $500,000; hides and skins, $1,035,330; rubber, $89,070.
CRETE.

Navigation.—The number of vessels entered and cleared at Limon and Punta Arenas during 1900 was 6,260 and 5,690. The merchant fleet of Costa Rica consisted of 2 sailing vessels, of 341 tons, and 3 steamers, of 783 tons.

Railroads, Posts, and Telegraphs.—The railroa from Limon to Alajuela, with its branches, has a length of 137 miles. The line from San José to Tiveves, 59 miles, will, when completed, establish rail communication between the Atlantic and Pacific coasts.

The number of letters and other mail-matter that passed through the post-office in 1899 was 1,172,914 in the internal and 637,163 in the foreign service.

There were 880 miles of telegraph-wire in 1899; number of despatches, 342,572. The telephonelines had a length of 200 miles.

CRETE, an island in the Mediterranean, formerly a Turkish vilayet, since Dec. 21, 1898, an autonomous province under the suzerainty of the Porte administered by a High Commissioner of England, France, Germany, Italy, and Russia. The High Commissioner is Georgios, Prince of Greece, born June 24, 1869, second son of Georgios I, King of the Hellenes. He was appointed for three years on Nov. 21, 1898, but on Dec. 21, 1898, and was reappointed on Dec. 15, 1901. The Constitution was adopted on April 28, 1899. The High Commissioner has supreme command of the military forces. The legislative body is the Boule, 64 members of which, of whom 3 are Mohammedans, are elected by universal suffrage for two years, in the proportion of 1 to 5,000 inhabitants, including 1 Moham medan, are nominated by the Prince. The electoral system provides for minority representation. The Boule sits for two months every two years. The ministers are appointed by the Prince, and take part in the discussions of the Chamber without having the right to vote. The representatives at Rome of the protecting powers are authorized by their governments to decide questions affecting the foreign relations of Crete. The Council appointed on Sept. 7, 1901, was composed as follows: Finance, J. A. Tsouderos; Interior and Public Safety, Manousos R. Koundouras; Public Instruction, Worship, Justice, and Foreign Affairs, A. D. Boreades.

Area and Population.—The island has an area of 3,226 square miles. The native population at the census of 1877, 1900, was 503,543, comprising 209,319 Greek Catholics, 33,396 Mohammedans, and 726 Jews. Compared with 1881 there were 212,254 more Greeks and 39,855 fewer Mohammedans. The number of foreigners in 1900 was 6,096, including 3,593 Hellenes and 1,701 Turks. Canes, the capital, had 21,025 inhabitants; Candia, 22,351.

Revenue.—The revenue for the year ending Aug. 31, 1901, was estimated at 6,471,860 drachmas, and the expenditure at 6,281,277 drachmas. The revenue is derived mainly from direct taxes and from public debts. The total population in 1899 was 689,486, including 29,510 drachmas for justice. The intervening powers promised to advance 4,000,000 drachmas to Crete, and Great Britain and Italy did advance 1,000,000 each in 1899. They were comparatively unaffected. They reaped an abundant grain harvest in 1902 and the grape and olive crops were excellent.

CUBA, a republic in the West Indies. By the treaty of peace at that time, the United States and Spain signed at Paris on Dec. 10, 1898, Spain relinquished the sovereignty of Cuba and the United States assumed the obligations for the protection of life and property of the United States troops, already in occupation of parts of the

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inland, replaced the Spanish garrison when it was withdrawn in December, 1898. The President of the United States appointed a military Governor-General at the head of the administration which the United States undertook to carry on pending the establishment by the Cubans of a settled Government capable of fulfilling international obligations and doing justice to the United States. The first Governor-General, was succeeded, on Dec. 20, 1899, by Brig.-Gen. Leonard Wood. On July 25, 1900, the President of the United States directed that a call be issued for the election of members of a constitutional convention to frame a Constitution for Cuba on such a basis as would insure a stable, independent Government. By order of the military Governor-General the election took place on Sept. 15, 1900, and the convention assembled at Havana on Nov. 5, 1900. Governor-General Wood informed the delegates that it was their duty to frame and adopt a Constitution adequate to secure a stable, orderly, and free Government, and to formulate the relations which, in their opinion, ought to exist between Cuba and the United States, after which the Government of the United States would doubtless take such action as would lead to a final and authoritative agreement between the people of the two countries to the promotion of their common interests. The Constitution was completed and adopted by the Convention on Feb. 11, 1901, and was signed on Feb. 21, 1901. Conditions demanded by the President and Congress of the United States were on June 12, by vote of the convention, embodied in the Constitution. These were that Cuba shall make no treaty which may place her in jeopardy of the independence of the island or any portion thereof; that no loans shall be issued unless a surplus of revenue is available for the service of such obligations; that the acts of the United States military administration were recognized as valid; that proper hygienic measures must be taken to protect public health; that the question whether the Isle of Pines belongs to the United States or to Cuba shall be referred to a Commission; and that the Cuban Constitution vests the legislative power in a Congress consisting of a Senate of 36 members, 6 from each department, and a House of Representatives having as many members as the population contains multiples of 35,000. Senators are elected by the municipalities for six years, one-third retiring every two years. Representatives are elected in separate districts for four years by universal adult male suffrage. The executive power is committed to a President, who, with the Vice-President, is elected for four years by popular suffrage through colleges of electors. Each voter ballot for only two-thirds of the electors allotted to his department. Each department has a Governor and an Assembly elected by popular suffrage for three years. Departments and municipalities have a large measure of local self-government, with power to raise revenues and contract loans. Municipal government is carried on by a mayor and an elective municipal council. Senators and representatives residing in Cuba at the time of the adoption of the Constitution may adopt Cuban citizenship at their option, and so can all Cuban-born children and persons residing in Cuba of foreign birth. The Constitution guarantees freedom of speech, of the press, and of religious worship. Prisoners can not be detained longer than twenty-four hours without judicial authority. The civil and criminal laws can be framed and amended only by Congress, which also has sole power to regulate railroads and telegraphs. Major-Gen. Leonard Wood was military Governor-General at the beginning of 1902. The first Cabinet was composed as follows: Secretary of Foreign Affairs and of the Interior, Diego Tamayo; Secretary of Agriculture, Commerce, and Industry, Perfecto Lacoste; Secretary of Justice, Varela; Secretary of Public Instruction, Varola; Secretary of Finance, Canio; Secretary of Public Works, Villan; Secretary of the Treasury, Roloff. The military commandant of the Oriental Department, with headquarters at Santiago, was Col. Samuel M. Whitls. Gonzales de Quesada was Cuban commissioner at Washington.

Area and Population.—The area of Cuba is 35,994 square miles. The population by the census of Oct. 1, 1899, was 1,572,197. The area and population of the provinces which now constitute the departments of Cuba are shown in the following table:

<table>
<thead>
<tr>
<th>PROVINCE</th>
<th>SQUARE MILES</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Havana</td>
<td>2,055</td>
<td>2,044,604</td>
</tr>
<tr>
<td>Pinar del Río</td>
<td>2,416</td>
<td>2,044,604</td>
</tr>
<tr>
<td>Matanzas</td>
<td>2,065</td>
<td>2,044,604</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>2,094</td>
<td>2,044,604</td>
</tr>
<tr>
<td>Puerto Príncipe</td>
<td>2,048</td>
<td>2,044,604</td>
</tr>
<tr>
<td>Santiago de Cuba</td>
<td>2,185</td>
<td>2,044,604</td>
</tr>
<tr>
<td>Total</td>
<td>35,994</td>
<td>1,572,197</td>
</tr>
</tbody>
</table>

In Havana province there were 187 inhabitants to the square mile; in Matanzas, 58; in Santa Clara, 47; in Pinar del Río, 34; in Santiago, 32; in Puerto Príncipe, 12. Of the total population 910,299, or 57.92 per cent., were native whites, divided into 447,373 males and 462,926 females; 142,198, or 9.05 per cent., were foreign whites, divided into 115,740 males and 26,458 females; 254,638, or 14.91 per cent., were negroes, divided into 111,898 males and 122,740 females; 270,805, or 17.21 per cent., were of mixed white and negro blood, divided into 125,500 males and 143,305 females; 14,379, or 0.87 per cent., were mulattoes, divided into 14,694 males and 163 females. Of the total population 513,205 were males and 537,592 were females. The total number of colored inhabitants was 443,848; of whom 299,197 followed agriculture, mining, or fishing, 141,936 domestic service, 93,034 manufactures, 79,427 commerce and transportation, and 8,736 the professions. The illiterates among adult male white Cubans numbered 94,301, and among the colored 78,279. Education has been compulsory since 1880.

Commerce and Production.—There were 90,000 estates in Cuba in 1891, of the total estimated value of $220,000,000, the annual rental being estimated at $17,000,000. The total value of imports in 1900 was $847,760,000, and of exports $47,643,000, and other foreigners residing in Cuba in 1891. Of the imports into the United States were $31,371,704 in value, and exports from the United States to Cuba were $286,513,813. In 1901 the imports of Cuban produce into the United States were $43,429,988, and United States exports to Cuba $23,964,801. The chief
imports of Cuban produce into the United States in 1900 were sugar for $18,245,839 and tobacco for $6,705,531, and among the exports of United States produce to Cuba were provisions for $5,214,489, iron and steel manufactures for $3,717,217, breadstuffs for $2,122,553, lumber for $2,122,553, and cattle for $2,045,710. In a special message to the Cuban Congress President Palma requested Congress to pass laws for the reestablishment and development of stock-raising, suggesting that measures be taken to stimulate private enterprise, especially by removing all duties from cows and from bulls of established breeds, stallions, and jacksasses, also for one year from fencing wire. He proposed to prohibit the slaughtering of cows fit for breeding. Of 16,000,000 acres now unproductive, more than half the area of Cuba, nearly the whole is good grazing ground, capable of supporting 4,000,000 head of stock. President Palma estimated that in the first year of his administration 400,000 cattle would arrive, the average consumption for food being 300,000. Half of those arriving he thought ought to be pastured for six months before slaughtering, insuring an addition to the national income estimated at $2,000,000, and he suggested prohibiting the slaughtering of lean cattle for three months after importation.

Railroads, Posts, and Telegraphs.—There are 950 miles of railroads, of which British companies own 551 miles. The length of telegraph lines is 2,300 miles, with 3,450 miles of wire.

Establishment of the Republic.—An electoral law was framed by a committee of the constitution convention, passed January 22, 1902, presidential elections were chosen, who, on February 24, 1902, elected Tomas Estrada Palma President of the republic and Severo Esteban Vice-President. In fulfillment of the joint resolution of the United States Congress, approved on April 20, 1898, for the recognition of the independence of the people of Cuba, demanding that the Government of Spain relinquish its authority and government in the island of Cuba and withdraw its land and naval forces from Cuba and Cuban waters, and directing the President of the United States to take such measures as the United States may deem necessary to carry into effect the resolutions of the United States to carry these resolutions into effect, the President of the United States was authorized in the army appropriation act approved on March 3, 1899, to move troops and naval forces of the United States to control the island of Cuba to its people so soon as a Government shall have been established under a Constitution which, either as a part thereof or in an ordinance appended, defines the future relations of the United States with Cuba in substantial agreement with the Platt amendment. These provisions are that the Government of Cuba shall never enter into any treaty, compact or agreement with any foreign power which will impair or tend to impair the independence of Cuba, nor in any manner authorize or permit any foreign power or powers to obtain by colonization or for military or naval purposes or otherwise by force or control over any portion of the island; that it shall not assume or contract any public debt to pay the interest upon which, and to make remittable sinking-fund provisions for the ultimate discharge of which, the ordinary revenues of the island, after defraying the current expenses of government, shall be inadequate; that it consents that the United States may exercise the right to intervene for the preservation of Cuban independence, the maintenance of Government adequate for the protection of life, property, and individual liberty, and for discharging the obligations imposed by the treaty of Paris on the United States, now to be assumed and undertaken by the Government of Cuba; that all acts of the United States in Cuba during its military occupancy be ratified and validated, and all lawful rights acquired thereunder maintained and protected; that the Government of Cuba execute and as far as necessary extend the plans already devised or other plans to be mutually agreed upon for the sanitation of the cities of the island to the end that a recurrence of epidemic and infectious diseases may be prevented, thereby assuring protection to the people and commerce of Cuba, as well as to the commerce of the Southern ports of the United States and their residents; that the Isle of Pines be omitted from the proposed constitutional boundaries of Cuba, the title thereto being left to future adjustment by treaty; that to enable the United States to maintain the independence of Cuba and to protect her people, as well as for its own defense, the Government of Cuba sell or lease to the United States lands necessary for coaling or naval stations at certain specified points to be agreed upon with the President of the United States; and that by way of further assurance the Government of Cuba embody these in a permanent treaty with the United States.

These conditions having been fulfilled, President Roosevelt in a message to Congress dated March 27, 1902, recommended measures for diplomatic and consular representation in Cuba. The people of Cuba having framed a Constitution and elected a President, preparations were made by the Secretary of War to terminate the military occupation and permit the installation of the Government of Cuba on May 20. The Cuban Senate and House of Representatives was convened by Gov. Wood on May 5 to pass on the credentials of their members, after which they officially informed the American military Governor of the election of Estrada Palma as President of the republic. President Palma selected his Cabinet on May 17 from both the Nationalist and Republican parties and included one Independent. It was composed as follows: Secretary of the Interior, Rufino Méndez; Secretary of Sanitation, the Post-Office, and the Signal Service, Diego Tamayo; Secretary of State and of Justice, Carlos Zaldío; Secretary of Agriculture, Emilio Torremendo; Secretary of Work, Manuel Luciano Diaz; Secretary of Public Instruction, Evaristo Yero; Secretary of Finance, García Montes. Gov. Wood formally transferred the government and control to President Palma and the Cuban Congress on May 20, advising them that the transfer was made on the understanding and condition that the new Government, pursuant to the appendix to the Cuban Constitution adopted by the constitutional convention on June 12, 1901, assumed the obligations which the United States had assumed with respect to Cuba by the treaty with Spain signed at Paris on Dec. 10, 1898. The judicial and subordinate executive officers appointed by the Governor of occupation continued in the discharge of their functions, except such of them as Gov. Wood had already replaced with nominees of the President-elect, and all the laws promulgated by the provisional military Government remained operative until superseded by the new Government. Gov. Wood, in the proclamation of transfer, recited the obligations imposed on Cuba in her relations with the United States by the American Congress as contained in the appendix to the Cuban Constitution of
Feb. 21, 1901, as a part of the organic law of the 
Cuban Republic. He read a message from the 
President of the Provisional Government declar- 
ing the American occupation at an end, and then lowered the American flag and raised the Cuban flag. The 
United States garrison had been gradually with- 
drawn, and the naval forces left with Gen. 
Wood. The forces of 800 of the coast-artillery, left 
to care for three batteries on the coast until these 
should be replaced by a Cuban force. The Cuban 
Congress met and proclaimed the Constitution as 
soon as the Government was installed. President 
Palm in his message to Congress on May 28 
said that the motive of the United States in 
aiding with Cuba in her fight for independence 
was purely disinterested and that Cuba is ca- 
ble of fulfilling all the obligations and promises 
she has contracted. The budget, however, should 
be prepared with care. Cattle-raising and 
encouraged and agricultural stations established to improve the methods of culture of 
sugar and tobacco, and agricultural industries of 
various kinds should be introduced. The crisis 
in the sugar industry was due to the excessive 
production of beet-sugar in Europe. An 
important remedy would be the reduction of the 
American tariff charge on sugar, to obtain which he 
devoted his efforts. If the Government would also devote attention to education and encourage the construction of railroads, he 
at the same time protecting the capital already invested in Cuba must improve cordial relations 
with all nations and secure favorable treaties of 
amity and commerce, and must also take special 
care that her relations with the United States are 
of the freest character. The Government of 
the new Cuban Republic pardoned all convicts in 
America, including the post-office officials Neely, Reeves, and Rathbone, sentenced for ten years. On Aug. 
10 Señor Terry offered his resignation as Secretary 
of Agriculture. The State Department at Wash- 
ington decided that the Isle of Pines passed under 
Cuban control when American authority over 
Cuba was withdrawn and must remain so until 
the question of its ownership is settled by treaty. 
American settlers, who have obtained half the 
grazing ground that constitutes the chief wealth 
of Cuba, are under the protection of the United States Government because 
the Cuban Government neglected to exercise any 
authority or jurisdiction. Rear-Admiral R. B. 
Becraft, who inspected the naval and 
station in the West Indies, recommended that 
the protection of United States stations 
be located at Nipe Bay and at Cienfuegos. 
By means of these the United States could 
control the passes leading to its coasts from the 
Caribbean Sea. The Cubans were not inclined to 
possess these selections except the one that the 
American naval expert considered the most 
important of all, the one in Havana harbor, com- 
mmanding the Bahama, Florida, and Yucatan 
channels and the entrance to the Gulf of Mexico. 
Although it insures the Cuban capital against 
attack without cost to Cuba and provides em- 
ployment and remuneration for many individual Cubans, they would chafe to see the United States 
flag flying in Havana harbor, to be saluted equally 
with the Cuban flag by foreign ships as they enter. It had long seemed an emblem of American 
suzerainty and a sign of their vassalage, and 
appeared to be unnecessary, since without such fortifi- 
cation station the United States could use Havana 
as a naval base in time of war. The Isle of 
Pines, having no good harbor, is valueless for 
a naval or coal station. While the American 
settlers and some of the other inhabitants peti- 
tioned for annexation for nations declaratory 
that the United States, it was asked that it be permitted to remain attached to 
Cuba. It is claimed by Cuba as an island adjacent 
away from the United States, and the House of Representa- 
tives, at the suggestion of Mr. Roosevelt, in his 
message to Congress of March 27, said that the 
commercial and political conditions in the island 
of Cuba while under the Spanish Crown afford 
little basis for estimating the local development of 
tercourse with this country under the influence 
of the new relations which have been created by 
the achievement of Cuban independence and 
which are to be broadened and strengthened in 
every proper way by conventional pacts with the 
Cubans and by wise and beneficent legislation 
aiming to stimulate the commerce between the 
Cuba and the United States. In 1889 it is to be 
fittingly accomplished. Even the 
measure of reciprocity contained in the bill before 
Congress was strongly opposed by a section of the 
party. The Republican party, by the 
decision of the party, pronounced by a major-
DENMARK. 213

ity vote of 54 in the caucus. Early relief was necessary to enable the Cuban planters to market their crop. When a majority of Republicans in the Senate refused to sanction the reciprocity measure, and it could not therefore be put to a vote, President Roosevelt, on June 12, sent a special message to Congress in response to an appeal from President Palma for legislative relief before it is too late and Cuba is financially ruined. Mr. Roosevelt considered that the Cuban question stood alone, and did not raise the question of tariff revision; nor would any American industry be injured, but many would benefit, and the growing Cuban market should be controlled by American producers. If Cuba was expected to treat the United States on an exceptional footing politically, she should be put economically in an exceptional position in relation to the United States. To give all possible chance to the young republic to use to advantage the freedom for which many American lives have been sacrificed was the plain duty of a wealthy and powerful nation like the United States. The national honor was pledged to give the relief needed. Mr. Roosevelt suggested that the substantial benefit of a reduction of duties should go to Cuban producers, not to American sugar-refiners, and advised against recourse to a bounty in the form of a rebate. The deadlock was not broken by the President's message nor by the endorsement of his policy by one Republican State convention after another. The Spooner bill providing for a 20-per-cent. reciprocal reduction of duties for five years, which was amended in the House by a provision to abolish the differential duty protecting American refiners, though retaining the countervailing duties on bounty-fed sugar, was recommended by the Senate Committee on Cuban Relations, considered in a conference of Republican Senators, but the minority opposed to reciprocity remained firm and unbroken. Meanwhile the industrial situation in Cuba grew more acute. Planters were unable to borrow more money to give employment to laborers, and distress prevailed throughout the island. Starvation was in sight, and disorder as its sequel. The finances of the republic were in such shape that there was scarcely money enough to meet expenses. Early in August the Cuban Congress discussed a bill for raising a loan of $4,000,000 at 5 per cent., redeemable in thirty years, to be issued at 90, the proceeds to be devoted to the assistance of cane-growers. It was proposed to issue six months later a loan of $35,000,000 on the same terms, with the customs receipts as security, for the purpose of paying the Cuban army and discharging debts mentioned in the Constitution. A tariff bill was passed increasing to 50 per cent. the duties on fresh and salt beef and pork, codfish, rice, wheat-flour, eggs, coffee, olive-oil, and beer; those on cheese, butter, and snuff, 47 per cent.; on American sugar-refiners, and advised against recourse to a bounty in the form of a rebate. The deadlock was not broken by the President's message nor by the endorsement of his policy by one Republican State convention after another. The Spooner bill providing for a 20-per-cent. reciprocal reduction of duties for five years, which was amended in the House by a provision to abolish the differential duty protecting American refiners, though retaining the countervailing duties on bounty-fed sugar, was recommended by the Senate Committee on Cuban Relations, considered in a conference of Republican Senators, but the minority opposed to reciprocity remained firm and unbroken. Meanwhile the industrial situation in Cuba grew more acute. Planters were unable to borrow more money to give employment to laborers, and distress prevailed throughout the island. Starvation was in sight, and disorder as its sequel. The finances of the republic were in such shape that there was scarcely money enough to meet expenses. Early in August the Cuban Congress discussed a bill for raising a loan of $4,000,000 at 5 per cent., redeemable in thirty years, to be issued at 90, the proceeds to be devoted to the assistance of cane-growers. It was proposed to issue six months later a loan of $35,000,000 on the same terms, with the customs receipts as security, for the purpose of paying the Cuban army and discharging debts mentioned in the Constitution. A tariff bill was passed increasing to 50 per cent. the duties on fresh and salt beef and pork, codfish, rice, wheat-flour, eggs, coffee, olive-oil, and beer; those on cheese, butter, and snuff, 47 per cent.; on American sugar-refiners, and advised against recourse to a bounty in the form of a rebate. The deadlock was not broken by the President's message nor by the endorsement of his policy by one Republican State convention after another. The Spooner bill providing for a 20-per-cent. reciprocal reduction of duties for five years, which was amended in the House by a provision to abolish

The population, not including that of the Faroes, was divided into 1,185,448 males and 1,235,092 females. The increase in population since 1890 was 12.75 per cent., annual increase 1.1 per cent. The increase in the urban population was 29.7 per cent., and in the rural population 4.3 per cent. The population of Copenhagen with its suburbs was 478,235; with suburbs, 478,235. Aarhus had 51,814 inhabitants; Odense, 40,138; Aalborg, 31,457. The number of marriages in 1900 was 9,090; of deaths, 4,994; of births, 31,217. The emigration, mainly to the United States, was 3,570.

FINANCES.—The revenue for the year ending March 31, 1901, was 78,859,567 kroner; expenditure, 78,859,529 kroner. For 1902 the revenue was estimated at 71,512,513 kroner and expenditure at 72,077,975 kroner. The budget estimate of revenue for the year ending March 31, 1903, was 72,871,598 kroner, of which 927,892 kroner are a balance from domain revenues, 3,239,923 kroner are interest on state assets, 10,886,300 kroner come from direct taxes, 51,405,830 kroner are from customs, excise, and other indirect taxes, 136,006 kroner are net revenue from posts and telegraphs, 1,090,000 kroner are the balance accruing to the state from lotteries, 549,377 kroner are separate revenues, and 4,636,468 kroner are revenue from employment of capital and funding of debt. The total expenditure was estimated in the budget at 72,388,598 kroner, of which 1,203,200 kroner are the civil list and appanages, 532,032 kroner are expenses of the Rigs- dag and the Council of State, 7,041,384 kroner are the public debt charges, 3,577,130 kroner are military pensions, 739,300 kroner are for the Ministry of Foreign Affairs, 2,844,977 kroner for the Ministry of Agriculture, 6,035,954
kroner for the Ministry of the Interior, 4,380,168 kroner for the Ministry of Justice, 6,870,705 kroner for the Ministry of Finance, 7,144 kroner for the Ministry of Instruction, 10,228,370 kroner for the Ministry of War, 6,742,635 kroner for the Ministry of Marine, 4,164,765 kroner for the Ministry of Finance, 7,144 kroner for the Ministry for Iceland, 3,836,304 kroner for extraordinary state expenditure, and 13,646,139 kroner for improvement of state property and reduction of debt. The reserve fund kept at the disposal of the Government to provide for sudden emergencies amounted on March 31, 1901, to 17,881,915 kroner. The actual revenue for the financial year 1902 amounted to 96,600,000 kroner and expenditure to 76,700,000 kroner. The receipts included 30,000,000 kroner of the loan concluded in 1901, of which 10,000,000 kroner were used, leaving 20,000,000 kroner unexpended and a total balance in the treasury of 40,000,000 kroner on March 31, 1902. In the budget for the year ending March 31, 1904, the revenue is estimated at 70,200,000 kroner, including a balance in the treasury on April 1, 1903, estimated at 11,000,000 kroner, and the expenditure is estimated at 74,500,000 kroner, showing a probable deficit of 4,300,000 kroner. The public debt at the end of the year, by the aid of which the public debt was reduced Denmark in the first rank of railaying countries, and not only restored but augmented the former prosperity. There were exported 40,578 cattle, 20,643 horses, and 20,432 head of hogs in 1903. The quantity of beetsugar produced was 49,675 tons. The manufacture of oleomargarine was 18,254 tons. There were 21,878,576 gallons of beer brewed, and the distillation of spirits amounted to 747,945 gallons. The catch of fish in 1890 was valued at 7,455,711 kroner. The total value of imports in 1900 was 528,263,000 kroner; of domestic exports, 201,919,000 kroner; total exports, 393,570,800 kroner. The special imports were valued at 416,200 kroner, of which 96,200,000 kroner represent food substances, 81,300,000 kroner articles for personal or domestic use, 43,100,000 kroner fuel, 71,300,000 kroner seeds, manure, and fodder, and 124,300,000 kroner raw products. Of the domestic exports 235,500,000 kroner represent food substances, 42,000,000 kroner colonial produce; of the imports 7,655,000 kroner and of the exports 3,445,000 kroner were beverages; of the imports 58,372,000 kroner and of the exports 6,306,000 kroner were textile manufactures; of the imports 47,081,000 kroner and of the exports 12,079,000 kroner were metals and metal manufactures; of the imports 25,820,000 kroner and of the exports 21,852,000 kroner were timber and wood manufactures; of the imports 47,362,000 kroner and of the exports 4,470,000 kroner were coal; of the imports 2,513,000 kroner and of the exports 1,339,000 kroner were live animals; of the imports 52,037,000 kroner and of the exports 21,288,000 kroner were dairy produce and provisions; of the imports 66,873,000 kroner of the exports 13,339,000 kroner were cereals. The values in kroner of the commerce of Denmark with various foreign countries in 1900 are given in the table on the next page.

The imports of Danish bacon into Great Britain increased from £67,190 in 1870 to £26,925,625 in 1900; exports of eggs, from £67,658 in 1870 to £29,255,761 in 1900; and in the later year £32,035,792 of Danish bacon was imported.

**Navigation.**—The number of vessels in the foreign trade entered at Danish ports during 1900.
was 33,389, of 2,913,849 cargo tons; cleared, 34,315, of 844,667 tons of cargo. There were 33,850 vessels entered and 33,667 cleared coastwise. The merchant fleet of Denmark and the colonies comprised 3,252 sailing vessels above 4 tons, of 158,305 tons, and 521 steamers, of 230,337 tons.

Railroads, Posts, and Telegraphs.—The length of railroads in operation in 1901 was 1,810 miles, of which the state owned 1,108 miles, built at cost of 247,546,911 kroner. The number of letters and postal cards carried in the mails in 1900 was 95,714,494; of newspapers, circulars, samples, etc., 87,321,958.

The Government telegraph lines in 1900 had a total length of 2,413 miles, with 8,601 miles of wire. The length of telephone lines was 1,351 miles, with 2,620 miles of double and 566 miles of single wire.

Colonies.—Iceland has an area of 39,750 square miles, a small part of which is productive. The population in 1900 was 70,927. The imports in the value of 33,997,000 kroner, and exports at 2,993,000 kroner. The coast and deep-sea fisheries are the principal resource of the population. Fishermen from all the countries bordering on the North Sea visit the fishing-banks. The Althing, the autonomous legislature, passed a law in 1898 by which trawling in Icelandic waters is prohibited, and inhabitants of the island are forbidden under penalties of imprisonment to aid or abet trawling. Fishing with trawling-nets from steamers has depleted the fisheries on which Icelanders depend for a living, and therefore the territorial waters have been closed to them, and by the treaty with the United States are subject to American jurisdiction, but too far from Iceland to be of much value to the British.

The fisheries of Denmark and the colonies are so valuable as to be a source of national wealth. The importers are engaged in these trades, and the trade is carried on by the government.

The Danish colonial possessions in the world, are visited every year by Government steamers which bring the supplies they need and take away the oil, furs, and other Arctic products, which are purchased by the Government and resold in Europe. The value of imports in 1900 was 831,000 kroner; of exports, 840,000 kroner.

The Danish West Indies are the islands of St. Croix, St. Thomas, and St. John. When the West Indian islands were in a more prosperous condition than at present the sugar, rum, and molasses of the Danish Antilles found a ready market in the United States. Of late years they have suffered more than most of the other islands from the depression in their main industries. Negotiations have been going on for years looking to their transfer by purchase to the United States (see West Indies).

Legislation.—The question of the sale of the West Indian possessions of Denmark to the United States was the main subject of discussion in the Rigsdag in 1902. The treaty for their transfer was signed at Washington on Jan. 24, 1902. It was ratified by the United States Senate on Feb. 17. The Danish Steamship Company, which has a large traffic in the Atlantic, opposed the sale, and it was distasteful to the upper classes of Denmark. The signing of the Brussels sugar convention seemed to promise economic advantages for the islands, and the treaty for the islands. When the treaty was laid before the Folketing its opponents debated long against it, but it was ratified on March 18 by an overwhelming majority. The bill to reject it outright and 19 withholding their votes, desiring the matter to be left to a vote of the people of the islands. This proposition found favor in the Landsting, which voted to delay the decision until the qualified electors of the islands indicated their desire by a plebiscite. Meanwhile various enterprises designed for the economic benefit of the islands were promoted in Denmark, chief of which was a new steamship company to start a regular service between the North Sea and Gulf ports, and a plantation company, which intended to buy up land in the islands and have it cultivated scientifically by Danish agriculturists. Objections were made to the treaty on the ground that it did not secure to the islands American citizenship and free trade with the United States. The treaty was ratified by the United States Government had stipulated for these privileges. The Folketing would not accept the provision inserted by the representatives of the island who have the right to vote for members of the colonial councils first take a vote on the question, but agreed by 96 votes to 2, with 5 abstentions, to have a plebiscite taken of all the male inhabitants of the islands, as was done in 1887, when the former treaty for the sale of the islands was made, which failed of ratification in the United States Senate. The plebiscite by 33 votes to 30 insisted on its own amendment, and the matter had to be postponed till another session. The elections to the two colonial councils, to whom the Conservative majority in the Landsting proposed to refer the question, are only 366 in number, while the adult male population exceeds 6,000. There was a possibility that the voters might pronounce in favor of the sale by a slight majority. The amendment of the Landsting was therefore framed so that the Rigsdag would not be bound by the vote unless the feeling in favor of the sale was indicated by it was undoubtedly in favor of the sale. The Agrarians, who constituted an overwhelming majority of the voters of Denmark, were
united in their desire to relieve the country of the financial burden and the trouble of these distant negro colonies. The bankers and merchants of Copenhagen, the university men, and the court circle were as strongly bent on keeping the islands for Denmark. Since ratifications could not be exchanged by the date fixed, July 24, 1902, the time for ratification was, at the proposal of Mr. Hay, extended for a year.

Negotiations for the sale of the Danish Antilles to the United States have been resumed several times since the conclusion of the abortive treaty of 1867. The latest negotiations were suggested to Mr. Hay by a Danish adventurer named Christmas, who brought the information that overtures for the purchase of the islands would be favorably received at Copenhagen. Horace White, secretary of legation at London, was entrusted with an informal mission early in 1900 to sound the views of the Danish Government. Admiral N. F. Ravn, Minister of Marine in the Hithing Cabinet, who was also provisional Minister of Foreign Affairs, was ready to discuss the matter with Mr. White, but turned Christmas, who accompanied him, out of his office. Christmas returned to the United States, pretended to have a part in the business in association with other lobbyists and go-betweens, on the basis of which he demanded money from the Danish Government. His claims were denied, and when the contest over the ratification of the treaty began he turned to the opponents of the sale and supplied them with scandalous tales of secret corrupt dealings. It was asserted that Danish ministers had promised a large sum to be expended in influencing state senators and legislators in Washington and the American press and that he had paid over money for these purposes.

The Rigsdag increased postage rates, chiefly in order to give better pay to employees. The session was closed on May 17 after the Folketing had spent over half a year on the budget, and left it with a prospective deficit of 5,500,000 kroner, making larger military appropriations than the Conservative ministries had ever obtained, yet accomplishing none of the fiscal reforms that Radicals and Social Democrats have called for, such as the abolition of tithes and revision of the whole system of taxation. The Government pronounced that the demands of the Danes for Danish desired to be neutral in all European wars, such as had been made before, and in a consultation with the Cabinets of Sweden and Norway, the political assent of the Scandinavian nations making simultaneous declarations was considered. Elections were held on Sept. 20 to replace half the members. The old Conservative party lost its small majority. Of the new Lands thing 29 were Extreme Conservatives, 8 Independent Conservatives, 3 Conservatives not belonging to any faction, and 25 Radicals, including 1 Social Democrat.

DISCIPLES OF CHRIST. The report of the statistical secretary presented to the General Missionary Convention at Omaha, Neb., in October, furnished the following summaries of the churches of the Disciples of Christ: Number of churches, 10,957; of communicants, 1,207,377; of Bible schools, 8,271, with 796,699 pupils, officers, and teachers; of ministers, 6,477; showing gains for the year of 84 churches, 20,836 members, 259 Bible schools, 22,158 members of Bible schools, and 94 ministers. The report gave as the money raised by the Convention $25,720, including $8,000 for an annuity fund, $18,000 for the Church Extension, and $485 for the Board of Ministerial Relief. The sum of $25,720 had been received in annuity funds, being a gain of $10,020 over the previous year. The Board of Ministerial Relief had raised $9,326 during the year. The Board of Church Extension returned $54,866 of new receipts, $37,551 received from returns of loans, and $16,000 from the sale of land, which, with $84 for insurance, made its total receipts $108,501, showing a net gain of $4,850 over the previous year. Its permanent raising of the fund amounted to $4, from the operations of $180,656 had been returned on loans. $60,289 had been received in interest, 655 churches had been aided, and 249 churches had
ERUPTIONS. The year 1902 was one of unusual volcanic and seismic activity. In Mexico, Guatemala, the West Indies, the Aeolian Islands, and Russia severe disturbances occurred, accompanied by great loss of life, while the volcanoes of Vesuvius and Mauna Loa, displayed marked activity. But two apparently quiescent and long-forgotten volcanoes gave the most striking exhibitions of the impotency of man against the wrath of nature. In one terrible moment a great blast of hot ashes, rocks, and poisonous gases rolling down from the crater of Mont Pelée, in the island of Martinique, wiped out of existence the beautiful city and commercial center of that island and destroyed its entire population of 30,000, except one who escaped, and that one, a commander who more carefully than they are studied in any other part of the world, 1,000 earthquakes have been recorded annually without any unusual volcanic disturbances. However, on Jan. 16, a section of country on the western coast of Mexico was violently shaken, destroying several cities and towns. The earthquake was felt in the City of Mexico, where the people, rushing from their dwellings, crowded beyond the city gates. Telegraph-poles swayed like trees in a gale, but no particular damage was done, and within thirty seconds it was all over, the earth resuming its normal condition of quiescence. But Chilpancingo, the capital of the state of Guerrero, which appears to have been in the center of the earthquake zone, was almost totally destroyed. The earthquake occurred on a quiet, pleasant afternoon, about twenty minutes past five o'clock. The ground heaved and shook with such force that not a building was left in Chilpancingo without some damage. The disturbance began with a slight tremor of the ground, accompanied by a rumbling noise such as that made by a heavy truck driven over a roughly paved street. The rumbling swelled, and then distinct oscillations of the ground were felt, and then came an upheaval and a crash. Walls fell outward, roofs fell in, and clouds of dust ascended amid the shrieks of the wounded and dying and panic-stricken. In their wild terror those who could escape fled over the broken ground. The street that they fled on was their way, never stopping to look back, nor heed ing the cries of the maimed, till they had reached the open fields, the usual goal of safety in countries where the people are accustomed to these violent shakings. As the clouds of dust cleared away and the calmer people looked about them, they saw only their ruined town with its streets blocked with the ruins of their houses. The domed roof of the old Spanish church in which the Mexican Declaration of Independence was signed and in which the houses of their patriot, Gen. Bravo, repose had fallen in, burying beneath it two women who were praying. The pedestal that had supported a statue of the general in the little park fronting the church, now supported only a pair of legs, while the body of the statue lay in two pieces on the ground. The belfries of the two churches were cracked from top to base, and the roofs of one-story houses were shaken in and their walls of solid masonry cracked. Comparatively speaking, there was only small loss of life, owing to the fact that the people fled from their houses upon feeling the first tremor of the earth's crust. At Chilapa, another epicenter was the zone of the shaking, which suffered greatly, the people were gathered in the open plaza, looking at a tight-rope performer. This resulted in many lives being saved that would have otherwise been buried under falling débris; but many people went insane with fright, while many contended
that the earthquake was sent in punishment of
the sacrilege that had been committed in allowing
the performer to tie one end of his rope to the
church tower.

A series of earthquake shocks were reported
from Guatemala on April 8, and on the night of
the 18th they were of such severity that they were
recorded by the seismograph in the Isle of Wight,
and might have been recorded in any part of the
world. It appears that on this night the Cordill-
eras of Central America were relieved of their
seismic strain; villages and towns were shat-
tered and earthquake waves passed over the
world, and other unusual phenomena were re-
corded. On April 23 Mont Pelée showed a plume
of smoke, and on May 3 it showed a fiery glow
at night from the incandescent lava within its
crater. There were slow rumblings in the near-
boring island of St. Vincent, and its long-extinct
volcano, La Soufrière, began its eruptions two
days later. On May 8 a geyser or boiling lake
in Dominica, about 300 feet in length by 200 in
breadth, disappeared completely. About the same
time it was reported from Tacoma that Mount
Redoubt, Cook inlet, in the State of Washington,
was pouring forth dense volumes of smoke, and
that it had become luminous in the night. Vol-
canic ashes fell, and snow near the mountain
was covered with ashes. The last eruption of
Mount Redoubt occurred in 1867. On May 31
earthquake shocks were felt in various parts of
Greece.

Lack of available means of transit comparat-
ively shuts off Guatemala from the rest of the
world, and it was not till about the time the world
was horrified with the news of the eruption of
Mont Pelée and the wiping out of the city of St.
Pierre, as also that of La Soufière, that definite
news came from the Central American republic
that its second largest and richest city, Quezal-
tenango, had been completely destroyed by an
earthquake, undoubtedly the one that had been
recorded on the Isle of Wight in the night of
April 18. Quezaltenango was a well-constructed

City of many imposing edifices of lime and stone
construction, with an estimated population of 25,000
to 30,000 inhabitants. It is supposed by some
to have been built within the crater of an extinct
volcano, but this is doubtful, the belief having
originated from the fact that it is surrounded by
high, jagged mountain peaks at an elevation of
8,000 feet above the sea. The only reliable ac-
count of the seismic disturbances that shook the
Cordilleras and finally destroyed this city ap-
ppears in a communication from Edwin Rockstroh,
a German for a long time in the employ of the
Guatemala Government as an engineer. He says
that at 8:25 p.m., April 18, an earthquake of more
than thirty seconds duration affected a large part
of Guatemala, eastern Chiapas, and western
Salvador and Honduras. The intensity of the
movement was greatest in western Guatemala,
where the second and richest city of the country
was completely destroyed, with the loss of about
500 lives. The cities of Sololá, San Marcos, and
its sister town, San Pedro Sacatepéquez, were also
completely ruined, with a loss of more than 200
lives. Retalhuleu and Mazatenango, important
towns on the Pacific coast plain to the south of
Quezaltenango were also ruined. The cities that
were most violently shaken were those on the
highlands a little north of the great volcanoes
that rise in the vicinity of Quezaltenango. Be-
sides the cities named, nearly every town and
hamlet in the Department of San Marcos, Quezal-
tenango, Retalhuleu, and Suchitepéquez, and
several in Chimaltenango, suffered, and nearly
every one of the many important coffee and sugar
plantations in the western coast regions had its
buildings, aqueducts, and machinery shattered.
At the port of Ocos only 3 houses remained
standing, and the pier extending into the sea was
broken in two. Later it was reported that Ocos
was sinking beneath the sea. The railways be-
tween Retalhuleu and the port of Champerico,
and the one between Ocos and Coatepeque, were in-
terrupted by the falling of bridges and other
damage. Until May 5 earthquakes were frequent,
extending from Guanac, near the Atlantic coast,
to the west, near the Pacific.

It was on the night of May 3 when Mont Pelée
began to throw large quantities of scoriaceous
and volcanic ash into the surrounding country, and
on May 3, two days later, a stream of lava rushed
down the mountainside, reaching the sea 5 miles
distant, in three minutes, it is said. When the
red-hot stream met the sea the water receded
300 feet on the beach, mingling with great force.
Two days later, May 7, a hot blast from the volcano engulfed the town of St.
Pierre, destroying everything. Almost simultane-
ously with the outbreak of the Martinique vol-
cano occurred that of La Soufrière, in St. Vin-
cent.

Forming the arc of a circle, roughly speaking,
a string of islands extends around the western
border of the Caribbean Sea, from Porto Rico
to a point near the continent of South America.
The group begins with Saba on the north, and
ends with Grenada on the south, near the large
island of Trinidad. In this group lie the islands
of Martinique and St. Vincent. The islands ap-
ppear from the sea like mountain peaks, and geol-
ogists tell us that they are merely ancient ash
heaps over which time has weathered a soft
and moisture has nursed a luxuriant tropical vegeta-
tion. On all of the larger ones there are evidences
of their volcanic origin in the form of craters
and boiling springs; but, with the exception of
St. Vincent, none of them seemed to have suf-
fured from any severe eruptions since they were
discovered four hundred years ago; and to such an extent did the inhabitants of Martínique consider themselves as enjoying immunity from such disturbances that they spoke of Mont Pelée, which overshadowed them at a height of 4,428 feet, as an extinct volcano. St. Vincent's volcano, La Soufrière, erupted in 1812, and Caracas, the capital of Venezuela, was destroyed about the same time, when the entire city was shaken down and 10,000 people lost their lives. This fact merits attention because about three months previously to the recent eruption of La Soufrière Caracas and the country about it suffered from considerable seismic perturbation. In both instances the disturbances in the northern part of Venezuela preceded the eruption of the St. Vincent volcano.

La Soufrière mountain rises to an altitude of 3,500 feet. Previously to the recent eruption it had two craters, Old and New. The first was 3 miles in circumference and 500 feet deep, and was separated from that which was known as the new crater, formed in 1812, by a ridge of igneous rock. The Old crater was half a mile in diameter, with a beautiful lake at the bottom, walled in by rocky cliffs to a height of 800 feet, covered with verdure, and fringed over the top with a growth of cedars, and the water from the lake ascended in a stupendous cloud of steam and exploded high in the heavens. Explosions and noises continued till May 6, when a great explosion proceeded from La Soufrière; the old crater and the ridge between were belched forth smoke and stones, forcing the inhabitants of Wallabou and Richmond valley, beneath the volcano, to fly to Chateau Belair for refuge. At midnight a beautiful shower of sand came down from the crater; the lake was destroyed and a school-building and a church suffered severe damages. The disturbances dislodged great masses of rock in the Fuen-Santa mountains, and similar shocks were reported from Bordeaux, Bayonne, Pau, and other places in that region.

On May 8 the London Times published a despatch from the West Indies saying that the Martinièque volcano had destroyed St. Pierre on the 6th, and the 7th, and that the steamer Roddam had returned to St. Lucia at 5 p.m. from that city, almost a total wreck from fire, with 17 of her crew dead and the survivors badly burned. The captain reported that he had barely been able to make his escape from the harbor of St. Pierre, and that the Quebec steamer Roraima was lost with all the crew in the harbor, with the rest of the shipping. May 10 a fuller report was given of the terrible disaster. The French cruiser Sachet attempted to make a landing at St. Pierre, but was forced to desist, owing to the terrible heat. The crew reported dead bodies lying all about the wharves and shore, and 30 survivors, more or less burned, were picked up from the sunken vessels in the harbor. Consul L. H. Ayres, to the State Department from Guadeloupe that 18 vessels were burned and sunk, including 4 American vessels and the steamer Roraima. Among those lost was the cable-ship St. Lucien.

The Roddam carried the first news of the disaster to St. Lucia, whence the outside world was informed, the cable from Martinique being interrupted since Sunday, May 4. The Colonial Office at London received a despatch dated May 8, announcing the outbreak of the St. Vincent volcano, La Soufrière, from the Governor of the Windward Islands, then at Kingston. A despatch from St. Lucia announced that cable communication was broken off with St. Vincent, and a despatch from Bridgetown, Barbados, more than 100 miles away to the east, said that rum like no other like it had been heard in the direction of St. Vincent, and that volcanic dust from the volcano had been falling all over the island in great quantities. Orders were immediately cabled by the British Government to the cruiser Indefatigable at Trinidad to go at once to the relief of St. Vincent. A subsequent cablegram from Barbados reported the continued rumbling sound resembling artillery fire in the direction of St. Vincent, and at 5 p.m. darkness set in, with thunder and a downpour of dust. It was also reported from Pointe à Pitre, Guadeloupe, that La Soufrière had been in a state of eruption for nine consecutive mornings.

The Secretary of the Navy cabled from Washington to Capt. McLain, of the cruiser Cincinnati, at Santo Domingo city, to go with the utmost haste to Martinique and render such assistance as was possible, and at the same time he ordered the commander of the Brooklyn Navy Yard to prepare the Dixie for sea as soon as possible. The State Department ordered Consul Aymé, at Guadeloupe, to go to the scene of the great disaster to report thereon, and inform the United States of the help needed.

A definite report was received from St. Vincent on May 11, which said that on the 5th a loud explosion was heard proceeding from La Soufrière, and that on the 6th, 3 miles in circumference, and the fires both belched forth smoke and stones, forcing the inhabitants of Wallabou and Richmond valley, beneath the volcano, to fly to Chateau Belair for refuge. At midnight a shower of sand came down from the crater; the lake was destroyed and a church and a school-building suffered severe damages. The disturbances dislodged great masses of rock in the Fuen-Santa mountains, and similar shocks were reported from Bordeaux, Bayonne, Pau, and other places in that region.

On May 9 the London Times published a despatch from the West Indies saying that the Martinière volcano had destroyed St. Pierre on the 6th and 7th, and that the steamer Roddam had returned to St. Lucia at 5 p.m. from that city, almost a total wreck from fire, with 17 of her crew dead and the survivors badly burned. The captain reported that he had barely been able to make his escape from the harbor of St. Pierre, and that the Quebec steamer Roraima was lost with all the crew in the harbor, with the rest of the shipping. May 10 a fuller report was given of the terrible disaster. The French cruiser Sachet attempted to make a landing at St. Pierre, but was forced to desist, owing to the terrible heat. The crew reported dead bodies lying all about the wharves and shore, and 30 survivors, more or less burned, were picked up from the sunken vessels in the harbor. Consul L. H. Ayres, to the State Department from Guadeloupe that 18 vessels were burned and sunk, including 4 American vessels and the steamer Roraima. Among those lost was the cable-ship St. Lucien.

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ferred to the Committee on Appropriations; but
when the President informed Congress on the fol-
lowing Monday in a special message that the
French Government had asked for relief, and ur-
ging immediate action, also recommending that
the appropriation be increased to $500,000, the
House increased the Senate appropriation by
$100,000 (on May 12). The War Department
at once ordered the Dixie to load the necessary
stores, and by direction of the President, Secre-
tary Hay cabled Ambassador Choate at London
to express to the British Government the sym-
pathy of the President and the people of the Uni-
ted States in the affliction that had befallen the
island of St. Vincent, and our desire to share in
the work of relief and rescue.

The Dixie sailed from Brooklyn in the night
of May 14, at 9 o'clock, bearing the relief ex-
pedition to the unfortunate islands, including a
special scientific expedition to investigate the re-
gions of the disturbances under the auspices of
the National Geographical Society. Its members
consisted of Prof. Robert T. Hill, of the Geological
Survey; Prof. Israel C. Russell, Professor of Geol-
ogy in the University of Michigan; Comd. C. E.
Borchgrevink, antarctic explorer; Dr. T. A. Jag-
gar, of Harvard University; Mr. G. C. Curtis, of
Cambridge; and Dr. Angelo Heilprin, president
of the Philadelphia Geographical Society. This
was one of the most important and best equipped
expeditions ever sent out to study volcanic action.

Fort de France, Martinique, on the morning of
May 21, and while the explorers proceeded to St.
Pierre in a smaller boat she unloaded a part of
her supplies. A desolate scene met the gaze of
those who debarked among the ruin and piled-up
debris and volcanic ash on what was once the
beautiful city of St. Pierre. There was not a
person in sight or a living thing among all this
ruin, except where a squad of French soldiers
were busy far up the slope piling up the dead to
be cremated. Prof. Russell estimated that about
20 square miles had been devastated on the west-
ern slope of Mont Pelée, and in all that space not a
living thing was left. Fire followed the hurricane
of hot vapor, and a rain of rock dust buried what
the fire left uncovered. Never in the history of
man had such complete destruction been wrought
on an area of equal size. As to the precise
nature of the blast that destroyed the city, the
opinions of the commission seem to differ. Prof.
Russell favors the opinion that the general cause
of death was a blast of steam charged with hot
dust. The people on the border of the devastated
area who escaped, and who in some instances
were injured, suffered from burns inflicted by hot
dust that adhered to the skin. Witnesses who
were on the Roddam in front of St. Pierre at the
time of the disaster say that when the eruption
occurred the vessel was struck with such force by
the material ejected that she was nearly capsized,
and at the same time she seemed to be enveloped

A WEALTHY CITIZEN'S RESIDENCE, QUEZALTENANGO, GUATEMALA, RUINED BY THE EARTHQUAKE.
in a whirlwind of fire. It appeared to them that what burst from the volcano was highly heated gas, carrying with it immense quantities of white-hot volcanic ash. After the vessel reached the harbor of Castries, St. Lucia, a survivor gave the following account of his experience: "No human being could stand against that terrific deluge of molten ashes. Even those who reached the cabin or the hold did not escape, almost every nook and cranny of the ship being filled with the blazing dust. Capt. Freeman sought shelter in the chart-room, but, the port-holes being open, the fire streamed in and burned him horribly on the face and hands. The heat was awful, for the mass of ashes that poured into the ship all aglow retained their heat, and it was only with the greatest difficulty and caution that it was possible to move about."

From such testimony as could be gathered, it appears that a fissure opened on the side of the mountain overlooking the city and belched out lava, superheated steam, and poisonous gases. This rolled in a great cloud like a hurricane down upon the doomed city, and in three minutes, as estimated by some, every living creature, except the man in the underground cell, was dead.

From Martinique the Dixie proceeded to St. Vincent, where more of her supplies were issued to those who had been driven from their homes. Here not so many lives were lost as in Martinique, as there was no large city within the zone of destruction, and those who were within the zone, unlike the people of Martinique, sought refuge at the foot of the extinct craters of the volcano. Nevertheless, the destruction was terrible, due to dust, lapilli, and stones, which rained down upon everything while yet hot. But there appears to have been no hurricane blast of steam or gas charged with burning dust sweeping down upon any part of the island, as in Martinique. The words of a survivor show how most of those who were killed died: "A dark cloud came from La Soufrière about 4 P.M., and a fine leaded powder filled the air, penetrating the doors and windows of the houses. People breathed it, and it was so hot it burned the flesh. The people in the houses began to cry out and struggle, shouting for water; and placing their hands on their stomachs, they gasped, fainted, and died. The hot powder burned into the flesh wherever it touched."

The eruptions appear to have been heard at Maracaibo, Venezuela, 830 miles away. The United States consul at that place reported that on the morning of the eruption of Mont Pelée he heard a noise as of cannonading. Eruptions of both volcanoes continued through the summer. Soufrière was reported in eruption on Oct. 8, causing even greater distress in the island than that which prevailed before. Large areas of land that were considered outside the volcanic zone were buried in sand. Dust continued to fall in Barbados, with a very strong smell of sulfur, for several days, producing a deposit about an eighth of an inch in depth. Again on Oct. 15 and 16 La Soufrière increased its area of destruction.

The eruption of Mont Pelée continued through August. On the night of Aug. 28 a magnificent display of lightning was seen issuing above the mountain. It seemed to shoot out from the mountain in all directions, zigzagging and flickering flashes alternating with or accompanied by reddish globes of fire, which ascended and exploded and shot out stars and long rays. Two days later there was another disastrous eruption of
PELÉE, accompanied by an enormous discharge of steam and hot water, even greater than in the case of the eruption of the islands of the group, owing to a volcanic eruption and continued excitement of the people, who feared a repetition on a smaller scale of the Martianique disaster. Earthquake after earthquake occurred, with great violence and were of exceptional duration. Great stones were sent rolling down the volcano's sides, blocking roads and damaging groves and fields. Great yawning chasms opened in the earth, extending long distances and to an unknown depth. Panic-stricken, the entire population deserted the vicinity of the mountains and fled to the seashore, where they were picked up by German authorities, who ordered the evacuation of the island till such time as the disturbances should subside.

EAST AFRICA. The strip of coast over which the Sultan of Zanzibar formerly exercised sovereign rights was leased to Germany, Great Britain, and Italy, and these three powers subsequently made agreements dividing among themselves the Hinterland as far as the borders of the Congo State and the equatorial provinces of Egypt. German East Africa extends from the Umbo river south of the River Rovuma, which is the northern boundary of the Portuguese possessions on the east coast. British East Africa extends from the Umma northward to the Juba, where the Italian frontier begins, and to the interior borders on Abyssinia. Zanzibar itself was declared a British protectorate in 1890.

GERMAN EAST AFRICA.—The German protectorate has an area estimated at 38,180 square miles and is supposed to have a population of 8,000,000. It is divided into 9 districts, in each of which is an administrator assisted by a council. At the head of the administration is the Imperial Governor, Graf von Götzen, who resides at Dar-es-Salam. A decree was issued in November, 1901, for the mitigation of slavery and its ultimate abolition. The military force consisted in 1901 of 175 German officers and sergeants and 1,692 native troops, the police force of 20 German officers and 570 Askaris. The number of Europeans on June 30, 1900, was 1,780; of whom 872 were Germans. Native planters cultivate bananas, corn, and pulse. German settlers have planted coconut-palms, coffee, vanilla, tobacco, cacao, rubber-trees, and sisal. Many tropical plants have been tried in the Government experiment stations, and new breeds of cattle have been introduced as well as asses, mules, and camels. The natives raise goats and some cattle, hogs, and sheep. Dar-es-Salam and Bagamoyo have about 15,000 inhabitants each; Pangani, Saadani, and Kilwa, 10,000; Lindi, Mikindani, and Tanga, 5,000. A railroad from Tanga to Muhesa, 54 miles, has been continued to Mombu, 26 miles farther, and thence to Kordowe, through which pass the two main trade routes to the lake country. Another will run from Dar-es-Salam to Mrogoro, and a telegraph-line to Kilossa. The seaports are connected with each other by telegraph-lines and with Zanzibar by a cable. The expenditure for 1903 is estimated at 9,601,496 marks, of which 2,186,296 marks are covered by the estimated local revenue, and 6,415,200 marks are contributed by the Imperial Government. In 1900 the value of imports in 10,000 was 11,430,000 marks. The value of exports was 4,283,600 marks. Imports of provisions were 776,000 marks in value; textiles, 2,640,700 marks; machinery, 1,897,300 marks; rice, 1,353,200 marks. Rubber was exported to the amount of
EAST AFRICA.

1,088,700 marks; grain, 373,375 marks; coffee, 274,800 marks.

German enterprise is mainly in the hands of the German East Africa Company, founded in 1889 with a Government grant of 6,500,000 marks. The plantations of the company are constantly being extended at an outlay exceeding the annual sales of produce. The company has the coinage privilege, and makes a small profit out of the difference between the cost of silver and the nominal value of the rupees and half and quarter rupees coined. The privilege of mining in the stream beds of the East Africa Protectorate has been reserved to the Government. German merchants who formerly had agencies in East Africa lost through giving credit to Arabs. The trade of the interior has fallen into the hands of Greeks, Arabs, and Banians. Labor is abundant in the German protectorate at rates which the Government has fixed that are twice as high as those paid on the British side of the border. The pay of the native soldiers and Soudanese in the German military force is equally liberal. The roads in the German protectorate, one from Bagamoyo through Dar-es-Salam to Tabora, whence branch roads lead to Moshi, Ujiji on Lake Tanganyika, another from Kilwa on the coast to Withaven on Lake Nyasa, are the best in central Africa. The Tabora route to the two northern lakes has been selected for a Government railroad or one with a Government guarantee.

British East Africa.—The British East Africa Company, provided with a royal charter from the English Government, took possession of the coast north of the Umba, leased for fifty years from the Sultan of Zanzibar, as far as Kipini, which was recognized as the northern limit of the Sultan's dominions on the mainland. The interior was claimed as a British sphere and ceded as such in the Anglo-German agreement of Nov. 1, 1890, and the supplementary agreement of July 1, 1890. An agreement was made with Italy in 1891 conceding the region north of the Juba river as an Italian sphere of interest. The British East Africa Company, which proclaimed a British protectorate over Uganda on June 19, 1894, and over the region between the coast and Victoria Nyassa on June 13, 1895, occupies the native lands in trust for the British East Africa Protectorate, has an estimated area of 290,000 square miles and a population estimated at 2,506,000, including 25,000 British Indians and 450 Europeans and Eurasians. The British agent and consul-general at Zanzibar is Commissioner and consul-general having control of the administration. The dwellers are Arabs and Swahelis. Parts of the interior are inhabited by Bantu negro tribes, other parts by Masais, Somalis, and Gallas. Mombasa, the seat of the local administration, has a population of 27,000. The revenue in 1901 was £64,750, and the expenditure £157,886. The value of imports was 6,692,131 rupees, and of exports 1,259,385 rupees. Badan merchants carry on the trade. A duty of 5 per cent. is levied on imports under the Brussels act. The Indian code of law has been adopted, modified by local customs. Domestic slavery is legal on the coast strip leased from the Sultan of Zanzibar. There is a military force of 1,000 Soudanese, Swahelis, and Masais, known as the East African rifles, and 300 Soudanese besides; the police force numbers 650. The exports are ivory, rubber, cattle, goats, grain, gum copal, and hides. Cotton cloth is imported from England and India, and the only other considerable imports, except provisions, are brass wire and beads for barter with the natives of the interior. The protectorate embraces Seyyidich, the 10-mile strip leased from the Sultan of Zanzibar; Ukamba, comprising Teita, Kitui, Masailand, Ulu, and Kieni; Tanaalnd, with Lamu for its capital; and Jubaland, the capital of which is Kismayu. The British Government in 1902 made grants in aid of £285,000 to the British East Africa Protectorate and £172,000 to Uganda, and contributed £260,000 to Somaliland and £50,000 to British Central Africa. Under the Uganda Railway act £870,000 were spent in the year ending March 31, 1902, on the railroad, the lake end of which was in Uganda, but in April, 1902, the boundary of the East Africa protectorate was moved so as to include all the country between the lake and the ocean. Slavery still exists in the coast strip under sanction of the law, the British Government having refused to abolish the legal status of slavery, although the Sultan of Zanzibar was forbidden to do so within his own remaining dominions, the islands of Zanzibar and Pemba. In Pemba, where there were 25,000 negro slaves on the clove plantations of the Arabs, 5,000 have obtained emancipation under the decree of April, 1897, which enables any slave to go before a magistrate and obtain emancipation papers by declaring his wish to be free. Of late a few have sought their freedom, only 240 in 1901. The introduction of fresh slaves into the islands or into the coast strip, now a part of the East Africa Protectorate, has been forbidden since 1896. Nevertheless, slaves have been brought in or illegally held by the Arab planters, who have not been restrained by the authorities. Bishop Tucker asserts that 90 per cent. of the slaves are held in illegal bondage. Under the social customs and the regulations in force as to freed slaves the condition of a freedman is worse than that of a slave. There is a rigid limitation of his movements and protection of his master and the society and companionship of his fellows, and is left alone in the world. The Arabs allow these freedmen the use of a house and food, but they must work half the time on their plantations, and thus they get their land cultivated by freedmen as well as by slaves without paying wages. Under the native laws in the British East Africa Protectorate, there is a master for maintenance, care in sickness, and other matters, which he forges when he obtains his freedom. The slaves in Zanzibar and Pemba are generally so comfortably off and some of the freed slaves so much worse off than they were before that the desire for emancipation no longer exists, those who were ill treated having already obtained their freedom in most cases. The fact that any slave who is ill treated can claim his freedom operates to alleviate the condition of the mass who remain in slavery in the immediate dominions of the Sultan. In the 10-mile strip of the mainland, where domestic slavery can be lawfully maintained, there is no such palliating check. Beyond the 10-mile strip slavery is not legal, though it exists where the Arabs have plantations, and the buying and selling of slaves still goes on in many parts of the East Africa Protectorate. The protectorate was opened in 1894 over Uganda and the neighboring countries has been extended since 1896 until it embraces all the British sphere west and north of the East Africa
Protectorate, being bounded by the parallel of north latitude, and the German frontier on the south, and the frontier of the Congo State on the west. The eastern province is to be transferred to the East Africa Protectorate. The estimated area of the Uganda Protectorate with its present limits is 140,000 square miles. Uganda is ruled under British direction by 3 native chiefs in the name of a Kabaka, or King, Daudi Chwa, the infant grandson of Mutesa. Other districts are governed under native laws by native rulers more independently of British control, although in 11 out of 18 districts British supervision is recognized and the position and revenues of the kings are regulated by treaty. The British Commissioner, consul-general, and commander-in-chief of the forces is Lieut-Col. James Hayes Sadler. Uganda proper has a population of about 1,000,000, the majority of whom are Christians. The Eastern, Rudolf, and Central provinces, and the Nile province, which extends from the Victoria Nyanza northward as far as the 1° of east longitude, the provinces of the Soudan, are inhabited by Masai and Soudanese, and the Western province by Bantu and Soudanese and some tribes of dwarfs near the Semiliki river. Including the kingdom of Buganda, the total population is estimated at 4,000,000. The military force under the commander-in-chief numbers about 4,000 men, consisting of a native battalion, the remainder of the Soudanese rifles brought into the country by the British East Africa Company, the rest having mutinied and returned to the Soudan, an armed native constabulary, bodies of native levies, and a battalion of Indian troops who volunteered for native regiments in India to serve three years in Uganda. The Soudanese troops. The native battalion of African rifles consists of 9 companies under 25 British officers. Another battalion of 600 men from the Central African Protectorate, which served in the Ashanti war and is now on active service. The remnant of the Soudanese mutineers who had settled among them and formed with the chiefs the pact of blood brotherhood. The mutineers with their Lango allies were in raiding parties as far as Acholi and entered into a league with Rajoumba and other rebels in Unyoro, who persuaded the natives that Kabarega, their king, would return. When the British officers with their force of loyal Soudanese and Baganda troops entered the Lango country they found that some of the tribes were on bad terms with the mutineers and the chief who had received them, Obokke by name. Others could be induced to take sides with the British if they could be freed from the obligations of blood brotherhood. The English doctors of the British administration were kept in readiness to make them thoroughly sick by an injection of morphine in the ecstaxis, followed by nauseous doses. Since the capture of Mpondwe and the end of the British expeditions had been thorough enough to disturb the Soudanese rebels and the Lango tribes that befriended them. When Major Radcliffe began his operations they offered a strong resistance, which they were encouraged to continue when smallpox broke out among the Government troops. The British persisted, however, and secured the country until they had killed or captured nearly all the mutineers and made a prisoner of the Lango chief who protected them, who were enabled to do by the active aid of three other native chiefs and a force of native levies that operated from the southeast, despatched by Sir Harry Johnston, who as special commissioner was examining the region west of M. Elgon. The operations lasted nearly six months, and the result of the mutinous Soudanese, the Government had to rely mainly on the Soudanese troops that remained loyal: in the wild mountains, and in the heat of the protectorate were stationed in Unyoro near the Semiliki and toward the German frontier, which was delimited by Major Radcliffe and
Major R. G. T. Bright and German commissioners. Major Bright and Major H. H. Austin in 1857-58, explored the great Soudan, in a journey which took them up the Sobat river, and thence overland through the Rudolf province of Uganda, to which the Abyssinians lay claim, to the British post on Lake Baringo, losing in the journey three-fourths of their Soudanese soldiers and attendants, as none of the tribes of the disputed region would furnish them with food.

The railroad has wrought great economical changes in the country through which it runs and in Uganda. Where wire, beads, and cloth were used in exchange rupees are now current. The journey from Mombasa to Port Florence takes two days and a half, the steamer journey of 148 miles to Mengo one day more. The caravan journey occupied seventy days. Sushill is spreading as the language of commerce and general intercourse. There are 90,000 Christian converts in Uganda and 90,000 children in the mission schools. The route of the railroad through the British East Africa Protectorate is mountainous, rising to 7,700 feet above the sea 350 miles from the starting-point, falling to 6,000 feet in the next 75 miles, rising again to 8,300 feet in 65 miles, and finally dropping to 3,700 feet at the lake terminus. Little unskilled and no skilled labor could be found in the country, and this necessitated the importation of 20,000 laborers and mechanics from India, for some supplies had to be brought from India and Great Britain, and in the dry tracts water was transported from 20 to 60 miles. The railroad was the only means of transporting pack animals that could not live in the country, owing to the tsetse fly. The workmen suffered from fevers and from ulcers caused by jiggers, and in some parts they were frightened from their work by man-eating lions. The maximum grade on the line is 1 in 50; the sharpest curves have 800 feet radius.

The Sultanate of Zanzibar, comprising the islands of Zanzibar and Pemba, was declared a British protectorate in 1891. The Sultan, or Seyyid, in the beginning of 1902 was Hamud bin Mohammed bin Said, who was set up by the British. Seyyid bin Said had been on Thwain on Aug. 27, 1896. The Sultan receives an allowance of 195,000 rupees from the public revenue for the maintenance of his court and harem. The British government incurred without the consent of the British agent and consul-general, Sir C. N. E. Elliot. The military and police force of 600 men is commanded by Gen. A. E. Raikes. The Prime Minister is A. S. Rogers, appointed in November, 1901. A duty of 5 per cent. in aid of the suppression of the slave-trade was imposed from Jan. 1, 1899, previous to which date Zanzibar had been since Feb. 1, 1892, a free port. The legal status of slavery on the islands was abolished on April 6, 1897. The area of Zanzibar is 540 square miles; of Pemba, 380 square miles. The population of Zanzibar is about 150,000; of Pemba, 50,000. The foreign population includes about 50 English, 40 Germans, and smaller numbers of American, Greek, French, Italian, and other traders. The native population, aside from about 7,000 East Indians and 10,000 Arabs, consists of negro slaves and esclaves. The town of Zanzibar has about 100,000 inhabitants. The British court is derived from customs and a tax on produce. The value of imports in 1900 was £1,116,041, and of exports £1,157,704, including only the commerce with foreign countries. The value of exports is derived from customs and a tax on produce. The value of imports in 1900 was £225,730, and of exports £204,701; imports of rice at £158,353; imports of ivory at £294,817, and exports at £115,354; imports of grain at £53,492, and exports at £98,351; imports of grocers at £54,123, imports of kerosene at £37,102; imports of cloves at £188,148. Cloves are the chief product. The tonnage entered in 1900 was 348,465 tons. The value of the trade with different countries in 1900 is shown in the following table:

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<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
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<tr>
<td>France</td>
<td>28,590</td>
<td>50,970</td>
</tr>
<tr>
<td>Belgium</td>
<td>51,065</td>
<td></td>
</tr>
</tbody>
</table>

Sultan Hamud died, and Seyyid Ali, his minor son, was on July 20, 1902, proclaimed his successor and A. S. Rogers was appointed regent until the new Sultan attains the age of twenty-one.

British Somaliland, on the Gulf of Aden, formerly a dependency of Egypt, was declared a British protectorate in 1891, delimited by agreement with Italy in 1892, and in 1897 an arrangement was made with the Emperor of Abyssinia by which 7,000 square miles were conceded to him. The present area is about 68,000 square miles. The revenue in 1901 was 334,538 rupees; expenditure, 389,557 rupees. The value of imports at Berbera and Bulhar in 1901 was 2,838,770 rupees, and of exports 2,170,406 rupees. At Aden a duty of 5 per cent. is levied on imports and a 3-per-cent. duty on exports. At Zeyla, where the import duty is 5 per cent. on some articles and on others from 1 per cent. up, and the export duty is only 1 per cent., the imports were 3,070,577 rupees and the exports 3,289,919 rupees in value. Cotton goods, rice, and dates are imported. The exports are hides and skins, cattle, sheep, gum, and ostrich feathers. The administration of the protectorate was left with the Indian officials of Aden till 1898, when it was taken in hand by the Imperial Government.

Col. Swayne, who in 1901, cooperating with an Abyssinian army, carried on an indecisive campaign against the enemy to the British in Somaliland, Mohammed bin Said, a friend of the Mullah, resumed operations in the spring of 1902. When the British force concentrated at Burao the Mad Mullah gathered his followers, who were increased by the hither neutral eastern tribes, against which Col. Swayne led a flying column in May. The combined forward movement followed. The friendly tribes gave aid to the British. The Mad Mullah retired as before into a waterless region, the Haud country. A mounted column under Col. Cobbe seized the camels and sheep of some of the Mullah's allies. Other animals were captured by a second column under Major Phillips. The main column endeavored to get between the Mullah and the tribes that supported him. The British force marched and countermarched on short rations, but were not able to overtake the enemy. The Somalis on their fleet ponies always evaded a fight, although the British formed a camel corps to enable them to move faster. On Oct. 6, the British main column, advancing from the zareba, or fortified camp, against the Mullah at Mudug, was surprised while marching through the dense jungle. The native levies were rallied, and they beat off the tribemen, only to be attacked on the other flank. The transport and the firing-line were
thrown together in confusion and the artillery was driven back. Many camels were captured by the Mullah, and one of the Maxim guns. Col. Swayne finally checked the Mullah's horde by a gallant charge and retook some of the camels. Major Phillips and another officer and 10 men were killed and about 100 wounded. Col. Swayne retreated to Ergo and called for 600 reliable men to reinforce his command, numbering about 3,000, mostly Somalis, whose loyalty and confidence in their leaders were shattered owing to the mishap. A much larger development of force was required to awe the Mullah and the hostile Somalis, who now had allies in the Italian protectorate. Col. Swayne was compelled to continue his retreat northward from the Italian border into the center of British Somaliland. The rainy season was beginning. In which the Somalis, as well as the British, could move more freely. None of the sheikhs or mullahs of Somaliland, of whom there are about 15, each at the head of a village of cultivators, has shown hostility to Europeans until the fanatical Mohammed Abdullah began to preach a holy war against Christians. His supporters came from the Bajadic and the Baddi, who raise sheep, goats, cattle, asses, horses, and camels, and are addicted to plundering. One tribe often sends out a party of horsemen to carry off the live stock and grain of a neighboring tribe, but they never attack the settlements over which the pious mullahs preside. White traders and hunters have usually been respected until the troubles arose in British Somaliland, which has thrown a check to the commerce of Zeila, Berbera, and Bulhar. The Somalis are an active and intelligent race, fine horsemen and skilful fighters with native weapons, proud of their Arab blood, regarding as an inferior race the pure Gallas who live to the west of them. The force that the Mad Mullah led against the British was 12,000 strong at the end of 1901, and in 1902 he had at least 15,000 followers, many of them armed with rifles.

Italian Somaliland. — The sultanate of Obbia was declared an Italian protectorate in 1898, and the Mijjerdist clan led Italian protection for a part of his dominions and agreed not to conclude treaties with other powers regarding the rest. The ports of Brava, Merka, Mogadischu, and Warbark, all on the east coast, were ceded by cession of the Sultan of Zanzibar in 1892 and by agreement with England in 1901 and 1904 were included in the Italian sphere, the total area of which is estimated at 1,100,000 square miles, with about 400,000 inhabitants. The agreed boundary between the British and Italian spheres is the Juba river up to 6° of north latitude, that parallel to 35° of east longitude, and that meridian northward to the Blue Nile.

French Somaliland. — The French occupied Obbo in 1881 and proclaimed a protectorate over Tajura, Sagallo, and Ambado in subsequent years. France claims also the Bay of Adulis. The area of the French sphere is estimated at 45,000 square miles, with 200,000 inhabitants. The port of Jibouti has 15,000 inhabitants, including 2,500 Europeans. The people of the country are Danakils and Gallas. A railroad to Harar has been built for a distance of 100 miles, and is a terminus between the present terminus and Harar. The imports are grain, provisions, tobacco, beverages, and cotton and silk goods. The exports are ivory, sheepskins, and hides. The value of imports in 1900 was 5,029,107 francs, and of exports 695,013 francs. The local revenue and expenditure was 581,000 francs, and the expenditure of France 200,000 francs. The fisheries off the coast are valuable.

Ecuador, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 52 members, 2 for each province, and a House of Representatives, 41 in number, elected for two years by adult male citizens who can read and write. The President is elected for four years by direct popular suffrage, and the Vice-President, who is called upon in certain contingencies to take the place of the President, is elected for the same term at the succeeding biennial election. The President elected for the term ending Aug. 31, 1905, is Gen. Leonidas Plaza. The vice-President is Dr. Frei de Zaldumbide. The Cabinet appointed by President Plaza was composed as follows: Minister of the Interior, Police, Public Works, and Public Charity, A. Moncayo; Minister of Foreign Affairs, Public Instruction, Worship, and Justice, José Peralta; Minister of Finance, T. Gagliardo; Minister of Fomento, Dr. F. Lopez; Minister of War and Marine, Gen. Nicolò Arelano.

Area and Population. — Ecuador has an estimated area of 137,125 square miles. The population is estimated at 1,271,801. Quito, the capital, has about 180,000 inhabitants; Guayaquil, 51,000; Cuenca, 30,000.

Finances. — The ordinary revenue in 1898 was 7,905,191 sules, and the expenditure was 6,662,945 sules for ordinary purposes and 2,234,715 sules for railroads, wharves, debt, etc., under special appropriations which left a deficit of 1,271,829 sules. The total revenue for 1900 was estimated at 8,288,100 sules and the total expenditure at 8,307,783.

The foreign debt, the payment of which was undertaken by the Guayaquil and Quito Railroad Company, was £671,000 on July 1, 1901. The internal debt, which was 4,580,000 sules in 1896, has since been increased. The railroad company was merged in the Ecuadorian Association, and the majority of the shares were transferred from English to American holders, who raised the money to complete the line as Guayaquil and Quito. The cost of completing the whole line was estimated at £200,000.

The coinage law of 1898 adopting the gold standard, which became operative on Nov. 4, 1900, provided for the coinage of gold coins of 10 sules, of the same value as the English sovereign. In 1900 100,000 coins were minted. There were in circulation 1,000,000 silver sules, and 2,000,000 sules were in the vaults of the banks, which are required by law to hold metallic reserves equal to one-half of the bank-notes issued. There are two banks of issue. The Bank of Ecuador on Jan. 1, 1899, had 2,138,170 sules of notes in circulation and 1,955,424 sules of gold and silver in its reserve. The Banco Comercial y Agrícola had 2,322,242 sules of notes out and a reserve of 1,465,251 sules, of which 600,000 sules were gold.

The Army. — The regular army numbers 3,341 officers and men, consisting of 1 brigade of field artillery, 1 brigade of fortress-artillery, 4 battalions of infantry, 2 companies of light infantry, and 1 regiment of cavalry. The naval force consists of a torpedo-launch and a transport. Commerce is carried on by sea and river. The leader product is cacao. There are estimated to be 47,200,000 cacao-trees in the coast provinces, and in 1900 the production was 18,290,000 kilogrammes. Of vegetable ivory, another value, the production rose from 5,620,800 kilogrammes were exported. The export of sugar was 1,733,500 kilogrammes; of coffee, 2,300,
000 kilograms. The rubber export was 501,000 kilograms. The forests of rubber-trees have been nearly exhausted, but many trees have been planted in recent years. The Indians wash gold from stream beds, and at Esmeraldas an American company is working with hydraulic machinery, obtaining both gold and platinum. At Zaruma quartz is mined. Silver is also found. Copper, lead, iron, sulfur, and petroleum exist, but are not exported. The total value of imports in 1900 was 13,431,170 sucre; of exports, 15,419,222 sures. The principal imports are cotton goods, woolens, machinery, and hardware. The export of cacao in 1900 was 10,700,881 sucre; of ivory-nuts, 1,400,783 sures; of rubber, 1,968,698 sures; of silver coin and bullion, 349,876 sures; of Panama hats, 321,367 sures. Of the total imports Great Britain sent 29 per cent., the United States 25 per cent, Germany 9 per cent, and France 9 per cent. Of the exports France took 35 per cent., the United States 20 per cent. Germany 17 per cent, and Great Britain 15 per cent.

Navigation. The number of vessels in the ocean trade entered at the ports of Ecuador during 1900 was 862, of 55,358 tons; cleared, 850, of 50,651 tons.

The Posts, Telegraphs. A railroad from Duran, opposite the port of Guayaquil, to Chimbo, 65 miles, is being built and extended to Quito, 29 miles having been completed beyond Chimbo in 1901. In 1900 there were 61,983 telegrams, 4,801 female were clerks; 4,072 males and 2,553 females were in the professions, 156,023 males and 2,218 females were engaged in religious work and in teaching; 3,471 clergymen and ecclesiastics and Jewish rabbis and 113,483 readers of the Koran, 40,441 students and 20,579 children above the age of ten. 4,934 teachers of all kinds; 29,201,000 letters in the internal and 1,506,000 in the international service and 6,347,000 newspapers and packets.

Egypt, a principality in northern Africa, tributary to Turkey and under the military occupation and the political and financial control of Great Britain. The government is an absolute monarchy of the Mohammedan type, modified by the law of primogeniture and the introduction of a Council of Ministers, and is subject to the control of the British diplomatic agent. The Khedive, or Viceroy, is Abbas Hilmi, born July 14, 1874, who succeeded on the death of his father. His heir apparent is Prince Mohamed, born Feb. 20, 1899. The British occupation has lasted since the suppression of the military revolt led by Arabi Pasha in 1881. The British have exercised a decisive voice in all important measures. The British army, including the Egyptian guards, is 45,000 men, and is engaged in the public force, including the army of occupation, 1,712 males and 2,683 females were domestic servants, 5,308 males and 30,229 females over ten years of age had no occupation and 10,976 males and 10,566 females were under ten years of age. Cairo, the capital, had 570,062 inhabitants in 1867; Alexandria, 318,706. Of the total foreign population over seven years of age 74 per cent. could read and write, of the sedentary Egyptian population only 5.8 per cent.

Finance. The revenue in 1901 was £ E. 11,441,095 and the expenditure £ E. 9,805,224, leaving a surplus of £ E. 1,552,000, of which £ E. 660,000 were paid into the general reserve fund, £ E. 267,000 were paid into the economies fund, £ E. 62,000 were not realizable for the sinking fund, and £ E. 559,000 went to the Egyptian Government. The revenue in 1901 was £ E. 10,484,000, and expenditure £ E. 9,822,728. For 1902 the budget was estimated at £ E. 11,030,000, including £ E. 215,000 contributed from the general reserve fund. The revenue from ordinary sources was estimated at £ E. 10,844,400, of which £ 200,000 came from the land tax, £ 172,000 from other direct taxes,
there is perpetual irrigation, cotton, sugar, rice, corn, wheat, and cucumbers and other vegetables occupy the ground throughout the year. In Upper Egypt the land is irrigated at high Nile and one crop of millet or vegetables is obtained except where the canals permit of repeated irrigation and the cultivation of cotton and sugar-cane. The reservoir at Assiout and the impoundage at Assiout store 1,065,000,000 cubic meters of water, and when the irrigation canals are completed large tracts of new land will be made available for high culture. The cotton crop in 1900 was 6,510,000 kantars of 50 kilograms. The exports of cotton were 4,868,996 kantars, valued at £ 15,030,000; exports of sugar, 53,729,309 kilograms, value £ 573,496. The total value of merchandise imports in 1901 was £ 15,244,939, and of exports £ 15,730,088; imports of specie were £ 3,099,078, and exports £ 2,493,172. Imports of animals and animal food products were £ 855,012, and exports £ 112,588; imports of hides, skins, and leather and its manufactures were £ 219,500, and exports £ 90,562; imports of other animal products were £ 80,551, and exports £ 63,825; imports of cereals and vegetables were £ 1,706,352, and exports £ 2,649,970; imports of provisions and drink were £ 54,315, and exports £ 80,471; imports of spirits and oils were £ 812,867, and exports £ 19,578; imports of books, paper, and paper material were £ 231,641, and placed upon a liberal basis imports of coal, wood, and wood manufactures were £ 2,139,420, and exports £ 15,979; imports of stone, lime, glass, etc., were £ 407,683, and exports £ 1,497; imports of textiles were £ 324,710, and exports £ 25,524; imports of metals and metal manufactures were £ 2,452,241, and exports £ 11,993,307; imports of metals and metal manufactures were £ 1,744,084, and exports £ 4,187; imports of tobacco were £ 565,621; imports of miscellaneous merchandise were £ 880,142, and exports £ 18,008. The value of raw cotton exported was £ 2,414,681. The quantity of raw cotton exported was 6,123,350 kantars, valued at £ 11,533,277. Of £ 14,112,370, the total value of imports of merchandise in 1900, the value of £ 12,429,304, and of £ 16,730,610, the total value of exports, the value of £ 16,488,911 passed through the port of Alexandria. The values of imports and exports to various countries in 1901 are given in the following table:

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<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>£ E. 5,568,498</td>
<td>£ E. 8,018,011</td>
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<tr>
<td>France and Algeria</td>
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<td>Belgium</td>
<td>420,785</td>
<td>83,033</td>
</tr>
<tr>
<td>China and Japan</td>
<td>116,900</td>
<td>114,900</td>
</tr>
<tr>
<td>Greece</td>
<td>137,070</td>
<td>6,097</td>
</tr>
<tr>
<td>British Mediterranean colonies</td>
<td>190,708</td>
<td>6,034</td>
</tr>
<tr>
<td>Morocco</td>
<td>49,885</td>
<td>167</td>
</tr>
<tr>
<td>Persia</td>
<td>195,444</td>
<td>1,938</td>
</tr>
<tr>
<td>Total</td>
<td>£ E. 15,844,929</td>
<td>£ E. 15,730,988</td>
</tr>
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Navigation.—The number of vessels in the foreign trade entered at the port of Alexandria during 1900 was 2,530, of 2,787,619 tons, of which 673, of 1,022,834, of grain and various kinds in the winter. In Lower Egypt, where

Commerce and Production.—Cotton, sugar, and rice are grown in the summer; rice, sorghum, and wheat in the winter; and grain of various kinds in the winter. In Lower Egypt, where
Austrian; 135, of 222,706 tons, were Italian; 1,399, of 175,938 tons, were Turkish; 84, of 166,425 tons, were Russian; 16, of 90,541 tons, were Greek; 35, of 58,450 tons, were German; 26, of 49,436 tons, were Swedish and Norwegian; and 64, of 58,788 tons, were of other nationalities. The total number cleared was 1,274, of 2,364,572 tons, of which 974, of 1,019,088 tons, were British; 110, of 292,076 tons, were French; 129, of 251,387 tons, were Austrian; 136, of 225,134 tons, were Italian; 1,364, of 175,146 tons, were Turkish; 85, of 163,769 tons, were Russian; 109, of 78,924 tons, were Greek; 35, of 58,427 tons, were German; 22, of 42,038 tons, were Swedish and Norwegian; and 62, of 62,161 tons, were of other nationalities.

Railroads, Posts, and Telegraphs. — The Government railroads on Jan. 1, 1902, had a length of 1,383 miles, and private companies owned 780 miles of agricultural roads. Of the state railroads 658 miles were in the delta and 435 miles in Upper Egypt. The number of passengers carried on the state railroads during 1890 was 15,428,500; of freight, 2,856,000; gross receipts, £ 2,158,877; working expenses, £ 971,495, being 45 per cent. of the receipts; net earnings, £ 1,187,382.

The number of letters and postal cards handled by the Government post is 1,427,000, of which 1,375,000 in the internal and 2,920,000 in the international service; newspapers, etc., 8,461,000 internal and 1,280,000 international; parcels, 197,000 internal and 90,000 international; post-office orders 625,500; value £ 17,191,000.

The telegraphs owned and operated by the Egyptian Government have a total length of 2,193,300 miles. The number of inland telegrams sent in 1901 was 4,250,571.

Internal Affairs. — Egypt under British control is making a slow but appreciable advance in the direction of civilized government. The fiscal system is on a sound basis. In the general administration no radical change is contemplated. The institution of slavery is practically extinct. The corvée has been abolished in its oppressive features. The curfew is no longer employed as an instrument of government. The judicial system and the organization of the police admit of further improvement. The trade law and order are prevailing. New prisons and reformatories have been built, and the treatment of prisoners is in conformity with the principles generally adopted in Europe. Hospitals have been established, where the sick receive proper care. The lunatic is no longer treated as a wild beast. Education in all its branches has received a great impulse. The army is well organized and efficient, and all the abuses of the old recruiting system have been swept away. The principal irrigation works have been completed. Means of locomotion by rail and road have been improved and extended. The Government has taken steps to enable the fellahin to shake themselves free from the grip of the money-lenders. The result of the experiment, which has been going on since 1899, indicates that the peasants will not use the advantages offered them to incur fresh loans. The usurers charge from 40 to 100 per cent. per annum on their loans. In 1902 an agricultural bank was founded with a capital of £2,500,000, which makes advances to fellahin on easy terms. The Government guarantees the repayment of the advances in the event of the failure of the crops. As a special feature of the scheme, cases of slave-dealing and kidnapping come before the courts. In 1902 a provincial governor was retired and an influential pasha and several police officers were imprisoned for applying torture to extract a confession from cattle-thieves who had robbed the Khedive. The plague and the choler appeared in Egypt in 1901 and continued in 1902. Officials found difficulty in dealing with the plague, owing to the habits and prejudices of the people.

The Egyptian Sudan. — The Mahdi and the Khalifa having ruled the Soudan for sixteen years, the latter was defeated by an Anglo-Egyptian army on Sept. 2, 1898, and on Jan. 19, 1899, a convention was signed at Cairo by representatives of the British and the Egyptian governments in accordance with which the territory south of 22° of north latitude is administered by a governor-general appointed by the Khedive with the approval of the British Government; the Egyptian and British flags are used together; laws are made by proclamation; no duties can be levied on imports from Egypt, and duties on goods from other countries shall not exceed those levied by Egypt; the importation or exportation of slaves is prohibited, and special attention is paid to the provisions of the Brussels act of 1890 regulating the importation and exportation of firearms and ammunition and of spirits.

The Soudan is divided into the provinces of Khartoum, Dongola, Berber, Kassala, Senaar, and Kordofan and the districts of Wady halfa, Dosea, and the Eastern, for each of which is a Muqr, or military governor. The estimated revenue of 1901 was £ 224,374, and the expenditure was estimated at £ 614,095, leaving a deficit of £ 389,721 to be paid out of the Egyptian treasury. The total area of the Egyptian Soudan, extending southward to Albert Nyanza and east and west from the Red Sea to Wadal, is estimated at 950,000 square miles. The population which was formerly estimated at 10,000,000, but has declined under the rule of the Dervishes. The frontier between the Italian colony of Erythria and the Soudan has been delimited by a joint commission. The port and district of Massawa, which before the Mahdist revolt were occupied by Egypt, now belong to Italy; Zeila and Berbera belong to Great Britain; and Harar belongs to Abyssinia. The Soudan was placed by the British under an embargo during the Mahdist régime, and all trade ceased excepting a few surreptitious trade laws and orders have been declared open for traffic on Dec. 12, 1899; but the trade in gum arabic, ostrich feathers, ivory, gold dust, and skins has not returned. Ebony, rubber, gum, and other products which can be obtained on the White Nile and the rich lands on the Blue Nile are adapted to grow wheat as well as sesame, millet, diurra, and pulse, which are now cultivated. In the northern part of the country regular government has been restored and industries have in some measure been revived. Khartoum, which has again been made the capital, instead of the neighboring Mahdist city of Omdurman, is connected with Cairo by the Anglo-Egyptian military railroad and by a telegraph-line. The Governor-General of the Soudan is the Sirdar, Sir Reginald Wingate, who has Col. F. J. Nason for his civil secretary and Sir Rudolf von Slatin for inspector-general. The accumulation of swamp vegetation called the sudd, which renders the Nile and its tributaries impassable, has been removed. The Nile is open the entire year from Khartoum to Gondokoro, the northern port of the Uganda Protectorate, which is 15 miles from Meroe. Occasional southern outposts of the Egyptian Soudan. Lado and Kiro are held by a Belgian force, and from those stations officers of the Congo State administer the enceinte on the Nile that was leased to the Congo Government. The Egyptian Soudan has been generally
troubling since its occupation by the Anglo-Egyptian forces. The Sultan of Darfur, who pays tribute to the Sultan of Khartoum, had incurred trouble with his own people, against whom he sent an expedition. Government posts have been established in Kordofan, which is developing rapidly. In January, 1902, a camel caravan near Rumbeck and killed Lieut. Scott Barbour and 40 of his men. They were promptly punished by Lieut.-Col. Hunter from Khartoum with an expedition sent from Shambah to Rumbeck. The Baher-el-Gazal was occupied by an expeditionary force under Lieut.-Col. Sparkes, who has cut the Sudd in the Djur river. In order to permit men to ascend to Wau, the chief military station in the province. The only railroad project favored by the Government is the proposed line from Berber to Suakin, which will furnish a shorter outlet than the river-and-rail route northward through Egypt, and will supply the Soudan with fuel. Beds of coal have been discovered near Rosalite and Abu Harras. The Egyptians, who have provided the money for the conquest and development of the Soudan, regard with dismay the prospect of losing their trade with the Soudan, and European merchants fear that India will capture the market. In the southern part of the Soudan a little roadmaking in the uneven places will enable motor cars to transport freight all over the country. The money taken out of the Egyptian treasury to build the Klashin railroad and for barracks and other purposes in the Soudan is treated as an advance to be repaid at some future date. In 1901 the expenditure of Egypt in the Soudan was £ E. 417,000. The Nile delta has ceased to dispute the financial sacrifices Egypt is called upon to make for the Soudan. Of £ E. 1,287,000 in the special reserve fund on Dec. 31, 1901, the amount pledged for future expenditure, mainly in the Soudan, was £ E. 567,000. The finances of the Soudan are in a more satisfactory condition than was anticipated, but it is not yet possible to balance the budget without a heavy deficit, which for 1902 was £ 2,258,000. Vast tracts of fertile country and valuable mineral lands in the Soudan lie idle because there are no facilities for bringing them to market. Engineers who are studying the question of irrigation have found plenty of water available. Cotton of good medium grade is now grown. Wheat and sugar are grown in Egypt. In 1898, that is, five years before the first dam on the Nile, the British were fighting the Mahdi in the upper reaches of the Soudan. The work was completed and the structure formally accepted by the Kedive and the Duke of Connaught, with due ceremony, on Dec. 10, 1902.

Many changes have taken place in the staff of engineers entrusted with the work—so many that the officials who deserve the credit can not all be named here, but the original plan was carried out with but few changes, and the work was completed under Maurice Fitzmaurice as resident engineer.

The dam is located at what was the head of the first cataract. Its total length is 1,950 meters, or a little less than a mile and a quarter. It is laid in a straight line directly across the channel of the river, and not with the curve up-stream which is often introduced in such structures with a view to increasing their strength. To receive and retain the irrigation, a trench was excavated mainly through solid rock in the river-bed. In this was laid a wall of solid masonry, 29 meters in width at its deepest section and narrowing to 2 meters (nearly 7 feet) at the lower face. The lower face of the dam is very steep, and the
up-stream face is pitched at a less abrupt angle in order to secure greater stability. The height of crest or roadway above the zero mark of the long-established water-gage is 25 meters, and the high-water level as at present designed is 22 meters above the same zero. When full, the reservoir will hold 1,165,000,000 cubic meters of water, and its set-back will reach 143 miles above the dam. The total cost of construction as given by the best English authorities was £2,400,000, and the amount of work accomplished is divided as follows: Excavation, 775,000 cubic meters; masonry, 496,000 cubic meters; brickwork, 7,000 cubic meters; ashlar, 41,400 cubic meters; sluice-gates, 2,240 square meters; lock-gates, 530 square meters. At these figures, the initial rate of water-storage is about 1 cent for each cubic foot, but as this must diminish in a direct but irregular ratio from year to year, it will eventually disappear altogether when balanced against the accruing benefits.

During the period of high water that is beginning about the middle of July, when the percentage of solid matter in suspension is at its highest, the river will be permitted to flow through the sluices with as little hindrance as possible, bearing its rich alluvial tribute to be deposited in the lower valley. When all the sluices are open there will be little perceptible difference in the appearance of the river channel a short distance above and below the dam from what has always existed. As the flood subsides, usually some time in November, the water becomes comparatively clear, and the gates will then be closed. Under average conditions the reservoir should be at its full level in January, and this can be maintained until May, when the need of reserve water begins to be felt in the agricultural regions. From this time until the next flood is due in July the gates will be open, regulating the quantity of water in the lower Nile according to the special climatic conditions of the season.

At the western end of the great dam is a navigable channel with locks, each 75 meters long and 1½ meters wide, affording ample accommodation for any river craft likely to be in use upon the Nile. The lock-gates were designed by F. B. M. Stoney, who is also the designer and patentee of the sluice-gates used in the dam. The heavier lock-gates are worked by hydraulic power.

The present high-water line of the reservoir is as stated above; but the structure was intentionally designed to sustain a pressure resulting from a higher level, 28 meters above the zero mark being contemplated. This will nearly or quite double the capacity of the reservoir, and as the expense of raising the dam will be comparatively small (£250,000), it may be effected before many years.

Curious and interesting problems are involved in this initial step toward harnessing the great river of the Pharaohs. Similar dams or weirs
are in contemplation at the different cataracts, at the sources of the river, and near certain of the natural depressions in the desert lands adjoining. The great lakes Victoria and Albert Nyanza, Lake Tana, and Lake No will all be utilised. Of these lakes, Victoria and Tana are held back by natural dikes of rock, which will only need to be tunnelled or cut to make it possible to draw off the enormous accumulations of water there may be needed. Lake Albert will need to have its level raised by damming its natural outlet; this can be done, however, without asking any one's permission, as the whole region is in British territory and so nearly barren of inhabitants that possible claims for damages may be ignored. These plans, if carried out, would furnish about 16,000,000,000 cubic meters of water per annum. The additional water-supply is not the only question involved, for there are extensive swamps along the White Nile, which in years of extremely low water pollute the whole river, with serious and often fatal results to animal life. With the supply under control at its source, these swamps could be practically eliminated by preventing stagnation and checking the flow of the dreaded "green-water," which at times affects the stream even to Cairo.

It is remarkable that this is the first comprehensive scheme that ever has been attempted for reducing a large river as far as possible to the service of man. Some European rivers have been in a measure harnessed and reduced to service, but the Nile is unique in many of its surroundings and affords opportunities for ingenuity in the matter of engineering that can hardly be found in any other stream. The greater rivers of the world, as, for instance, the Mississippi and the Amazon, are far behind the reach of mortal power in its present development, and indeed their courses for the most part lie through a country that makes it impossible for any great engineering operations to be undertaken, even if they were desirable. Some of the smaller rivers in the arid regions of our own Western States are already largely subjected to a system of management that has already wrought wonderful improvements in the great deserts of the West, but the historic Nile affords thus far the most conspicuous instance of a great river so placed by nature that its productive powers can be readily controlled for the benefit of mankind.

The construction of the dam at Assouan with a view to future enlargement has a curious side issue. The original plans were considered by an international commission, and no sooner was it known among archeologists that the first cataract was chosen as the site for a dam than it became evident to those interested that the structures on the island of Philae would be submerged. This island, with its stately temples and colonnades, is among the most famous localities in a land rich in the treasures of antiquity, and archeologists all over the world raised such an outcry against the desecration that the engineer in charge, being a wise man, announced that the dam should not be built so high as was at first intended. This was something of a subterfuge, for these wonderful and majestic ruins will necessarily be to some extent submerged except when the river is flowing in its natural channel—that is to say, when the sluice-gates are open. Unfortunately, this period of the year corresponds in a general way with the season least attractive to Egyptian tourists, so that some of the finest spectacles of the temple architecture will be less accessible than heretofore to modern observers. The engineers have taken the precaution to strengthen and reinforce the ancient foundations of the temples, so that it is thought no harm will actually result from their periodical submergence.

FARMERS’ NATIONAL CONGRESS. The twenty-second annual meeting of the Farmers' National Congress was called to order by the president, the Hon. George L. Flanders, of New York, in the Masonic Hall, Oct. 7th.

The congress was welcomed to Georgia by Gov. Allen D. Candler, who in the course of his address said: "Most of the men that have shaped the destinies of this republic since it was born were farmers and sons of farmers. It is almost impossible to grow a man on a brick pavement. We propose that Georgia shall be the best place on earth for a good negro, and the worst place for a bad negro."

The congress was welcomed to Macon by the Hon. George A. Smith, president of the Macon Chamber of Commerce. He called attention to the fact that the largest residence in the city was built with the proceeds of one year's peach-crop of the owner. Another mansion was built from one season's hay-cutting. Cotton is not the only crop grown in Georgia. Mr. Smith called attention to the Torrens system of registering the title to lands, and strongly recommended it. He reminded his hearers that Henry W. Bellows had called Macon "the most beautiful city in America."

The addresses of welcome were responded to on the part of the congress by its first vice-president, the Hon. Harvey W. Dean, of Georgia, president of the Cotton Growers' Association of America. In speaking of the meeting just opened, he said: "It will put into motion a sentiment along the lines of national cooperation by the farmers of the country, which will be of untold profit and benefit to the great industry of which the Farmers’ National Congress has become the leading representative organization. The days of individual action are rapidly being relegated to the past, while the cultivation of a closer relationship along the lines of cooperative action is being fast inculcated in the minds of our people all over this country. The unprecedented prosperity of the United States is due in largest measure to the results of labor of our farmers. We are largely feeding and clothing the nations of the civilized world, and it is due to the vast exports of our cotton, meats, and cereals that the United States has within recent years become the creditor nation of the world."

In his annual address, President Flanders said: "The education that has been going on in the interest of the farmers during the past thirty years, at the State agricultural colleges, etc., has produced wonderful results, but all or nearly all are upon one side of the two-sided question, viz., upon the side of production, without touching the question of distribution or the question of the relation of the farmer to the governments under which he lives and by virtue of which he is protected. We are living in an age of organization; an age of corporations and corporate interests united for purposes which to them seem proper and just and
right; an age in which capital, generally speaking, is organized and handled right, so that when any problem arises, from the question of distribution to the question of legislation, they are prepared at short notice to determine that action should be taken, and then act as a unit. What is true of these combinations is not true of the agricultural population, and yet that population is ten-twentieths of the entire number engaged in industrial pursuits in this country. The scope of our educational work should now be such that it will extend to this class of our population as much information and knowledge of some kind of organization or through some means best suited to that end, of the fundamental principles involved in the economic questions of the times and of their political rights and obligations to themselves and others through the governments under which they live."

More than 800 delegates were present, from 31 States.

A Committee on Resolutions of one from each State, selected by the delegates from each State, was announced, and organized by electing Hon. Percival, of Iowa, chairman, and Prof. T. J. Wooster, of Georgia, geographer on an InterOceanic Canal. The chairman said: "Let us not waste too much time quibbling over choice of routes, but push to successful completion one or the other. We need the canal. It is to be our good right hand. Agriculture and manufacture stimulate each other. Agriculture must furnish much raw material; then, as more and more people engage in manufacturing, greater demands are made on agriculture to feed them. Roundly put, then, a stimulation in production of raw materials and increase in manufacturing must inevitably follow lessening cost of transportation and extending the limits of the markets. New England and the Middle Atlantic States, which constitute the most important manufacturing section of the country, have to ship to Europe to contest the home markets of the Old World, or to shift to cheaper supplies of the Pacific States by way of Cape Horn, Cape of Good Hope, and the Isthmus of Suez. These manufacturing regions must get some of their raw materials and foodstuffs from the States on the Pacific Ocean, and in turn these Pacific people desire the manufactured articles of New England. The water distance from New York to San Francisco is 15,000 miles; by an isthmian canal it would be 5,000 miles. The canal will give us a decided advantage over the other nations of the world in the competitive international struggle which is certain to take place to secure the industries of the great Pacific Ocean."

At the morning session, Oct. 8, a paper on Reciprocity—How may it affect Agricultural Interests? was read by the Hon. John K. Campbell, of Michigan. Mr. Campbell said he did not consider it just "to frame a bill that will admit the raw material free to benefit the manufacturer, and then shut the door on the manufactured product by a high tariff that enables the home manufacturer to charge his own price, imposing on the farmer the burden of the tax that benefits only the manufacturer." Referring to the "classical" theory, he said he favored a diversified system of agriculture, and that "every protection should be extended to the farmer that will aid him in developing the resources of his farm and in producing the product that the farmer, under proper protection, can develop."

At the afternoon session a paper on Forestry and the Preservation of Forests was read by George M. Whitaker, editor of the New England Farmer. He declared that not cotton nor corn, but "the tree is king!" He deplored the waste in cutting and incendiary burning, and emphasized the danger of a timber famine. "The supply of oak and hickory in the Northern and Eastern States has been so nearly exhausted as to create a heavy demand for timber lands in Tennessee, Arkansas, and Mississippi. The papers report that all the wagon-manufacturers of the North and East, as well as wood-working companies of all kinds, have their agents in these States for the purpose of buying up every available acre of timber land. This is emphatically a farmer's question. A tree is a product of the soil. The national Department of Agriculture is undertaking to assist the farmer in applying better methods by which the forest on his wood-lot will be improved without appreciably increasing the cost of harvesting the forest crop."

At the opening of the morning session, Oct. 9, Prof. Louis B. Magid, of Georgia, had a few minutes in which to present the claims of silk-growing in the United States. This he did so ably that a strong sentiment manifested favoring the congress favorable to the action of the national Department of Agriculture to determine the feasibility of silk-growing in this country.

Prof. Magid's paper was followed by one in favor of National Irrigation, by C. M. Heintz, of California. This paper presented some striking figures, including the following: "By the building of irrigation works the grazing of the open lands can be created. Take the Colorado delta, for example. Here is a body of about 900,000 acres of land arid and worthless. The Colorado river is of sufficient size, it is estimated, to reclaim 8,000,000 acres. This land was worthless without the water, and the water was worthless without the land. When they are brought together, there are 900,000 acres of land that will be worth, when fully reclaimed, an average of $100 an acre, or a total of $90,000,000. National expansion should be confined to building up our home country first. There is no sense in subduing the Fijian Islands until we have first reclaimed the arid wastes of America."

The opposing view of National Irrigation was presented in a paper by Gilbert M. Tucker, editor of the Country Gentleman. He called attention to the fact that "the vast development of our national contributions to the sustenance of the world has no necessary relation to the welfare of the men that raise the crops." He pointed out that what was wise when the nation was younger might be unjust and foolish when it had attained a certain development. Speaking specifically of the effects of national irrigation, especially as it would bear upon agriculture, he said: "Every district brought from aridity into cultivation, by irrigation, will for a long time export a considerable surplus of foodstuffs, and thus act to a certain extent in bearing down the market price. A second channel of mischief is the absorption by the new lands of the men and women who ought to supply, and in the normal condition of things would supply, an abundance of labor, at moderate prices, for established farmers. If the Government is going into a lucrative irrigation business, we can point out thousands of farms east of the Mississippi where we should like to see it tried, and also tens of thousands of farms east of the Mississippi where we should like to see it stopped, except under the correlative of irrigation—tile drainage—at the public expense. There is no doubt whatever that
the expenditure east of the ninety-eighth meridian of the millions of dollars proposed to be used west of that line, in irrigating and draining farms already operated, would increase their product by a larger volume than will be raised west of it, for generations to come, under the irrigation scheme.

At this point the children of the Georgia Industrial Home for Unfortunate Children marched upon the stage and sang patriotic songs.

At the afternoon session a paper on how can we best build up our merchant marine, by F. B. Thurber, of New York, was read. It favored ship subsidies. Mr. Thurber opened his paper by saying: "Great Britain is our chief competitor, and she has consistently followed the policy of sustaining new lines until sufficient commerce developed to make them self-sustaining, and then gradually reducing the subsidy. That should be our policy." He said further: "The percentage of American products carried in American ships has dwindled from 90 to 9 per cent. If we are to find a market for American products, they must be distributed by American ships. Streamship-lines work for their own countries precisely as rail-way-lines work for their terminal points. The original cost of building American ships is greater than the case abroad, and the wages paid to American officers and seamen are very much higher than those paid to the officers and seamen of competing foreign vessels, and the standard of life on our ships is far superior to the standard of living on the ships of our commercial rivals."

Opposition to ship subsidies was expressed in a paper by the Hon. Oliver A. Wilson, master of the Illinois State Grange. He began by saying that "in treating this important proposition there is but one fair way, and that is in the interest of the mass of citizens," and he declared that "instead of benefiting the masses, it appears that the proposition for subsidizing our merchant marine is a scheme largely to increase the wealth of the few at the expense of the many." He pointed out that the reports of the Leland and other ocean steamship-lines recently bought by American capitalists showed that they did not need Government aid, because, he said, that the high subsidies of the French Government had not built up the shipping of that nation; that "the latest facts and figures go to prove that ship-building can be done in this country as cheaply as in Great Britain or anywhere else." In the opinion of workmen "receive higher wages, they accomplish more in a given time, so that the factor of higher price for labor is eliminated."

At the morning session, Oct. 10, a paper on Farm-Products in the Markets of the World was presented by O. P. Austin, chief of the Bureau of Statistics, Treasury Department. He showed that the American farmer is keeping pace with the world's demand for his products and will retain the market both at home and abroad. He said that "the application of scientific methods has enabled the American farmer not only to prevent the deterioration of the virgin soil which made this country the world's greatest producer, but an intelligent understanding of that soil and its capabilities, coupled with the use of new machinery and new methods, enables him to make its products of more value than he ever had before. The nation has a top lath out of every 40 of his wheat to pay transportation from Chicago to New York, now gets the same transportation for 1 bushel out of every 16."

A paper on A Bird's Eye View of the Farm-Products of the World, by John Hyde, statistician of the national Department of Agriculture, was rendered specially interesting by the use of the stereopticon. Charts that showed at a glance the relative standing of different countries as regards the principal agricultural products showed also the commanding importance of the United States as an agricultural country, and the great importance of our agricultural exports in maintaining a favorable balance of trade. Mr. Hyde also gave incidentally a history of the production of the principal cereals.

At the opening of the afternoon session a paper on The Labor Problem from the Farmer's Stand-point was read by John M. Stahl, editor of the Farmer's Call. He divided his subject into two parts, the first being the labor problem on the farm. He said that that of those things the farmer needed, the hardest for him to get is intelligent, conscientious labor. Among the remedies for the scarcity of farm labor he mentioned agricultural education, beginning in the primary school in the country; better appreciation of the advantages of farm life in developing character; better treatment of farm hands; and the telegraph-line to farms from the cities. In treating the second division of his subject—the labor problem in the city—he pleaded the cause of the "innocent public" which was often the chief sufferer from strikes or lock-outs; opposed compulsory arbitration as impracticable, but favored conciliation, and, that failing, voluntary arbitration; and closed with a denunciation of both the open and the subtle lawlessness that too often appeared in the conflict between labor and capital, which should be good friends.

The following resolutions were adopted by the congress:

"That we favor the policy of reciprocity when it can be used to enlarge the markets for our agricultural products, and we indorse the words of the late President McKinley that we 'should take from our customers such of their products as we can use without harm to our industries and labor.'"

"That we express our sincere regret at the present deplorable conditions of business caused by the conflict between capital and labor, and we declare ourselves strongly in favor of settling all such difficulties either by conference or arbitration."

"That we express our earnest hope that the rural free mail-delivery system, and favor its further extension as rapidly as is consistent with public policy, until the rural population of the entire country receives the benefit of this system."

"That we urge upon Congress the need of the early passage of the bill now pending for the establishment of the Appalachian park and forest reserve."

"That we favor the speedy enactment of a law by the Congress of the United States to prevent the adulteration of any article used for human food in any form; and that such laws should carry sufficient penalties to make them effective."

"That we favor the discontinuance of the distribution of seeds, except of new and improved seeds, which we recommend shall be distributed under the direct supervision of the Department of Agriculture at Washington."

"That we favor and urge on Congress an increase in the appropriation to each State and Territory for experiments in agriculture by the sum of $15,000."

"That we respectfully urge our representatives in Congress to make more liberal appropriations for the Agricultural Department, which embraces within its scope of work the largest and most useful of all the industries of the Union."

"That we recognize with pleasure and gratifica-
tion the growing usefulness of the national Department of Agriculture, and the earnest efforts being made by the heads of that department, the Hon. James Wilson, to encourage scientific and diversified farming, to gather correct statistical information regarding the annual yield and distribution of all crops, and otherwise to foster and protect the agricultural interests of the whole country.

"That we condemn the use of adulterants in the manufacture of food and clothing as being detrimental and injurious to the business interests of the people; and we respectfully request the Congress of the United States to enact such laws, of uniform application in all the States of the Union, as will compel manufacturers of food and clothing to stamp or label their manufactured goods in such a way as to characterize the exact percentage of all articles used in their manufacture, before placing their products on the markets of the country, together with proper penalties for violation of these laws.

"That we commend the efforts of the national Department of Agriculture to determine the practicability of establishing silk-culture as an industry in this country.

"That we ask at the hands of the Congress of the United States a wider and more general recognition of the necessity for improvement of our public highways, and that appropriations be made annually from the general funds of the national treasury to broaden the work already undertaken by the Federal Government along that line.

"That we commend the efforts of the present Secretary of Agriculture to extend and increase the value and efficiency of farmers' institutes by cooperation and closer relationship in this line between the States and the national Department of Agriculture through the inauguration of farmers' institute work in a limited way in one of the present divisions of the Department of Agriculture; and we urge upon the Congress of the United States the importance of this work and the desirability of increasing the support for its maintenance, to be used by the Secretary of Agriculture according to plans that he may deem most wise.

"That corresponding supervision and authority in the expenditure of Government funds appropriated to the agricultural colleges of the States should be vested in the head of the Department of Agriculture in the interest of real agricultural education and the accomplishment of the purposes for which such appropriations were originally made.

"That the early construction of an interoceanic canal is deemed essential and imperative for meeting the objects and purposes above set forth, and we hereby earnestly petition the Congress of the United States to take immediate steps toward the opening of the interoceanic canal; and that said canal shall be built and controlled by the Government of the United States without the aid of any other nation."

The Congress adopted an important amendment to its constitution, offered by the Hon. William L. Ames, of Wisconsin, which reads as follows:

"The membership of this congress shall consist of as many members from each State and Territory as shall be equivalent to one from each congressional district, two at large, one for each State agricultural college and experiment station, and one for each national or State society or organization created and maintained to foster any agricultural interests in the United States having headquarters in that State, proof to be produced, if required, of the standing of such organization; and as many more as to the appointing power may seem wise up to, but not exceeding, 10 from any one congressional district provided by the Governors of the respective States, but if in case of pressure of other business, lack of interest, or other reason the Governors fail to make liberal appointments, a certificate of appointment by the secretary of the State Board of Agriculture or State agricultural society, or by the State vice-president of this congress, shall be sufficient credentials of appointment as delegate to the Farmers' National Congress.

"And, further, it shall be the duty of such appointing power to appoint delegates recommended by any member of this congress up to the prescribed number.

"All appointments shall be for the term of two years, beginning Aug. 1 of the year in which the appointment is made, regardless of where or when the annual meeting of the congress may be held; and should a delegate so appointed fail to attend the first annual meeting after his appointment, and also fail to render a valid excuse for such neglect to the power that appointed him, another may be appointed in his place the following year.

"Provided always, however, that any delegate shall have been properly appointed under the constitution of the Farmers' National Congress and has attended four of its annual meetings shall be a life-member and shall be entitled to every privilege and right of any member of the congress as long as he shall comply with the required annual payment of dues and his conduct continues acceptable to the congress.

"The vote of any State or Territory is not to exceed in any case the number of its congressional districts, plus 2, and 1 for each of its State agricultural institutions and State or national societies or organizations, as prescribed in the first paragraph of this amendment."

The congress was lavishly entertained by Macon and Georgia. At an expense of several thousand dollars a complete display of Southern products had been gathered in large tents near the Academy of Music, where it was convenient for the delegates to the congress to inspect it. A Southern barbecue was enjoyed by more than 2000 delegates and guests. Receptions and carriage drives were given to the ladies accompanying the delegates. At the close of the congress the Georgians Southern and Department of Agriculture in a special train to Palatka, Fla.; and on their return to Macon the Macon, Dublin and Savannah Railway took them on a special train to Savannah, where they were entertained by a trip down the river to the ocean, a banquet being served on board; by a clambake, rides about the city, etc.


FEDERATION OF CHURCHES. The second annual conference of the National Federation of Churches and Christian Workers in the United States was held in Washington, D. C.,
February 4 and 5. Seventy-five delegates were enrolled, representing 7 States, 11 denominations, and 15 organized federations of States and cities. In response to an address of welcome by the Rev. J. N. Butler, of Washington, Mr. J. Cleveland Cady, president of the New York Federation, said that he believed that great as might be the practical power gained for righteousness by the cooperation of the several branches of Christ's Church, the greatest gain would be the spiritual gain born of "the heart and good-will toward men." The report of the secretary, E. B. Sanford, gave a detailed account of the work of the year, mentioning the establishment of federations in a considerable number of cities and towns, and of State federations in New York and Ohio. Different methods of work were taken up in different places according as circumstances might suggest. Among those mentioned in the present report were house-to-house visitation, the general canvass of neighborhoods, efforts to bring various churches into closer fellowship and cooperation, and measures for preventing overlapping and collision. A part of the duty of the general secretary had been to make what might be called missionary tours, in which he went to several cities and towns, met the pastors and laymen of the several churches, and explain to them the principles and methods of organization under the plan of federation. Speaking of the Possible and Impossible in Church Federation, the Rev. L. C. Barnes, of Pittsburg, characterized as the impossible, and indeed, undesirable thing, ecclesiastical union, saying that it concentrated attention on the principle of difference, and that this was sure to result in wider ecclesiastical divergence. The possible and desirable thing was Christian cooperation, which drew mind and heart away from the things in which Christians differ, to those in which they could join heartily as workers together with Christ. In an address on the way in which churches can unite for social work, the Rev. Walpole Warren, of New York, maintained that the denominations were desirable, in that each had its own particular work to do. Other subjects of discussion concerned Home Visitation, the Church Federation of Great Britain, and the work of the National Council, and the Anglican Church. In the last paper the suggestion was made by Mr. Benjamin G. Welch that members of the church who move away from home be given local addresses and be corresponded with as formal associates, while they still retain their connection with the home church.

At the meeting of the Executive Board of the National Federation held in New York City Nov. 5, the secretary made report of two trips he had made to the Middle West—one in the spring and one just completed—covering together about 10,000 miles of travel. The way had been prepared by correspondence for meetings which brought together many of the men who had in charge the home mission and church extension interests of denominations representing nine-tenths of the English-speaking church membership in the States of Michigan, Illinois, Wisconsin, Minnesota, South Dakota, Iowa, Kansas, and Nebraska. With entire and earnest unanimity of action steps were taken in all those States to secure the appointment of representatives from the denominational bodies, to meet in conference and deliberate on the business of the latter.

A meeting of delegates appointed by the leading denominations, held in Lincoln, Neb., Oct. 29, by unanimous vote, organized the Nebraska Federation of Churches, with a constitution similar to those of the New York and Ohio federations. Similar conventions were to be held at Baraboo, Wis., Nov. 11; Lansing, Mich., Dec. 10; and Chicago, Ill., Dec. 18. In Chicago, Milwaukee, Minneapolis, St. Louis, St. Paul, Kansas City, Topeka, and Omaha the interests of local federated action and organization had been placed under the care of committees. The General Conference of the Methodist Episcopal Church, South, had provided for the appointment of representatives to attend the meeting of the National Federation in 1903. The General Missionary Convention of the Disciples of Christ had, by resolution, approved the spirit and purpose of the work of the Federation. In a summary of the work of the Federation and what it has done during the term of its operations, published by the national secretary, its work is defined to be to promote the formation of federations in every State and community for the purpose of securing cooperation between churches and Christian workers of all denominations and of making more effective the prosecution of their common interests. During its career it had brought about the organization of State federations in New York, Ohio, Nebraska, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, and Kansas; and had aided the work of State organizations in Maine, Rhode Island, and Pennsylvania. Local federations had been organized in 24 cities, having an aggregate population of nearly 6,000,000. Of these 24 federations nearly all sprang from the direct initiative of the National Federation. Several federations had taken effective action for civic, social, and moral righteousness, and by putting a stop to sources of corruption had accomplished results that were possible only by united action. In some cases federations had made their work the elimination of needless and competitive churches and the establishment of churches in destitute places; and it was believed that through mutual understanding and wise counsel a better and more economical use might be made of funds contributed for the Interest of Social and Civic Righteousness, Why a New England City needs Federation, Federation from a Laymen's Point of View, Cooperation in Home and City Work, and the National Affiliation. In the last paper the suggestion was made by Mr. Benjamin G. Welch that members of the church who move away from home be given local addresses and be corresponded with as formal associates, while they still retain their connection with the home church.

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ing with the distribution of population, of church settlements, and charitable institutions; the influence of the national and frequent changes of nationality which some neighborhood undergo. For effective work, the city is divided into assembly-district or ward sub-federations, and a parish system is instituted, under which each block is assigned to a church or cooperative organization. These cooperative agencies report yearly through the central federation all families with definite religious preference to congregations of their creed, while families without such preferences are given into the charge of the church supervising the blocks in which they live. Through the same agencies watch is kept upon all vicious institutions in the several districts and blocks in order that the power of the federation may be brought to bear against them through the officers of the law. Through them also interest is fostered in the improvements of schools and the maintenance of playgrounds, parks, and libraries.

Federation in Great Britain.—The Free Church Year-Book for 1902 represents that, according to the latest returns, the Free Churches of England and Wales have an aggregate of 1,940,000 members. The Bull of the Anglican Church is 1,974,629. The figures for the entire English-speaking world indicate that the Free Church membership is more than 18,000,000, and the Anglican membership a little more than 3,000,000.

National Council of Evangelical Free Churches.—The seventh annual meeting of the Evangelical Free Churches was held in Bradford, beginning March 11. The Rev. Dr. W. J. Townsend, of the Methodist New Connexion, presided and delivered an opening address on the subject of the Free Church of England: Its Divine Call. In it he suggested the thought as a gladdening and a sobering one that this, the youngest of the great organizations of the land, was yet the greatest, and covered at least 8,000,000 of adherents. The annual report showed that since the meetings of the previous year at Cardiff the number of councils had increased from 220 to this time, and had diminished proportion of new councils, owing to the fact that the entire area of England and Wales was nearly covered already. A few councils since the last annual meeting had changed their name and other had been merged in larger councils. The fears formerly entertained that the movement would become political had not been realized, and not more than a dozen councils "had struck on this rock." The councils were increasingly doing solid spiritual work. The district federations were perfecting their organizations and readjusting their areas. The three missioners of the National Council had each held missions in all parts of the country, with crowded services, many conversions, and quickening of the spiritual life of the churches.

Cycling mission bands had been very active in the villages during the summer. The Social Purity Crusade carried on by the Central South London Council had led to the closing of 300 disorderly houses. The National Council had taken an active part in defense of progressive and unsectarian education against the attacks of a "clericalizing government. A feature of the year had been the launching of the Free Church Girls' Guild, which had been taken up by 80 councils, while about 40 workers in addition were engaged in the villages. About 3,000 girls had been brought within the sphere of the movement. The proposed federation of non-conformist churches should be enabled to acquire land compulsorily for the erection of places of worship when they can not get land by purchase, and to enfranchise on equitable terms held land acquired by them for a special religious purpose, and to have the right of holding tenancy, urging local councils to take action against gambling, and calling for rigorous enforcement of the existing law, with increased municipal and administrative powers for the suppression of betting; welcoming the Government's bill to amend the law relating to the sale of intoxicating liquors and to drunkenness and to provide for the registration of clubs, and appealing to the Government to introduce at the next session a bill dealing radically with the licensing system on the line of the recommendations of the minority report; and reaffirming the resolutions of the previous year respecting secondary education.

These resolutions protested against the application of local rates to the establishment or maintenance of denominational schools privately managed, and expressed the opinion that the only solution of the education question was the creation of one local and directly representative authority, in areas of sufficient size, responsible for all grades of education. Among the subjects treated in the addresses and papers delivered and read to the meeting were Housing (Rev. Dr. Clifford); The Attitude of Free Church Councils to the Problems of the Use of Wealth; Free Church Twentieth-Century Funds: the Opportunities they Give Us; How Successfully to Work a Free Church Council; Twentieth-Century Evangelism; The Federation Movement: a Link between the Nations; and the Free Church Boys' Camp Movement.

A national conference of Free Church Councils to consider the education bill was held in London April 15. The Rev. Dr. W. J. Townsend, president of the National Council of Free Churches, presided. In his opening address the chairman declared that what was said to be concessions to non-conformists in the education bill were found to be "aggravations of the injustice under which they had lived. The bill aimed to destroy the only education authority which had worked well for thirty-two years, and it changed the face of education in the country immeasurably for the worse. The proposals involved a new en-dowment of what was likely to be a diminishing proportion of new councils, owing to the fact that the entire area of England and Wales was nearly covered already. A few councils since the last annual meeting had changed their name and others had been merged in larger councils. The fears formerly entertained that the movement would become political had not been realized, and not more than a dozen councils "had struck on this rock." The councils were increasingly doing solid spiritual work. The district federations were perfecting their organizations and readjusting their areas. The three missioners of the National Council had each held missions in all parts of the country, with crowded services, many conversions, and quickening of the spiritual life of the churches.

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down in the Government bill, which was calculated still further to hinder education, greatly decrease the rates, inflict injustice, and create religious bitterness.

At a meeting of the General Committee of the National Council, June 2, reports were made of activity in all parts of the country in opposing the Education bill by the circulation of documents, the signing of petitions, and written letters to the editors of newspapers and addresses by representatives of the Free Churches.

FINANCIAL REVIEW OF 1902. The most important event of the year was the ending of the Boer War in South Africa through the acceptance, on May 31, by the Boer delegates to the peace conference at Pretoria of the terms of surrender imposed by the British Government, through Gen. Kitchener. These terms were, as briefly stated, that the burghers should lay down their arms and recognize the sovereignty of King Edward; the return to South Africa of all Boer prisoners, Great Britain undertaking that they shall not suffer the loss of liberty or of property, and that no action shall be taken against them where they have been guilty of a breach of the laws of war; that the Dutch language will be taught in the schools of the new colonies where the parents desire that this language shall be used in the courts of law where necessary; that the burghers will be allowed to retain rifles for self-protection and that military occupation of the colonies will cease as soon as possible and self-government will be substituted.

The total British losses in South Africa, as officially stated, from the beginning of the war, Oct. 10, 1899, to the ending of hostilities, which practically terminated with the capture of Lord Methuen's force by Gen. Delaere March 10, were 1,069 officers and 29,807 men who were either killed in battle or died from wounds or disease, 884 officers and 9,181 men missing and prisoners, and 2,937 officers and 68,311 men sent home as invalids. The British took 37,000 Boer prisoners; of the killed and wounded no statistics were given. The cost of the war to the British, as officially reported by the Chancellor of the Exchequer in presenting the budget on April 1, was $135,694,752. The direct and indirect borrowings on account of the war were estimated by the London Statist at $225,000,000 ($1,250,000,000). The last loan issued was for $26,000,000 on April 18, and another loan of about $10,000,000 for the restocking of the Boer farms and for other improvements in the Transvaal will soon be emitted. The British forces in the field during the war were about 290,000 men; the Boer force at the beginning was estimated at 50,000.

The effect of the war upon the gold production of South Africa is shown by the fact that from a maximum of 459,709 ounces in August, 1899, it fell to 19,906 in October, and the total for that year was 4,069,166 ounces. In 1900 no record of production appears after March, and the output for that year is stated at 251,891 ounces. In 1901 mining was resumed in May, and the production in that year was 238,901 ounces. For nine months of 1902 the output was estimated at 1,229,573 ounces, and it increased from 81,465 in February to about 190,000 ounces in October.

Another event of the year was the postponement of the coronation of King Edward and of Queen Alexandra, which were to have taken place on June 24, because of the illness of the King, which necessitated an operation for appendicitis. The ceremonies were finally held on Aug. 9, after the King's recovery, though they were of a much less imposing character than originally contemplated.

Prince Henry of Germany visited the United States in February, when he was enthusiastically received and entertained by the Federal, State, and municipal governments and by commercial and other bodies. In October the Crown Prince of Siam was a visitor to this country.

When the time arrived for the payment of the interest and of the first instalment of the Chinese indemnity, which were due July 1, the Chinese Government insisted upon such an interpretation of the terms as would permit payment to be made on a silver, instead of a gold basis. The United States Government assented to the change, but other powers refused; later, however, the terms were partially modified by these powers. Largely as a result of the payments of the indemnity, the market price of silver declined, and on Nov. 22 it fell to the lowest price on record, 22½ pence per ounce.

During the first half of the year there was more or less depression in the European markets, and particularly in the London Cotton Market. In France the Bourse was unfavorably affected in December, 1901, by a decline in copper shares, which fell was also reflected in the London market. Later copper loans were more to be obtained in the London market, which extended to Germany, and the situation in Russia was at times regarded as critical. Consequently French and German capital was largely diverted to London for employment, resulting in an enormous increase in the investments, especially by French bankers, in consols and in other securities and also in sterling bills in the British capital. As estimated late in October that the investments of France in foreign countries amounted to about $1,200,000,000, and that these investments in England alone were not far from $400,000,000. The plethora of French capital seeking employment greatly facilitated borrowings, through sterling bills, by American bankers, and it was estimated at the end of October that such loans were upward of $200,000,000. This large indebtedness of Americans will account for the sensitiveness of our markets to the changes in the transatlantic monetary conditions abroad which resulted from the efforts in September of the Bank of England to divert to Paris the drain of gold to New York, which was then threatened by the acute monetary tension and another loan of $25,000,000. When this market grew easier and gold exports hence to Paris became possible, the London discount and the bullion markets promptly responded to the changed conditions here and to those in Paris as indicated by the rate for exchange at the French capital on London.

The following is a tabular survey of the economic conditions and results of the twelve months ending Nov. 29, 1902, contrasted with those of the corresponding period ending Nov. 30, 1901:

<table>
<thead>
<tr>
<th>Economic Conditions and Results</th>
<th>1901</th>
<th>1902</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colts and currency in the United States, Nov. 30</td>
<td>$2,586,301,996</td>
<td>$2,645,555,994</td>
</tr>
<tr>
<td>Bank clearings in the United States, Nov. 30</td>
<td>$177,540,826,016</td>
<td>$189,080,280,998</td>
</tr>
<tr>
<td>Business failures</td>
<td>$11,510,169</td>
<td>$11,567,053</td>
</tr>
<tr>
<td>Imports of merchandise</td>
<td>$990,176,207</td>
<td>$962,57,927</td>
</tr>
<tr>
<td>Exports of merchandise</td>
<td>$1,474,254,190</td>
<td>$1,348,473,092</td>
</tr>
<tr>
<td>Grain and others</td>
<td>$1,474,254,190</td>
<td>$1,348,473,092</td>
</tr>
<tr>
<td>Wheat, meal, and others</td>
<td>$74,490,018</td>
<td>$630,850,000</td>
</tr>
<tr>
<td>Coal, iron, and others</td>
<td>$1,382,518,891</td>
<td>$1,348,516,000</td>
</tr>
<tr>
<td>Cotton, iron, and others</td>
<td>$10,485,144</td>
<td>$10,701,405</td>
</tr>
</tbody>
</table>
Money.—As was the case in the previous year, the feature of the monetary situation in 1902 was the continuous and increasing absorption by the Treasury of money from the banks through the fiscal operations of the Government. In December, 1901, the excess of receipts over expenditures was $97,426,966.53, and in January, 1902, this excess was $8,033,856.29. In the following month there was a reduction in the surplus revenues to $2,000,448.37, followed in March by a recovery to $8,395,976.67. In April the surplus fell off to $4,410,127.24, recovering in May to $10,762,881.58, and in June the excess of receipts over expenditures was $15,839,000.45, though provision had been made by Congress for the abolition of the war-revenue taxes imposed by the act of 1896, the repeal to take effect July 1. After the beginning of the new fiscal year the effect of the repeal of internal-revenue taxes was observable in the excess of expenditures over receipts in July by $7,507,876.48, for the first time since August, 1900, when the deficiency in the revenues was $820,244.12. In August, 1902, however, the above-noted deficiency was reduced to $2,015,674.14, the excess of receipts over expenditures for the first time since July, 1901. The items for customs payments were quite large, reflecting increasing imports, and internal-revenue collections were heavy, due to prosperous conditions of such industries as were taxable under those internal imposts which were in effect, and at the end of November the surplus revenues for five months of the fiscal year were $14,149,179, against $24,200,505 in the same period in 1901, when the major portion of the internal taxes were in force. This absorption of money through the fiscal operations of the Treasury had a direct influence upon the New York banks because of the fact that about 70 per cent. of the Government business is conducted at this center. In addition to the drain upon the banks in New York through fiscal operations there was in December, 1901, a notable movement into the Treasury caused by the action of banks in the interior remitting, through their correspondents in this city, large drafts for deposits at Washington for the purpose of substituting such lawful money for United States bonds held as security for circulating notes, the bonds so withdrawn from circulation being sold at high prices for them then ruling. This movement continued with but little interruption until about the middle of March, when Secretary Shaw, who succeeded the late Governor Beardsley as Secretary, suspended the purchases of United States bonds, which had been inaugurated by his predecessor, such suspension being mainly for the purpose of checking the withdrawal for sale of those of these securities which were pledged for circulating notes. With a view to relieve the monetary situation, which had become somewhat tense by reason of withdrawals of gold for export, and the above-noted absorption of money by the Treasury, Secretary Shaw sought to increase deposits of public funds in the depository banks throughout the country, but he was only partially successful, because of the fact that the bonds required as pledge for these deposits commanded such high prices that few of the banks would procure them for the purpose of qualifying for the receipt of public funds. Moreover, the tense monetary conditions were, for the reasons above assigned, chiefly confined to this central city and area, being much less intense in the interior; consequently there was little inducement for country banks to apply for Government deposits. In the early summer months the monetary tension relaxed, but by the middle of August stringent conditions again developed, owing to the concurrent absorption of money from the banks into the Treasury through fiscal operations and a movement of funds to the interior for crop and for business purposes, and also an enormous expansion of bank credits. In the following month the situation became so acute because of the low bank reserves that the Secretary of the Treasury was impelled to resort to expedients for relief. On Sept. 13 he announced a policy of designating as temporary depositories of public funds such banks as had free United States bonds, or those which were not pledged for deposits or for circulation. The Secretary also anticipated the payment of interest upon the public debt due Oct. 1, and on Sept. 20 he announced that he would divert to depository banks the full amount of internal-revenue and miscellaneous receipts, amounting to more than $500,000 per day for thirty or sixty days, or longer, should such a course be necessary. On Sept. 25 the Secretary directed the prepayment, with a rebate of 1/8 of 1 per cent. per month, of all interest on the public debt from Oct. 1 to Dec. 31, 1902, and in addition to this sum, to buy at 105 any of the United States 5-per-cent. bonds of 1904 which might be offered on or before Oct. 15; the price offered for these bonds was, however, so low that only $24,600 out of the $10,410,350 outstanding were presented for redemption. The above-noted measures of relief having proved entirely ineffectual in relieving the monetary tension, on or shortly after Sept. 29th at New York, the Secretary on Sept. 30 announced that he would accept as pledge for public deposits in the banks municipal or such other bonds as were permissible as investments by savings-banks of the various States, these bonds to be substituted for those of the Government on condition that the United States bonds so released be immediately deposited as security for new circulation; the object which the Secretary had in view was an increase in the volume of bank-notes. At the same time Secretary Shaw, as part of his general program at the Washington for the purpose of substituting such lawful money for United States bonds held as security for circulating notes, the bonds so withdrawn from circulation being sold at high prices for them then ruling. This movement continued with but little interruption until about the middle of March, when Secretary Shaw, who succeeded the late Governor Beardsley as Secretary, suspended the purchases of United States bonds, which had been inaugurated by his predecessor, such suspension being mainly for the purpose of checking the withdrawal for sale of those of these securities which were pledged for circulating notes. With a view to relieve the monetary situation, which had become somewhat tense by reason of withdrawals of gold for export, and the above-noted absorption of money by the Treasury, Secretary Shaw sought to increase deposits of public funds in the depository banks throughout the country, but he was only partially successful, because of the fact that the bonds required as pledge for these deposits commanded such high prices that few of the banks would procure them for the purpose of qualifying for the receipt of public funds. Moreover, the tense monetary conditions were, for the reasons above assigned, chiefly confined to this central city and area, being much less intense in the interior; consequently there was little inducement for country banks to apply for Government deposits. In the early summer months the mone-
000 more was in transit, but the condition of the foreign-exchange market was such as to make entirely improbable the importation of further sums. On Oct. 7 Secretary Shaw was offered a block of $5,000,000 United States 4-per-cent. bonds of 1925 at 138. He declined to accept them, though he expressed a willingness to consider the proposal and take an option upon the bonds, provided the bankers making the tender would offer a larger amount at a concession in the price. These bankers thereupon negotiated with holders of United States 4-per-cent. of 1925 for their exchange for municipal bonds, which had been accumulated in the course of the business of these bankers, and having succeeded in effecting such exchange for about $10,000,000 of the above-mentioned United States bonds, they offered them to the Secretary. On Oct. 17 Mr. Shaw announced that he had accepted the option on the $5,000,000 offered on the 7th, and that he would buy at 1371/2 and interest any United States 4-per-cent. bonds of 1925 that might be offered on that day and until the close of business on Oct. 20. The offerings on the 17th were $9,253,407, and on Oct. 18, $9,085,864; the total amount paid for the bonds on the completion of deliveries was $21,850,864. The Secretary also directed the payment of the November interest on the public debt of the United States amounting to about $2,300,000, without rebate. Early in November the Secretary suspended the substitution of State and municipal for United States bonds as security for deposits of public funds; the amount of substitutions then was $20,488,600. Secretary Shaw also announced that no further increase would be made in deposits of public funds in the banks.

Average cash holdings of the New York associated banks at the beginning of December, 1901, were $245,465,700. The maximum for the twelve months ending Nov. 29, 1902, was $370,622,600 Feb. 1. By May 17 the cash had been reduced to $242,387,000, largely by reason of the suspension, March 15, by Secretary Shaw of bond purchases. There was a recovery by July 26 to $253,226,700, due, in part, to the return movement of money to this center from the West. This was followed by a gradual reduction in the cash until the 17th, when the Treasury, later by the movement of currency to the interior, and by Oct. 11 the cash was reduced to $210,612,500, the minimum of the year. The highest cash balances in the banks on the 17th caused a recovery in the cash to $338,452,800 by Oct. 25, and at the end of November it was $256,745,500. At the beginning of December, 1901, the average loans of the associated banks were $857,169,200. After Dec. 21, when the minimum of the twelve months, $855,003,400, was recorded, loans rapidly expanded to $938,191,200 by March 1; this was not only the maximum of the year, but the highest on record. Then came contraction, influenced by a reduction in bank reserves, and by April 26 the loans had been reduced to $803,394,100. After a recovery to $904,162,500 in the following week, loans were again reduced, reaching $881,070,400 by June 14. They were thereafter more or less rapidly expanded to $929,142,000 by Aug. 16 in anticipation of the effects of the abolition of the war-taxes, and then followed gradual reduction, owing to calling of loans and liquidations, to $865,450,400 by Oct. 18, the end of October, the lowest of the year. Average deposits of the associated banks at the beginning of December, 1901, were $940,668,500. They fell to $904,996,300 by Dec. 21, and thereafter there was a rapid rise to $1,010,474,200, the highest of the year and on record, by Feb. 21. After irregularly declining to $891,751,000 by May 24 there was an advance to $906,245,000 by Aug. 16, followed by a decline to $863,125,800, the lowest of the year, Oct. 18; at the end of November the deposits were $883,836,800. It should be noted that, beginning with Oct. 4, the amount of public deposits in the banks was separately reported; these, on that date, were $40,736,300, and by the close of November they were $40,189,900. The surplus reserve of the banks at the beginning of December, 1901, was $13,414,575. This was reduced to $3,455,025 by Dec. 14, recovering to $25,623,350, the maximum of the year, by Feb. 1, 1902. There was a fall to $3,112,900 by March 15, a recovery to $6,965,575 on the 29th, a decline to $2,649,525 April 5, and then came an irregular recovery to $15,709,275 by July 19. The effects of the drain of cash into the Treasury and to the interior and also of the expansion of loans and the consequent increase of deposits were observable in the decrease in the reserve to $1,842,050 deficiency by Sept. 20, for the first time since Nov. 18, 1899. There was a recovery to a surplus in the following week and an improvement in bank conditions thereafter; the reserve surplus at the end of November was $15,766,300. Computations of reserve based on the bonds of the National Park Company, owned by the Government, showed a surplus at the close of November of $25,828,775. One feature of the totals of the weekly bank statements, observable security market, in October until the first of the month, of the excess of loans over deposits beginning with the 4th. This was due to the practical transfer of cash to the capital and net-profit account, and this occurred for the first time since 1896; on and after Oct. 25 deposits were in excess of loans. Previous to October this year individual banks having large capital loaned in excess of their deposits, but in the above-named month from 20 to 22 banks pursued this course.

The extreme rates for money on call at the New York Stock Exchange during the twelve months under review were 35 per cent. and 2 per cent. The tone of the money market was firm in December, 1901, the rate gradually advancing after the middle of the month to 15 per cent. on the 31st, in anticipation of a large flow of money from the interior, predominantly from Chicago. In January, 1902, the market grew easier as the result of the return flow of money from the interior, the purchases of bonds for the sinking fund, and the liquidation of hi. In the following month, 2 per cent., the minimum of the year, was recorded. The tone became firmer in March, influenced by gold exports and by the suspension of bond purchases by the Treasury, and in April low bank reserves and continued gold exports kept rates comparatively high until the close of the month, when the tone became easier, influenced by increased deposits of public funds in depository banks. In May, during the derangement incident to failures of Stock-Exchange houses, money on call advanced to 25 per cent. After the excitement subsided, however, the markets returned to normal conditions, and the market was easy in June and until the middle of August, when the rate on call rose to 6 per cent., subsequently declining to 3 per cent. In September monetary tension developed as the result of a concurrent drain of money to the interior, abstractions by the Treasury through fiscal operations, and they were $879,828,000. Average deposits of the associated banks at the beginning of December, 1901, were $940,668,500. They fell to $904,996,300 by Dec. 21, and thereafter there was a rapid rise to $1,010,
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4-per-cent. bonds by the Treasury, when rates declined, and thereafter to the close of November the range for money on call was from 6 to 7 per cent. Time loans were 6 per cent. for thirty to sixty days, and 4½ to 5 per cent. for four to six months on stock collateral in December, 1901, and until after the middle of January, 1902, when the rates fell to 4 per cent. for all periods, and from February to April, inclusive, quotations were 3½ to 4½ per cent. for short and long dates respectively. In May there was an advance to 6 per cent. for short, followed in June by a decline to 4½ to 5 per cent. for all periods, and these rates remained practically unchanged until September. Then they rose to 6 per cent., pass a commission of from ½ to 1 per cent., equal to 7 and 8 per cent. per annum, in consequence of the monetary détente which then prevailed. In the latter part of this month and in October banks refrained from offering time loans, having so little money to lend that they preferred to employ it on loans secured for the greater part of the time that they were made with trust companies at the above-named rates. After the monetary tension was relieved, through bond purchases, rates declined to 6 per cent., without a commission. The market for time money was, however, firm in November, when the demand was greatest for short periods at 6 to 7 per cent.

Commercial paper of first class was 4½ to 5½ per cent. in December, 1901, so remaining until February, 1902, when it fell to 4 to 4½ per cent., recovering to the above-quoted rates in April, and declining to 4 to 4½ per cent. in June. In the following month there was a rise to 4½ to 5 per cent., in August to 4½ to 5½ per cent., and in September and October rates were nominal at 4½ per cent. for all periods. No local business was then transacted in paper, the banks being out of the market as buyers, and merchants desiring accommodation resorted to their banks for discounts. Derangement of requirements, however, small, collections being generally good and sufficient to meet current needs. It is noteworthy that at no time during the monetary détente did the market remain closed by the high rates, these being confined to the Stock Exchange.

The clearing of the New York associated banks during the clearing-house year ending Sept. 30, 1902, was $74,733,189,436, against $71,620,675,494 in the previous year. For twelve months ending Nov. 29, 1902, the clearings were $76,471,924,342, against $79,085,128,078 for the same time in 1901-02.

The condition of the New York Clearing-House banks, the rates of interest, exchange, and silver, and the prices of United States bonds on Nov. 30, 1902, compared with the same items for the previous two years, are as follow:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Nov. 30, 1900</th>
<th>Nov. 30, 1901</th>
<th>Nov. 30, 1902</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW YORK CITY BANKS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans and discounts</td>
<td>$904,449,100</td>
<td>$678,160,000</td>
<td>$789,808,000</td>
</tr>
<tr>
<td>Specie</td>
<td>150,800,000</td>
<td>170,185,000</td>
<td>185,840,000</td>
</tr>
<tr>
<td>Circulation</td>
<td>30,810,000</td>
<td>31,975,000</td>
<td>43,482,000</td>
</tr>
<tr>
<td>Net deposits</td>
<td>884,100,000</td>
<td>860,525,000</td>
<td>983,308,000</td>
</tr>
<tr>
<td>Legal lending</td>
<td>60,075,000</td>
<td>72,595,000</td>
<td>67,505,000</td>
</tr>
<tr>
<td>Required reserve</td>
<td>245,107,725</td>
<td>263,172,125</td>
<td>230,032,525</td>
</tr>
<tr>
<td>Reserve held</td>
<td>226,969,400</td>
<td>248,581,700</td>
<td>236,745,500</td>
</tr>
<tr>
<td>SURPLUS RESERVE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$10,985,675</td>
<td>$13,414,575</td>
<td>$13,789,300</td>
</tr>
<tr>
<td>MONEY, EXCHANGE, SILVER:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call loans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prime paper, 60 days</td>
<td>3 to 4½</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Prime sterling, 60 days</td>
<td>3½ to 4½</td>
<td>4½ to 5</td>
<td>6</td>
</tr>
<tr>
<td>Silver in London, per ounce</td>
<td>99d</td>
<td>90d</td>
<td>90d</td>
</tr>
<tr>
<td>Précis sterling, 60 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRINCIPAL:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York United States Bonds:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as coupon, 1907</td>
<td>11½ bzd</td>
<td>11½ bzd</td>
<td>10½ to 11½</td>
</tr>
<tr>
<td>as coupon, 1908</td>
<td>12½ bzd</td>
<td>12½ bzd</td>
<td>12½ to 13½</td>
</tr>
<tr>
<td>as coupon, 1909</td>
<td>10½ bzd</td>
<td>10½ bzd</td>
<td>10½ to 11½</td>
</tr>
<tr>
<td>as coupon, 1910</td>
<td>13½ bzd</td>
<td>13½ bzd</td>
<td>13½ to 14½</td>
</tr>
<tr>
<td>as coupon, 1911</td>
<td>10½ bzd</td>
<td>10½ bzd</td>
<td>10½ to 11½</td>
</tr>
</tbody>
</table>

The following is a statement of the average loans, specie, circulation, deposits, and legal tenders of the New York associated banks at the beginning of each quarter and at the end of November, 1902:

<table>
<thead>
<tr>
<th>DATE</th>
<th>Loans</th>
<th>Specie</th>
<th>Circulation</th>
<th>Deposits</th>
<th>Legal tenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1</td>
<td>$904,449,100</td>
<td>$104,806,800</td>
<td>$31,674,000</td>
<td>$695,304,100</td>
<td>$74,267,800</td>
</tr>
<tr>
<td>April 30</td>
<td>907,355,400</td>
<td>973,560,800</td>
<td>31,089,000</td>
<td>984,515,300</td>
<td>75,246,800</td>
</tr>
<tr>
<td>July 31</td>
<td>910,968,300</td>
<td>973,560,800</td>
<td>31,089,000</td>
<td>984,515,300</td>
<td>75,246,800</td>
</tr>
<tr>
<td>October 31</td>
<td>913,067,700</td>
<td>955,840,200</td>
<td>31,360,000</td>
<td>952,175,000</td>
<td>66,268,300</td>
</tr>
<tr>
<td>November 30</td>
<td>879,296,000</td>
<td>955,840,200</td>
<td>31,360,000</td>
<td>952,175,000</td>
<td>66,268,300</td>
</tr>
</tbody>
</table>

Stocks.—The stock-market was more or less unsettled during the greater part of December, 1901, by active money, and also by important declines in the price of some of the industrial properties, notably the United States Steel and American Sugar Refining common, an fact that was verified when compared with the prices of six months previously, and the latter to 103½ from 120 in the beginning of the month and 153 early in June. Toward the last week there was a decided recovery in the market, led by the anthracite-coal shares, the rise in which was influenced by the very satisfactory condition of the trade as indicated by the unprecedented large production for the year and by the maintenance of firm prices. Central New Jersey sold at 106½ as against 145½ Jan. 4, and Lackawanna was 238 Dec. 31 compared with 338 Jan. 3. The Heading stocks, Manhattan, St. Louis and San Francisco, and Chicago, Indianapolis and Louisville common also recorded notable advances. Among the exceptionally large transactions during the month were those in Amalgamated Copper of 2,555,000, and in American Sugar Refining of 1,050,000 shares. In January, 1902, the dealings in stocks were smaller, and though there was apparent inherent strength in the market, prices fell off on light offerings. There seemed to be a disposition on the part of speculators to await developments, an encouraging change between venture in the market. The movement by the State of Minnesota for the institution of a suit in the United

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States Supreme Court against the Northern Securities Company attracted attention, and one depressing influence was the embarrassment of a Western syndicate which had undertaken to consolidate a group of trolley and telephone lines, with a further event, somewhat discouraging in character, was the failure of the Crude Rubber Company. The floating of $30,000,000 debenture bonds by the Atchison, Topeka and Santa Fé Railroad Company was announced, and there were rumors of a large bond issue by the Erie. The deplorable Park Avenue Tunnel accident had an adverse influence upon the stock of the New York Central Company. This was followed by the announcement of an issue of $35,000,000 of new stock, through which shareholders would have valuable rights, and the market price of the stock thereupon recovered. The dividend on the Central New Jersey was increased during the month from 5 per cent. to 8 per cent. per annum, and that of the New York, Chicago and St. Louis second preferred from 2 per cent. to 3 per cent. Amalgamated Copper stock recovered because of the improvement in the situation. The annual report of the United States Steel Corporation was so favorable that it stimulated active buying of the shares. The London security markets were subject to rumors of pending negotiations, indicating a speedy ending of the war in South Africa, and this news had some influence on the speculation in American securities at the British capital, more or less contributing to a better tone here toward the close of the month. Among the important advances were: Lackawanna to 287¼, in Rock Island to 165, Chicago and Northwestern to 10, and Metropolitan Street Railway to 173. In February the depressing influences on the market were the phenomenally bad weather conditions between the 17th and the 28th, and also the effect of the Commissioner of Internal Revenue to enforce a ruling taxing collateral deposited as security for loans. The United States Supreme Court adjourned on the 3d, having failed to announce a decision in the matter of the application of the State of Minnesota for leave to file a bill of complaint against the Northern Securities Company, and therefore it did not appear that the suit would not be pressed. Interest in the matter was revived, however, by the action of President Roosevelt, who, on the 19th, directed the Attorney-General to file suit against the company on the ground that it existed in defiance of the antitrust law of 1890. Though the Supreme Court on the 24th rendered a decision denying the application of the State of Minnesota, the above-noted action by the President had an unsettling effect, because it was seen that if the Northern Securities Company had violated the provisions of the act of 1890 there were other concerns which were similarly situated. There was a severe fall in prices of stocks on the exchange on the 29th, but this was followed by an irregular recovery, and the market was generally strong thereafter, though the trading was comparatively small. Labor troubles were the prominent features in March, and the most serious was the strike of freight-handlers at New York. A lock-out was threatened by the cotton manufacturers in New Bedford, Mass., but the differences with the employees were compromised. The United Mine Workers had the major coal regions of Pennsylvania demanded an eight-hour working day, but through the mediation of the National Civic Federation a strike was averted. The bill of complaint in the action brought by the United States Government against the Northern Securities Company was filed in the circuit court for the District of Minnesota on the 10th, but this attracted little attention. There was some anxiety respecting the prospects for winter wheat, owing to the smothered growth in the Southwest, until copious rains tended to relieve apprehensions. Notwithstanding the above-noted unsettling features the tendency of the stock market was generally constructive, and showed improvements compared with the lowest of the month; one of the notable events was an increase in the dividend on Southern Railway preferred to the basis of 5 per cent. per annum. A prominent feature in April was a partial corner in Louisville and Nashville. This was brought about through the sale by the company of 50,000 shares of new stock, the issue of which had been authorized in 1893. The sale was made, however, before the new stock had been listed on the Stock Exchange, and, taking advantage of this fact, John W. Gates bought largely of the stock, intending to squeeze the short interest, but, in order to effect this purpose, he had to take an interest more than he could conveniently carry. He had secured control of the property, and if he forced a corner he would place himself in the embarrassing position of being technologically short of his own stock. He extricated himself from this position by turning over his control to J. P. Morgan & Co. When it was seen that a corner was threatened the whole market became unsettled, but after the impending danger had been averted there was a decided recovery in the entire list influenced by speculative manipulation on a large scale. Among the notable advances were Chicago and Northwestern common from 232 to 271, Illinois Central 141¼ to 153¼, Nashville, Chattanooga and St. Louis 89¼ to 122, and Michigan Central 137 to 192; Louisville and Nashville rose during Mr. Gates' operations from 105¼ to 133. The quarterly dividend on Amalgamated Copper was reduced this month to ¼ of 1 per cent., and that on Calumet and Hecla was also lowered. The United States Steel Corporation announced its intention to issue $250,000,000 of new bonds for the purpose of retiring with $200,000,000 of the issue a corresponding amount of preferred stock and converting the remainder of the bond emission into cash. The Rock Island obtained control of the Choctaw, Oklahoma and Gulf Railroad, and the St. Louis and San Francisco obtained control of the Savannah, Florida and Western, or the Plant system of roads. One event early in May was the collapse of what were known as the Webb-Meyer securities, involving the failure of three Stock-Exchange firms. There had been wild speculation in these properties, the result of manipulation, and the collapse was brought about through a sharp break on the curb market on the last day in April in International Power stock from 198 to 120. This attracted attention to Dominion Securities, Hackensack Meadows Storage Power, and North American Lumber and Pulp because of the successful connection of the Webb-Meyer syndicate with International Power. The market was again unsettled, after it. A lock-out was threatened by the cotton manufacturers at New Bedford, Mass., but the differences with the employees were compromised. The United Mine Workers had the major coal regions of Pennsylvania demanded an eight-hour working day, but through the mediation of the National Civic Federation a strike was averted. The bill of complaint in the action brought by the United
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The remainder of the month, though prices were generally lower at the end than at the beginning; one important exception was Canadian Pacific, which rose from 123 1/4 to 141 1/4. The anthracite-coal miners' strike continued throughout June, and an attempt at the beginning of the month by the leaders of the organization to induce the engineers, drivers, and men along the lines to join in the strike was partially successful. On the 18th a call was issued by John Mitchell, the president of the United Mine Workers' Association, for a convention to be held July 17 of all the coal-miners in the country, both bituminous and anthracite, to determine whether the former should also strike. Mining of anthracite coal was suspended throughout the month, the operators fearing that those who were willing to work would not be protected, but the washeries at the mines were operated and some coal was supplied to the market. The stock speculation was not greatly influenced by the coal strike, because it was felt that some way would be found for settling the troubles. The tone of the market was generally strong, though the volume of business was not large. One feature was a sharp rise in Chicago and Eastern Illinois from 139 1/2 to 195, and there was also an advance in Illinois Central from 150 1/8 to 156 1/2. These were accompanied by increases in the capital from $70,200,000 to $805,000,000, stockholders being given the privilege of taking the additional shares at par. Other noteworthy advances were sharp increases in Missouri Pacific, Wabash common and preferred, and St. Paul. The granting of a permanent injunction restraining the conversion of $200,000,000 of the United States Steel preferred stock into bonds caused a fall in the shares of the corporation. Though the Pennsylvania Railroad Company made a contract with the Postal Telegraph Company for the use of the lines of the Pennsylvania system to displace the service of the Western Union, the stock of the latter was not materially affected.

In July the stock-market was generally strong and at intervals buoyant. The efforts of the anthracite miners' organization to induce the bituminous miners to join in a sympathetic strike were largely unavailing; the latter considered themselves bound by existing contracts with their employers; this action of the bituminous miners removed a threatening feature in the anthracite market, and there were no serious disturbances caused by the anthracite miners at Shenandoah, Pa., leading to the calling out, by Gov. Stone, of the Pennsylvania militia. Strikes among the freight-handlers at Chicago resulted in a partial suspension of freight traffic until the 10th, when the strikers surrendered, there being labor disturbances in the bituminous-coal regions of Virginia and West Virginia, but these were unimportant. Among the decided advances in stocks during the month were those in Atchison, Missouri Pacific, and other Southwestern properties. St. Paul, Illinois Central, New York Central, Pennsylvania, Rock Island, Chicago and Eastern Illinois, St. Louis and San Francisco, and Colorado Fuel and Iron. Toward the end of the month the stocks which had been most rapidly advanced sharply declined, influenced by liquidation and by realizations. One feature was a contest for the control of the Colorado Fuel and Iron stock, which began in June and continued throughout the month. Another feature was the taking over by the St. Louis and San Francisco of the Chicago and Eastern Illinois. Though money rates were firm the anthracite was not unfavorably affected thereby in August, nor was it influenced by the continuance of the coal strike. The crop conditions were good, railroad earnings large, and the industrial situation was encouraging, and these favorable factors contributed to a confident feeling among stock speculators. The trading on the exchange was large and well distributed, and leading stocks, including low-priced properties, recorded material gains.

The dividend payment of the month was the reduction of the dividend on Reading first preferred stock, the effect of which was to continue the voting trust. The declaration of the dividend on Southern Railway preferred was postponed pending the action of the stockholders as to the extension of the voting trust. The Central of Georgia dividend on first preference incomes was reduced from 5 per cent. to 3 per cent. per annum. The Colorado Southern semiannual dividend was increased from 14 per cent. to 2 per cent. Severe monetary tension led to quite general liquidation in the stock-market in September, and the tone was weak during the greater part of the month, and on the 28th there was a demoralizing fall in prices, which was only partially checked by the announcement by the Secretary of the Treasury of plans for the relief of the monetary situation. The coal strike was a deranging element, and the market was also affected by the news of an operation upon President Roosevelt, necessitated by the injury which was inflicted at the time of the collision with a trolley-car at Pittsfield, Mass., in August. One of the most important declines was in Louisville and Nashville, which broke heavily on the announcement of the merger with the Atlantic Coast Line, owing to the fear of minority holders that they would not be included in the arrangements for the majority stock. There was quite liberal selling of American stocks in London during the greater part of the month, caused by apprehensions of large gold shipments to New York as the result of the high money rates.

The stock-market was irregular and lower in October, influenced early in the month by the activity in money, and later by bearish demonstrations. The ending on the 16th of the anthracite-coal strike, which resulted from the appointment by President Roosevelt of the coal operators, of a commission to investigate the causes of the trouble, had only a temporary influence upon the market, and the market during the first part of the month, though there were occasional rallies due to rebuying to cover short contracts. The market was heavy early in November, and on the 14th there was an unsettling fall due to disquieting rumors, which carried prices of some of the leading stocks to about the lowest of the year. This was followed in the third week by an exceptional rise in Manhattan by reports of a practical merger with the Metropolis and the Interborough companies. The market was active and generally strong to the end of the month. The announcement on Nov. 22 that the anthracite strike commission had adjourned to Dec. 3 for the purpose of affording opportunity for a compromise of the differences between the operators and the miners had a stimulating effect upon the coal stocks.

Total sales of stocks on the New York Stock Exchange during the twelve months ending Nov. 29 were 801,035,715 shares. Another feature was the taking over by the St. Louis and San Francisco of the Chicago and Eastern Illinois. Though money rates were firm the anthracite was not unfavorably affected thereby in August, nor was it influenced by the

The following shows the highest prices of a few of the leading speculative stocks in 1901, and the highest and lowest prices to Nov. 30, 1902:
The Crops.—Crop conditions were unfavorable early in the year, owing to drought in the winter-wheat States, and reports of serious damage from this cause were numerous. The general average of this grain reported on April 1 by the Bureau of Agriculture was only 78.7 per cent., against 91.7 per cent. at the corresponding date in the previous year. Midsummer heat was experienced in some sections on the 18th and the 20th, and much injury resulted. The States in which the heat was, however, not prolonged, and it was followed by rains and cooler weather, and in the succeeding month conditions were more favorable. The report of the Bureau of Agriculture showing the state of the crops on June 1 was generally satisfactory, though not so good as had been expected, the average of winter wheat being equal to that on May 1; and at the same time there was a decrease of about 5,000,000 in the acreage planted. The condition of spring wheat was, however, very high, it being 93.4 per cent. on June 1 against 92 at the same date in 1901. There were general rains during the month, and at the close these rains were excessive in some sections, causing much damage. The crop situation in July was in marked contrast with that of the year before; instead of drought and continued impairment there were abundant rains. The percentage of condition shown by the official report was 92. The increase of about 3,500,000 in the acreage was shown in corn. At the end of the month estimates were made that the yield of this cereal would be about 170,000,000 bushels. One feature in the following month was a corner in July deliveries of corn, the speculators taking advantage of the short crop of the previous year and of the small stocks in the market to advance the price. This was sharply moved upward to 85 cents in Chicago and 90 cents in New York by July 8. Attracted by these high prices, large supplies of corn were sent to Chicago from those sections where reserves were fairly abundant, and some of the cereal was reshipped from Eastern ports, where it was awaiting export to Europe. The price sharply broke, under the pressure of these unexpected offerings, to 63½ cents at Chicago, and by the close of the month it fell to 55 cents. The speculators in corn, after the above-mentioned blow, manipulated an advance in oats, forcing the price to 72 cents by the 25th, against 53 at the beginning of the month. Wheat values were not greatly affected by these corners, and the crop was in demand at Continental centers, where reserves were sufficiently large and favorable prospects at home. The condition of all grains was very satisfactory in August. The general average of corn was reported at 92 last year, and the indications then pointed to a yield of fully 2,600,000,000 bushels. In Kansas the condition was 103 against 19 in 1901, in Missouri 100 against 29, and in Nebraska 101 against 36. The harvest began under favorable conditions, and as it progressed the reports of actual yield seemed generally to confirm previous estimates. Not only was the corn-crop almost unprecedented in volume, but the yield of wheat was enormous, far exceeding the most sanguine expectations, and in some States it was the largest ever recorded. When the crops began to move freely a serious shortage of railroad transportation facilities was experienced, but this difficulty was soon remedied. As was the case in the previous year, ocean freight rates were low, chiefly because the steamers which brought coal from Europe in the fall were in active competition with the regular lines for return cargoes, thus forcing rates downward to almost unprecedentedly low figures.

Estimates in November of the probable yield of cereals indicated a crop of 2,542,516,000 bushels of corn, of 629,385,000 of wheat, of 898,522,000 of oats, of 39,920,000 of rye, and of 132,100,000 of barley.

While the grain-crops were abundant the yield of cotton was irregular, and considerable damage was caused by this in term of heat was, however, not prolonged, and it was followed by rains and cooler weather, and in the succeeding month conditions were more favorable. The report of the Bureau of Agriculture showing the state of the crops on June 1 was generally satisfactory, though not so good as had been expected, the average of winter wheat being equal to that on May 1; and at the same time there was a decrease of about 5,000,000 in the acreage planted. The condition of spring wheat was, however, very high, it being 93.4 per cent. on June 1 against 92 at the same date in 1901. There were general rains during the month, and at the close these rains were excessive in some sections, causing much damage. The crop situation in July was in marked contrast with that of the year before; instead of drought and continued impairment there were abundant rains. The percentage of condition shown by the official report was 92. The increase of about 3,500,000 in the acreage was shown in corn. At the end of the month estimates were made that the yield of this cereal would be about 170,000,000 bushels. One feature in the following month was a corner in July deliveries of corn, the speculators taking advantage of the short crop of the previous year and of the small stocks in the market to advance the price. This was sharply moved upward to 85 cents in Chicago and 90 cents in New York by July 8. Attracted by these high prices, large supplies of corn were sent to Chicago from those sections where reserves were fairly abundant, and some of the cereal was reshipped from Eastern ports, where it was awaiting export to Europe. The price sharply broke, under the pressure of these unexpected offerings, to 63½ cents at Chicago, and by the close of the month it fell to 55 cents. The speculators in corn, after the above-mentioned blow, manipulated an advance in oats, forcing the price to 72 cents by the 25th, against 53 at the beginning of the month. Wheat values were not greatly affected by these corners, and the crop was in demand at Continental centers, where reserves were sufficiently large and favorable prospects at home. The condition of all grains was very satisfactory in August. The general average of corn was reported at 92 last year, and the indications

<table>
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<th>STOCKS</th>
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<tr>
<td>Highest</td>
<td>Highest</td>
<td>Lowest</td>
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<tr>
<td>American Sugar Refining Co.</td>
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<td>Louisville and Nashville</td>
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<td>Tennessee Coal and Iron</td>
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<td>Union Pacific</td>
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<td>Western Union</td>
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rates for money in New York, especially for fixed periods, to be higher than those ruling abroad. In consequence of these conditions those of our bankers who were largely interested in railroad and other enterprises which required considerable sums of money for financing became even greater borrowers of foreign capital than they were in the previous year. These loans were negotiated through the medium of sixty- to ninety-day bankers' bills on London which were borrowed on stock or bond collateral. As these bills approached the period when they would become sight drafts they were covered with demand bills, thus repaying the loan, or the loan was extended through further borrowings for a sixty- or ninety-day period. These operations resulted in continuous offerings of long sterling, called loan bills, which were drawn either against the foreign credits of the bankers through whom they were negotiated or against capital abroad which was seeking employment. The credits and the capital so drawn against were reimbursed by the sight drafts which were procured for the purpose of the settlement of the loan or for its extension. These sight drafts were discounted at the discounting banks, or the discounting of the maturing of commercial bills of exchange made against exports hence of commodities, thus causing a steady absorption of such commercial bills at prices of which were maintained at figures quite close to those of bankers' long sterling. The almost uninterrupted demand for sight bills to remit in settlement of maturing drafts caused these drafts to rule at firm rates, and whenever the inquiry for them was in excess of the supply and they were not procurable at prices less than the gold export point this metal became the cheapest form of remittance and it was shipped abroad. There were occasions during the year, as was the case in November, 1901, when through remittances from London to Paris for settlements, the rate of exchange at Paris on the British capital fell to such low figures as to draw gold from London. Then bankers here having remittances to make of the metal were, drawing on exchange on London and shipping gold to Paris with which to procure French exchange for the reimbursement of the credit against which the drafts were sold, was caused for the movement of gold hence when the rate for exchange at New York on London was fractionally below the gold-exporting point. The import of gold in this manner was occasioned by the urgent demand in the market for money at this center, the high rates for loans on call and on time practically lowering the gold-importing point to such a figure as to make such imports profitable. After the monetary tension was relieved exchange advanced more or less sharply in response to a demand for remittance, and also because of dearer discounts abroad, a higher price in London for gold, and low rates for exchange at Paris on the British capital, and toward the end of October gold exports as an arbitration operation seemed probable.

So great were the above-mentioned borrowings by our bankers from those in Europe, not only in London, but at Continental centers through London, that it was estimated early in the current year that the merchandise balance in favor of this country had been so largely offset by the indebtedness of American borrowers to those abroad that the total amount of debt so large that it would require for its cancellation nearly, if not quite, all of the credits resulting from the exports during the current season of our commodities. Not only was our indebtedness to remain at a high level, but foreign borrowings of foreign capital, but it was augmented by subscriptions to European loans, notably the British consol loan of £5,000,000 emitted in April, quite large amounts of which were taken by prominent New York bankers; remittances for installments on this loan, as they fell due, added to the demand for exchange. Other important requirements for remittance of an unusual character were those for the shipping deal, for American industrial enterprises in London and elsewhere in England, and for importations of steel, and during October of coal from Great Britain; the expenditures of tourists in Europe incident to King Edward's coronation ceremonies were also large.

Imports of merchandise in March were $84,227,082, or greater by $8,340,248 than in the same month in 1901, and though there was a decline to $73,115,064 in June, there was an increase to $79,147,874 in July. August imports were $73,923,281, September $67,736,348, October $87,419,138, and November $85,478,705. Merchandise exports fell from $135,941,539 in December, 1901, to $69,790,077 in July. From the discounting or the maturing of commercial bills of exchange made against exports hence of commodities, thus causing a steady absorption of such commercial bills at prices of which were maintained at figures quite close to those of bankers' long sterling.

The market for foreign exchange was strong in December, 1901, and though rates declined when money on call was firm, they advanced in response to easier monetary conditions. During the early part of the month gold was exported to Europe in comparatively large amounts, $2,417,273 going forward on the 3d and $1,115,869 on the 11th. Then, however, higher rates for money caused a decline in exchange below the gold-exporting point, but with the relaxation in monetary tension exchange advanced. Rates for bankers' long sterling fell from $4.847 to $4.834, and bankers' sight bills were $4.862 on the 31st against $4.89 on the 1st; while the gold exports were in progress sight exchange was above $4.87. The market kept so close to the gold-exporting point in January, 1902, that moderate amounts of the metal were, drawing on exchange on London and shipping gold to Paris with which to procure French exchange for the reimbursement of the credit against which the drafts were sold, was caused for the movement of gold hence when the rate for exchange at New York on London was fractionally below the gold-exporting point. The import of gold in this manner was occasioned by the urgent demand in the market for money at this center, the high rates for loans on call and on time practically lowering the gold-importing point to such a figure as to make such imports profitable. After the monetary tension was relieved exchange advanced more or less sharply in response to a demand for remittance, and also because of dearer discounts abroad, a higher price in London for gold, and low rates for exchange at Paris on the British capital, and toward the end of October gold exports as an arbitration operation seemed probable.

In February the market was strong and $4.265.283 gold was exported on the 6th and $3,513,833 on the 27th. Then, however, the market made on arbitration operations, while sight exchange was no higher than $4.87; long bills ranged from $4.847 to $4.854. The market closed firm, with sight bills at $4.871; and it was strong early in March, when sight exchange was $4.88, and then moderate amounts of gold were exported; long bills were $4.854. After the 8th rates declined fractionally, and gold shipments were checked, but by the close of the month there was a recovery in sight bills to the opening figures of $4.871. In April the tone of the market was strong throughout the month, and on the 7th $3,251,689 gold was shipped to Paris. Then came a decline in rates for sight bills below the gold-export point, caused by dearer money, but later in the month there was a recovery due to a demand to remit for Louisville and Nashville stock, and also in settlement for American subscriptions to the new British loan, and the market closed firm at an amount of debt so large that it would require for its cancellation nearly, if not quite, all of the credits resulting from the exports during the current season of our commodities. Not only was our indebtedness to remain at a high level, but foreign borrowings of foreign capital, but it was augmented by subscriptions to European loans, notably the British consol loan of £5,000,000 emitted in April, quite large amounts of which were taken by prominent New York bankers; remittances for installments on this loan, as they fell due, added to the demand for exchange. Other important requirements for remittance of an unusual character were those for the shipping deal, for American industrial enterprises in London and elsewhere in England, and for importations of steel, and during October of coal from Great Britain; the expenditures of tourists in Europe incident to King Edward's coronation ceremonies were also large.

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cline in exchange, and the tone was weak during the first half of the month at a decline of 1½ cent per pound sterling for sight to $4.964. There was a partial recovery by the close, due to easier money; long bills sold during the month at $4.71 and $4.84. In June the tone was strong and rates steadily advanced, though they were not sufficiently high to justify exports of gold, and sight exchange did not rise above $4.82; sixty-day bills were $4.853. The market continued strong in July, and gold began to be shipped through arbitration operations on the 22d, $7,450,500, the largest single shipment on record, going forward by the end of the month. While the movement was in progress sight exchange ranged from $4.873 to $4.88, while long bills moved between $4.813 and $4.853. The tone was firm early in August, and $519,445 gold was shipped to Germany on the 7th. Then, however, dearer rates for money and a pressure of commercial drafts caused a decline in exchange, and by the close of the month sight bills were $4.963, or about 1½ cent per pound below those at the opening; sixty-day drafts fell from $4.854 to $4.82. In September the market was weak, influenced by dear money and the expected relief of the stringent monetary conditions, gold to the amount of $4,250,000 was engaged in Europe for import hither, and included in this sum was $2,000,000, which was procured in South Africa. At the same time about $4,000,000 was imported from Australia. The movement of gold either from Europe was checked after the early engagement by dear money and the foreign discount rates, and also by a rise in the price of gold in the London market. Sight bills declined from $4.86 to 4.854, and sixty-days drafts fell from $4.84 to 4.82; the weak tone for these bills was caused by dear money, which induced their sale, and there were also large offerings of loan drafts against stock collateral. The market was firm throughout October, influenced by a demand for remittance and also by a scarcity of bankers' bills, and though commercial drafts were freely offered, they were promptly absorbed. Toward the last week in October rates on sight bills at $4.861, and in the second week in November they advanced to $4.874. Then a concurrent fall in exchange at Paris on London to 25 francs 11 cents, took place, and gold at $4.87 as an arbitration operation; none was sent at that time, however, because of the prevailing firm tone for money, which caused a decline in sight bills to $4.84 and the tone of the market to $4.854 in response to a demand to remit for December settlements, and the tone was strong to the close.

Railroads.—Combinations of prominent railroad lines, as was the case in the previous year, made considerable progress, though some important consolidations were held in check by the litigious proceedings instituted to prevent the consummation of the Northern Securities scheme. In December, 1901, the Lake Shore acquired control of the Indiana, Illinois and Iowa road and the Norfolk and Western obtained control of the Pocahontas Coal and Coke Company, issuing thereon $30,000,000 of 4-per-cent. bonds. The gross and net earnings of the 157 roads reporting for the calendar year 1901 made the most remarkable showing of increases of $138,073,821 in gross and $64,800,530 in net income compared with the previous year, following successive increases in both items at each of the last 5 years. Early in March the Pennsylvania Railroad Company announced an issue of $50,000,000 of bonds, $24,-
000,000 of which were to provide new equipment and $20,000,000 to cover expenditures for the tunnel extension of the system into New York city. The bonds had the right of conversion into stock of the road at 140 on and after May 1, 1904. Late in March it was announced that interests identified with the St. Louis Railroad Company had acquired control of the Colorado and Southern. A short time previously these interests obtained possession of the Iowa Central, which enabled them to control the Fort Worth and Denver City. In April the Plant system of roads was acquired by the Atlantic Coast Line system and the Choctaw, Oklahoma and Gulf Railroad was bought by a syndicate of bankers in the interest of the Chicago, Rock Island and Pacific. In May the last-named company acquired the St. Louis, Kansas City and Colorado, enabling an extension to be made to an important section in the Southwest. In June the directors of the Illinois Central recommended an increase of $15,846,000 in its stock to be offered to its shareholders at par. About the middle of July there was a sharp rise in the market price of the stock of the Chicago, Rock Island and Pacific company to 206, against about 152 in January; the announcement on July 25 that the property would be reorganized and its securities rearranged. The plan provided for the absorption of the companies in the Rock Island system by a holding company, the stockholders of the Rock Island receiving for each 100 shares of their stock $10,000 in new bonds, 75 shares of new preferred and 100 shares of common stock; the majority of the stockholders of the Rock Island promptly gave their assent to the plan. At the end of July it was announced that arrangements had been perfected for the taking over by the St. Louis and San Francisco of the Chicago and Eastern Illinois, thus giving the former a terminal at Chicago. With the completion of the extension of the St. Louis, Memphis and Southeastern to Memphis, in the interest of the St. Louis and San Francisco, this would make an entirely new route between Chicago and Memphis by way of the San Francisco line. With the previous acquisition of the Kansas City, Fort Scott and Memphis and of the Kansas City, Memphis and Birmingham, the line of which this would have a line into the center of the South at Birmingham and, with other combinations, extensions to the Gulf of Mexico in one direction and to El Paso a route into the Southwest, has gross and net earning of 154 roads for the six months ending June 30 showed a gain, compared with the same time in the previous year, or $38,904,639 in gross and $7,722,900 in net revenue. The decrease of $19,000,000 in the latter, compared with the first six months of 1901, was largely due to the unfavorable weather in February and to the coal strike, which began in May. It was announced in October that the shareholders of the Atlantic Coast Line would be asked in the following month to vote upon a proposition for the increase in the capital by $15,000,000 and in the bonded debt by $35,000,000, the proceeds to be applied toward the payment for 300,000 shares of the capital stock of the Louisville and Nashville Railroad Company, which were purchased by J. P. Morgan & Co. from the parties who earlier in the year obtained control of the road through speculative manipulation, as elsewhere in 1897. Early in January the New York Stock Exchange authorized the listing of $42,310,000 additional stock of the Baltimore and Ohio Railroad Company, making the total of the
The honorary awards for 1902 are as follows:


Section of Sculpture: Medal of honor to Hippo- lyte Lefèvre for his marble group Jeunes Aveu- gles. First-class medals: Jean Baptiste Antoine Champeil, Le Printemps de la Vie (marble group); Auguste Henri Carl, Le Christ et Sainte Véronique (marble group) and Lutte de Jacob avec l’Ange (marble group); Prosper Lecourtier, científia Danneux allaitant ses Petits (bought by the state) and Face & l’Ennemi—Lion (plaster group); Michel Léonard Bégine, La Première Parure (plaster group). Second-class medals: Louis Baralis, Nafragés (group); Gabriel Zimmer- man, Appel Suprême (plaster); Alphonse Terroir, Seul dans son apaiser (bronze); Je- lien Lorieux, La Chute des Feuilles (plaster group); Raymond Suder (plaster portrait and statue); Paul Darbeuffele, Danseuse (marble) and Le Berger Jouant with es artes; Jean Riapal, Nymphe de Diane (marble); Constant Roux, L’Automne and L’Hiver (bas-reliefs for Chamber of Deputies). Third-class medals: Charles Paillet, Alpinisme Muscat, Raphael Charles Peyre, Charles Louis Malric, Georges Colin, Carl Johan Edh, Philippe Perrotte, Jean Cézau-Bru, Léon Ernest Drivier, Arthur George Walker.

Paris: Section of the Artists Français. The officers of the Société des Artistes Français for the year were: Honorary Presidents, Léon Bonnat, Édouard Detaille, Jean Paul Laurens; President, William Bouguereau; Vice-Presidents, A. Bar- tholdi, Louis Scellier de Gisors; Secretaries, A. de Richemont, G. Lemaire, J. L. Pascal, A. Mongin; Corresponding Secretary, Albert Maignan; Sec- retary-Treasurer, E. A. Boisseau.

The annual exhibition comprised 4,268 num- bers, classified as follows: Paintings, 1,680; car- toons, water-colors, pastels, miniatures, enamels, porcelains etc., 596; engrav- ing on medals and precious stones, 93; deco- rative art, 463; architecture, 278; engraving and lithography, 464.
Louis Jean Muller, The Squire's Song (etching after Dandy Salier). Second-class medals: Émile Ferdinand Crosbie, Portrait d'une Princesse Bonaparte (wood, after Ingres); Arthur Jules Mayeur, L'Amateur de Peinture (burlin, after Meissonier); Léon Salies, L'Abreuvoir (etching, after Detaillle); Louis Huvey, Les Bébés (original lithograph); Jules Lenerdu, Portrait de Vieillard (lithograph). Third-class medals: Marius Bernard Labat, Victor Mathieu, Rose Maireau, Edmond Jules Pennequin, Théodore Auguste Truchême, Georges Fouquet-Dorval, Georges Garen, Pierre Frédéric Barré, Louis Trinquéer.

Among the noteworthy exhibits was Jean Léon Gérôme's La Rentrée des Félins dans le Cirque, representing the return to their dens, after a human feast in the amphitheater, of the lions and tigers. A few spectators still linger in the seats above, though most of the ranges are empty. In the arena are scattered human corpses, and attendants armed with whips driving the gorilla with its beasts into their den, the mouth of which opens in the background. In the foreground one maned lion seems disposed to dispute the keeper, who has his whip raised in the attitude of strict authority.

Edmond Detaillle's two contributions, large decorative canvases for the Hotel de Ville, Paris, represent, the one Les Enrôlements Volontaires sur le Chemin de fer du Pont-Neuf, en Septembre, 1792, and the other Reception, par la Municipalité de Paris, des Troupes retenue de Pologne—1806-07.

Edmond Richter's Salambô represents the sister of Hannibal standing before a mirror, with Taanach kneeling with clasped hands beside her, a scene from the famous romance of Gustave Flaubert.

Alphonse Lalauze's Marengo—14 June, 1800, represents the cavalry of the Consular Guard, under Gen. Bessières, charging impetuously the Austrian dragoons. Bessières, in the foreground, with saber uplifted and shouting, is leading the grenadiers upon the enemy, seen at left. Châporté à Tarse, the principal contribution of Edmond Lalire, is a scene from Plutarch, where the author describes the arrival of the Egyptian queen at Tarsus, on the Cydnus, in her magnificent galley with silken sails and silver oars, surrounded by her women clad as Nereids and Graces.

Pandre, by Charles Amable Lenoir, represents the mischief-maker at full length in flowing robes, standing the fatal box in her hand. This picture belongs in New York.

Maurice Henri Orange's Boulogne—1804 represents Napoleon, mounted, talking with another mounted officer and looking out upon the arm of the sea that separates him from "perdite Albion." Behind the two are other mounted men, soldiers, artisans, etc., and a long row of vessels ready to be launched for the conquest of England.

Gustave Wertheimer's Le Rival represents a desert country with a stream winding through it. On the bank, in the foreground, are a lion and two lionsesses looking across the water, on the other side of which is another lion, the rival, looking jealously across at the favored one.

Le Colonel Roosevelt à Cuba: Prise des Hau- teurs de San Juan is the long title of a picture by Ernest Jean Delahaye, which tells its own story. The future President is standing calmly on the heights, gazing at the paintings, 557 in sharpshooters, pointing with his right arm at the entrencheds of the enemy. He is almost isolated, being nearer the Spanish line than are his men to him.

Bouquets's chief exhibit, Les Oreades, illustrates a passage from F. Humbert. The shadows are dissipating and Aurora tints the mountain tops the troop of joyous wood-nymphs who have spent the night on earth return in long procession to the ethereal regions where dwell the gods. A confused mass of nude and wingless Oreads are passing upward out of the shadows of a wood, while fauna and satyrs, gathered in the foreground, gaze in astonishment at the spectacle.

Louis Beroud's Le Martyr de Saint-Antoine represents the good saint, bearded and in monastic robes, with a cross in his hand, pulled biter and thither on a flowery hillside by a laughing bevy of shameless nude nymphs, who appear to enjoy the martyrdom more than the martyr does.

American exhibitions in the Salon of 1902 were: Inez Abernethy (Arkansas), George C. Aid (St. Louis), Carroll Beckwith (New York), Henry S. Blishing (Philadelphia), Lu Blackstone-Freeman (New York), Frank M. Boggs (New York), Benjamin J. Bowen (Boston), Theodore A. Brewer (Cincinnati), Frederick Arthur Bridgman (Tuskegee), Edwin D. Connell (New York), Cacharme Critcher (Virginia), M. E. Dickens (St. Louis), William Dodge (Virginia), Gaines Ruger Donoho (Mississippi), Mattie Dubé, Edward Dunfer (Buffalo), Frederick M. Du Mond (Rochester), Ferdinand Earle (New York), David Ericson, Mary Franklin, Edward Fulde, Della Garretson (Ohio), Sidney Gorham, Frank Russell Green (Chicago), Mary Shepard Greene (New York), Peter Alfred Gross (Allentown, Pa.), Mary Gullity (North, Conn.), Eliza Voorhees Haigh (New York), Howard Morton Harts hole (New York), Nina Rose Hartwell, Herman Hartwich (New York), Elizabeth Case Harwood, Chester C. Hayes, Laura Healy (Chicago), Louis C. Herreshoff (Providence), Felix Hidalgo (Manila), George Hitchcock (Providence), William S. Horton, Henry S. Hubbell, Margaret Kemiston (Boston), Anna Elizabeth Klumpke (San Francisco), Daniel Ridgway Knight (Philadelphia), Elia Koenig (Philadelphia), Elizabeth Krusman Van Elten (New York), Charles Lawson (Pennsylvania), Ossip L. Linde (Chicago), William Cushing Loring (Massachusetts), Walter McEwen (Chicago), Frederick Macmonnies (New York), Ruth Moore (New York), Gustave Henri Mosler, Mme. Willy Betty Newman (Nashville), Adeline Oppenheim (New York), Mabel Packard, Jules Pagès (San Francisco), Lawton Parker, Charles Sprague Pearce (Boston), Mary May (Boston), William Sherman Potts, Isabel Ross (Buffalo), Albert H. Seymour, Freeman W. Simmons (Cleveland), Henry O. Tanner, David A. Tanzy (Cincinnati), S. Seymour Thomas, Mme. Harry Ellen K. B. Thompson (New York), Lionel Walden, Bertha Mary Waters (Connecticut), Susan Watkins (California), Edwin Weeks (New York), Coggeshall Wilson (New York).

Paris: Salon of the Société Nationale. The officers of the Sociétte Nationale des Beaux-Arts for the year are: President, Carolus-Duran; Vice-Presidents—Section of Painting, Alfred Philippe Roll; Section of Sculpture, Auguste Rodin; Section of Engraving, Charles Albert Wainting, President of Section of Objects of Art, Mme. Charlotte Besnard, Secretaries, René Biliothe, Jean Béraud, Treasurer, G. Dubufe.

The thirteenth annual exhibition, opened April 20, comprised 2,443 numbers, of which 1,203 were paintings, 425 drawings, 39 engravings, 235 sculptures, 224 art objects, and 89 architecture.

The president of the society, Carolus- Dura-
had but one exhibit, entitled En Famille, a picture containing 15 or 16 human figures and a hound. The happy father in this At Home stands at the right, smiling and looking toward the mother, a matronly woman seated at the left with her children gathered around her.

Roll, the Vice-President, exhibited 6 canvases, of which 4 were in the memory of Balzac, whose fame, he is said, is now fully established, after a hundred years' perspective, as that of one of the foremost figures in literature.

José Frappa contributed 5 portraits, among them a full-length of Cardinal Gibbons, of Baltimore, in his episcopal robes, holding a book in his left hand.

Jean Webber had a half-dozen exhibits, among them two, entitled respectively La Machine and Le Monstre, which prove him to be the possessor of a very fervid Gallic imagination. The first represents a nude woman seated astride of what may be intended to be the boiler of the machine, from which apparently proceeds the power that turns an immense wheel, whose revolutions grind to death many dimunitive human beings. The second picture, The Monster, represents a nude woman asleep on a bank, with wild men and animals gazing on her from a little distance with great manifestations of astonishment.

Auguste Hagborg's Daecaleirienne represents a Swedish lady, seen at three-quarters length, leaning on a table, on which are scissors, a work-basket, and sewing materials, and bending forward to look out of a small window.


Paris: Miscellaneous.—The Humbert collection, which attracted more attention, perhaps, than any other, caused an account of the connection of the name with the most gigantic swindle of modern times, was sold in Paris, June 20 and 21, and produced a total of 1,167,000 francs. Some of the best prizes obtained were: Paul Baudry, L'Amour et Psyche, 25,000 francs, and La Fortune et L'Amour, 26,000; Boudin, L'Avant-port, 16,200; Jules Breton, Le Journal des Moissonneuses, 25,200; Corot, Le Pêcheur, 49,000, and La Ferté-sous-Jouronne, 26,100; Daubigny, Les Laveuses, 50,500; Eugène Fromentin, Le Passage du Gué, 30,000; Isabey, La Bénédiction, 47,000, and Le Marchand d'Étoffes, 23,000; Charles Jacque, L'Abreuvoir, 34,000; Gustave Moreau, Le ROI David, 51,000, and St. Sebastian, 39,500; J. F. Millet, La Porte de Barbizon, 26,500; Roybet, La Main Chaude, 36,100, and Les Comédiani au Château, 34,500; Van Marcke, Rentrée à la Ferme, 36,500. Angelo Asti's portrait of Mme. Humbert herself brought only 450 francs, and that of M. Humbert by the same artist, only 145 francs.

A statue of Balzac was unveiled in Paris, Nov. 22, in the presence of many persons prominent in the literary and artistic world. Balzac, standing in the background, is in striking con-
The Victors of Paardeberg, by James P. Beadle, is one of a few pictures dealing with the Boer War. It illustrates the first noteworthy triumph of the British arms, on the anniversary of Gen. Cronje's surrender of his Boer forces at Paardeberg, in the spring of 1900. The trench dug during the night by the Canadians and a company of royal engineers has rendered unto the Boers' position, and they have succumbed to the inevitable. They are seen at the left straggling forward, unarmed, and many carrying their portable possessions, while the victors in front, emerging from their trench, are greeting them, some shooting with caps in air, some standing in silence.

A portrait of Major-General Baden-Powell, a bust picture in khaki and slouched hat, is the sole contribution of George F. Watts. A full-length of Lord Milner, standing, with a bust of the King in the background, by P. Tennyson Cole, represents another figure prominent in South African affairs.

A Tanagrean Pastoral, by George H. Boughton, aims to revitalize some of the beautiful figurines exhumed in the neighborhood of Tanagra, whose figures have been known for their beauty, anterior to the Christian era. At the left Pan presides over a fountain, at the base of which are three musicians crowned with bay and playing on pipe, lyre, and tambourine. At the right, in the foreground, several dancers, in swirling draperies, keep measure to the music on the grass, against a background of poplars and of purple hills.

Mr. Sargent was represented by 8 life-size portraits and groups. One of the latter, The Ladies Alexandra, Mary, and Theo Acheson, Daughters of Lord Gosford, an essay in the grand style, has been compared, though not very justly, with Sir Joshua Reynolds's Three Irish Graces, in the National Gallery. It is a picture full of grace and sentiment, but the grace is of the present and not of the eighteenth century. The most masterly portrait of the exhibition was Mr. Sargent's Lord Ribblesdale's standing, in a long riding-coat and top hat, against a fluted marble pillar. La Belle Dame sans Merci, by Frank Dicksee, represents the lady of the "wild sad eyes" who holds the knight of the dreamer of Keats's poem. The mailed knight has dismounted and placed her on his charger, beside which he walks, blind to all else but her faerie song as she looks down on him unpityingly as they move onward through a blossoming country to her "elfin grove."

Opposite it hung the Aphrodite of Brion Riviere, which illustrates the potency of love, a canvas suggested by lines in the Homeric hymn telling how the laughing-goddess, gloriously clad, hastened down many-ribbed Ida, attended by the gray wolf, the bear, the lion, and the pard, each under her potent spell.

London: New Gallery. The winter exhibition was devoted to royal portraits, a collection, says one of its critics, that does not give a very high ideal of the artistic patronage of English royalty. One of the best entries was the portrait of Richard II from Wilton House, a diptych representing the monarch in company with St. John the Baptist. A pure tempera painting on a patterned gold ground was credited to the finest technicians of Italy, Fra Angelico, or the Siennese. It is probably of French origin. There is also a portrait of Richard III and one of Henry VII, but Henry VIII secured the services of Holbein that royalty was worthily depicted. Among other exhibits were the portrait of Queen Mary, by Lucas de Heere, many of Elizabeth, mostly attributed to Zuccherio, and a number of Stuart portraits attributed to Van Dyck.

The fifteenth summer exhibition contained only 400 numbers, a far cry from the 480 of last year. If this diminution meant a higher standard there would be cause for congratulation, but it seems to indicate rather that the New Gallery has reached a critical point in its career, for ever since the death of Sir Edward Burne-Jones its exhibitions have decreased both in number and importance. Among the best of the exhibits were:

Love steering the Boat of Humanity, by G. F. Watts, which, like many of that painter's works, is an allegory. On relentless waters, under a stormy sky, lies the boat, in the hands which is Humanity, apparently in the teeth of a strong wind, the sail having collapsed. The picture is a marvel for a man of Mr. Watts's years, but it will scarcely rank as one of his great works.

Of Mr. Sargent's three contributions, The Children of Asher Wertheimer is a decorative triumph. It contains three figures, two girls on a draped couch with a time long anterior to the Christian era. At the left Pan presides over a fountain, at the base of which are three musicians crowned with bay and playing on pipe, lyre, and tambourine. At the right, in the foreground, several dancers, in swirling draperies, keep measure to the music on the grass, against a background of poplars and of purple hills.

Places of honor were given to three recent works, by C. E. Hallé: In Infancy, the Mother's Care, shows a child on the daisied bank of a river giving to the kneeling mother a daffodil; In Manhood, the Help and Playmate, a young man and a girl, lovers probably, are beneath an apple-tree; and In Old Age, the Daughter's Song, the patriarch, with gray locks and swolled cheeks, is solaced by his daughter, who sings to the accompaniment of a harp.

London: Picture Sales. While the art-sale season of 1895 was not a very remarkable one, a few pictures brought good prices. The number of paintings which have reached a limit of 1,400 guineas during the past eight years is as follows: 1894, 20; 1895, 45; 1896, 32; 1897, 22; 1898, 15; 1899, 30; 1900, 23; 1901, 21. Taking this as a standard, the sales of the present year have been small, for only 10 have reached the limit of 1,400 guineas, as is shown in the following table:

<table>
<thead>
<tr>
<th>Artist</th>
<th>Title</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. Romney</td>
<td>Portrait of Miss Rodbard</td>
<td>10,000</td>
</tr>
<tr>
<td>G. H. Hobbema</td>
<td>Peasants shaking Hands</td>
<td>9,000</td>
</tr>
<tr>
<td>J. Hoppner</td>
<td>Portrait of Lady Mary Arundel</td>
<td>7,000</td>
</tr>
<tr>
<td>C. Trench</td>
<td>Cattle and Sheep</td>
<td>7,000</td>
</tr>
<tr>
<td>Sir H. Raeburn</td>
<td>Sons of D. M. Binning</td>
<td>6,500</td>
</tr>
<tr>
<td>T. Gainsborough</td>
<td>Portrait of his Daughters</td>
<td>5,500</td>
</tr>
<tr>
<td>Rembrandt</td>
<td>Portrait of Old Woman</td>
<td>4,500</td>
</tr>
<tr>
<td>G. Romney</td>
<td>Portrait of Lady Morshead</td>
<td>4,100</td>
</tr>
<tr>
<td>F. Hale</td>
<td>Portrait of Gentleman</td>
<td>3,700</td>
</tr>
<tr>
<td>Sir H. Raeburn</td>
<td>George and Maria Stewart</td>
<td>2,600</td>
</tr>
<tr>
<td>S. Toledo</td>
<td>The Grape Seller</td>
<td>2,500</td>
</tr>
<tr>
<td>Sir H. Raeburn</td>
<td>John Campbell when a Child</td>
<td>2,300</td>
</tr>
<tr>
<td>J. van der Heyden</td>
<td>View of a Dutch Chateau</td>
<td>2,200</td>
</tr>
<tr>
<td>Sir T. Lawrence</td>
<td>Charles Binney and Two Daughters</td>
<td>1,500</td>
</tr>
<tr>
<td>J. Hoppner</td>
<td>Portrait of a Lady</td>
<td>1,400</td>
</tr>
<tr>
<td>Botricchi</td>
<td>Madonna and Child</td>
<td>1,600</td>
</tr>
<tr>
<td>Portrait of Edward VI</td>
<td></td>
<td>1,000</td>
</tr>
<tr>
<td>O. Lambton</td>
<td>Portrait of Miss Ward</td>
<td>1,500</td>
</tr>
<tr>
<td>J. Reynolds</td>
<td>Maria, Countess of Waldegrave</td>
<td>1,500</td>
</tr>
</tbody>
</table>

The Gainsborough, the sixth in the above list, a portrait of the artist's own daughters, Mrs. Lane and Miss Gainsborough, was once in the collection of J. W. Brett, and was bought from him in 1864 for £117. In 1887 it was sold
from the collection of Henry Wilkinson for £221. The name of the purchaser, who in 1902
had sold it to J.T. White, was discovered and the best
landscape by an American artist under forty
years of age, was awarded to H. Bolton Jones,
for his picture Early Spring. The Julia A. Shaw
memorial prize ($300), founded by Samuel T.
Shaw in place of the fund instituted by him in
1992, for the best figure composition painted in
oil by an American woman, was awarded to Miss
Mary F. Macmonnie, for her Blossom Time in
Normandy. The Carnegie prize ($500), founded
by Andrew Carnegie for the most meritorious
oil-painting in the exhibition by an American
artist, was awarded to J. Frances Murphy, for his
October Fog.

The exhibition consisted of 318 numbers, of
which 206 were paintings. Among the exhibit-
ors were J. McNeill Whistler, L'Andaloussienne;
William M. Chase, Portrait of Louis Windmü-
ler; Cecilia Beaux, Portrait; John W. Alexander,
A Mother; Winslow Homer, Northeaster; Ken-
yon Cox, Portrait; Thomas Eakins, Cypriote
Martinielli; Augustus S. Gautens, Medallion
Portraits; and Rhoda Holmes Nicholls, My
Daughter.

New York: Metropolitan Museum.—The
annual rearrangement of collections in May
was attended with the usual loan exhibitions,
the most important of which was the collection
of George W. Vanderbilt, consisting of most of
the foreign pictures acquired by the late Will-
hall H. Vanderbilt. Among these are some of the
best works of the modern French school, includ-
ing Monet, L'Impression, Soleil Levant; Degas,
Dupré, Díaz, Cabanel, Fromentin, Gérôme, Bon-
nat, and others. Among the gifts to the museum
is the famous Holy Family by Rubens, portions
of which are attributed to his celebrated pupil Van
Dyck, presented by James Henry Smith, and a
portrait of the artist Valentine, bequeathed by
C. V. Sideli. The Rubens was bought at the
Matthiessen sale for $50,000.

On Dec. 22 was formally opened the new wing
of the museum, which includes the splendid
façade on Fifth Avenue, the work of the late
Richard M. Hunt. A monument of the har-
bor at low tide. The Norman W. Dodge prize
($300) for the best picture painted by a woman
was not awarded, and is said to have been dis-
cavored.

Among the most noteworthy pictures in
the exhibition were Irving R. Wiles' portrait of
Julia Marlowe, representing the actress seated
on a sofa looking straight out of the canvas, and
J. W. Alexander's The Piano, an interior with a
young matron seated at the instrument and in
the background the husband with his head rest-
ing upon his hand, a picture with a story-tell-
ing quality which appeals to every one. Other
pictures deserving of mention are J. G. Brown's
An Old Vermont, W. C. Fitter's Meadows in
June, Bruce Crane's November Morn, Charles
Schreyvogel's Going for Reenforcements, Henry
Moulder's Sans Souci, F. A. Bridgman's The Se-
closed Wood, Charles C. Curran's A Mountain
Vista, Edward Gay's Black Creek, Will H. Low's
The Elsian Lawn, Gustave H. Moulder's Fidelity,
Dwight F. Boyd's Moonrise — Holland, and
Carleton Wiggins' Crossing the Moors.

F. Francis, Madonna and Child

New York: National Academy of Design.—
The officers-elect for the year are: President,
Frederick Dielman; Vice-President, J. G. Brown;
Corresponding Secretary, Harry W. Watrous;
Recording Secretary, Will H. Low; Treasurer,
Lockwood De Forest. The Council consists of
Francis C. Jones, Irving R. Wiles, A. C. Howland,
George H. Yewell, Herbert Adams, and R. Swain
Gifford.

The following new academicians and associa-
tes were chosen: Academicians: Edwin A. Abbey,
Cecilia Beaux, Henry O. Walker, and Thomas
Eakins. Associates: Birge Harrison, Wilton Lockwood,
George Grey Barnard, Joseph De Camp, Charles Niehaus,
Elliott Daingerfield, Henry B. Snell, Albert Ryder,
and William Gedney Bunce. This brings the list
of academicians up to 100 and of associates to 91.

The seventy-seventh annual exhibition (Jan.
3—March 21) was held, in like fine examples of last year, in
the galleries of the Fine Arts Society. The an-
nual prizes awarded were: The Thomas B. Clarke
prize of $300, for the best American figure com-
position, to Elliott Daingerfield, for his Story
of the Madonna; the first Julii Hallgarten prize
($300) to E. Irving Couse's Indian picture The
Pipe Pece; the second Hallgarten prize ($200)
to Louis Loeb, for his picture The Mother; and
the third Hallgarten prize ($100) to Will Howe
Fotte, for The Blue Vase. The Inness gold
medal was awarded to Walter Clarke, for his
Garden in November; a silver medal to Richard
Hunnewell of the harbor at low tide. The Norman W. Dodge prize
($300) for the best picture painted by a woman
was not awarded, and is said to have been dis-
cavored.

The Board of Control for the year consists of:
President, John La Farge; Vice-President, Ken-
yon Cox; Secretary, Bruce Crane; Treasurer,
Walter Camp; and Asst. Treasurer, J. Frances
Jones. The society consists of 112 members.

The twenty-fourth annual exhibition was held
in the Fine Arts Society Building from March 28

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$200. Other fair prices were realized, as for Millet's Landscape, $6,250; Manet's Sortie du Port de Boulogne, $7,000; The sale of the collection of oil-paintings, water-colors, bronzes, etc., of the Paris firm of Boussod, Valadon & Co., who have discontinued their branch shop in New York, occupied the last three evenings in February. The amount realized on the first evening was $36,542, on the second $76,475, and on the third $156,093, or a total of about $269,000. The picture that brought the highest price was Regnault's well-known Automedon and the Horses of Achilles, which was sold for $12,500. This large work (10.4 high by 10.9), painted in Rome in 1867, was bought by L. P. Morton, of New York, and sold in 1882 to S. A. Cosle, Jr., of St. Louis, for $5,500. Two years later it was placed on exhibition in the Boston Museum of Fine Arts, where it was supposed it would remain permanently. The only other picture that sold for more than $10,000 was Corot's La Ferle, which brought $11,500. Another Corot, Twilight, brought $7,100. A Rousseau, La Rivière, brought $6,500, and a daumier, Shepherd and Flock, $8,100. Diaz's Sand's Road sold for $7,900, and Dupré's Frog Pool for $6,850. Sir Joshua Reynolds's Portrait of Sacchini brought only $150.

The sale of the F. O. Matthiessen collection, on April 1 and 2, realized $348,780, of which $112,505 was obtained for 81 pictures, and the remainder for 162 pictures at auction. The highest price was obtained for Rubens's The Holy Family, which was bought in by George P. Blow for $50,000. The picture that brought the next highest price was Jules Breton's Harvesting the Poppies, which sold for $36,500. Other good prices were: Landscape and Cattle, Troyon, $16,500; Portrait of an Old Man, Rembrandt, $16,000; Portrait of Antonio Grimani, Doge of Venice, Titian, $13,500; Mary Magdalene at Prayer, Murillo, $13,200; Arabs Crossing a Stream, Schreyer, $15,000; The Awakening of Love, Diaz, $10,000; Young Moris, $7,200; Normandy Horse, Rosa Bonheur, $7,200; The Philosopher, Meissonier, $8,300; Summer, Daubigny, $6,600; Avenue of Trees, Corot, $6,500; Summer, Fontainebleau Forest, Diaz, $4,500; and Officer ordering an Advance, Davelle, $7,100.

The Blakeslee collection of early English, Dutch, and Flemish masters, sold on the evenings of April 10 and 11, 163 paintings in all, realized $166,940, of which $85,220 was obtained at the first sale for 82 pictures. The highest price received was for Sir Thomas Lawrence's famous portrait of Mrs. Siddons, which sold for $17,000. Van Dyck's Portrait of the Duke of Portland, a full-length, life-size canvas, brought $16,000. Constable's Opening the Lock was sold for $13,000. Other good prices obtained were: Les Deux Sœurs, Bouguereau, $4,400; Allant au Pâturage, Corot, $3,500; The Butcher Boy, Knaus, $8,500; Portrait of Fanny Kemble, Sir Thomas Lawrence. $2,850; and Nell Gwynne, Sir Peter Lely, $2,000.

Philadelphia: Pennsylvania Academy of Fine Arts. The annual exhibition, which opened with the usual reception on Jan. 18, was the most notable art show held in Philadelphia in the past five years, even exceeding the 1887 centennial exhibition, which included many of the prize pictures from the Buffalo Exposition, comprised 745 numbers, of which 439 were paintings in oil, 60 pieces of sculpture, and 312 water-colors, black and whites, etc., including 96 etchings by Coutin. The place of honor was given to George De Forest Brush's portrait group of Mrs. Goodwin and her Sister. To the right of it was Edwin A. Abbey's Penance of Eleanor, Duchess of Gloucester, from the Carnegie Institute, Pittsburgh, and to the left a fine landscape, with twilight effect, by Charles H. Davis. Dugnan-Bouveret's large figure piece Consolatrix Afflictorum was loaned by Henry C. Frick. An attractive figure study, entitled Une Parisienne, was contributed by Albert Lynch, the Parisian artist, his first appearance here as an exhibitor. Among notable portraits were Whistler's L'Andalousienne, Sargent's G. M. Williamson, Eastman Johnson's John D. Rockefeller, Cecilia Beaux's Mrs. Phelps Stokes, Alexander's Newbold Morris, and Anna E. Klumpke's Rosa Bonheur. Milton Lockwood contributed five portraits and Horace Walker five pastoral scenes. Winslow Homer was represented by an interesting study of Wild Geese, and Edward Sabin's study of a fine marine, The High Sea. The sculpture exhibition was confined principally to portraits, but St. Gaudens was represented by his Stevenson memorial bronze, Karl Haer's boy, entitled Pastoral, and Herman A. MacNeill by an Indian group, The Sun Vow.

The honors and prizes connected with the exhibition were awarded as follows: Walter Scott prize of $300, to Walter McEwen, for his picture An Ancestor; Temple gold medal, Winslow Homer, for his picture Northstead; Mary Smith prize of $100, to Ednor Earle, for her picture entitled Fire Light.

Miscellaneous.—Memorial Day was observed in New York by the dedication in the Riverside Park, at the foot of Eighty-ninth Street, of the Soldiers' and Sailors' Memorial Monument, one of the most beautiful structures of the city. Before the unveiling of the monument there was an imposing parade by Government troops, sailors from the battleships, regiments of the National Guard, Grand Army posts, and other organizations, reviewed by Acting-Gov. Nixon, Mayor Low, Gen. Knaus, Gen. Horace Porter, and Gen. O. O. Howard. The oration was delivered by Gen. Howard. The battle-shie Alabama took part in the celebration by firing salutes. The monument, a circular Corinthian temple whose design suggests the Choragic Monument of Agrippa at Athens, but which is much larger and is embellished with symbolic ornaments belonging to its national character, is of pure white marble on a circular basement surrounded by terraces and approached by grand staircases on each side.

The unveiling of the Rochambeau statue, in Washington, on May 24, was an event of almost international importance, and was marked by the presence of a large special French embassy, including the present Count and Countess de Rochambeau, descendants of the marshals of other, Gen. Brugère, commander-in-chief of the French army, the Count de Lafayette, the Marquis de Chambrun, great-grandson of Lafayette, and other prominent representatives of the French Government. The occasion was made notable also by a military parade, a speech by Ambassador Horace Porter, and a song by Stearns Podge. The statue, the work of Ferdinand Harrier of Paris, stands in the southwest corner of Lafayette Square, a short distance from the White House. Rochambeau, in bronze, in a niche of his rank, stands on an ornate pedestal, with a scroll in the left hand and pointing with the
right to some object in the distance. At the base of the pedestal is Victory bearing an unfurled flag in her left hand and a naked sword in the other, with an eagle at her feet.

Indiana has just dedicated at Indianapolis an enormous monument to her dead soldiers and sailors. The shaft, including a bronze figure of Victory, is 284 feet high, and has a balcony 228 feet above ground, to which ascent is made by elevator. The design is by Bruno Schmitz, of Berlin.

A Holy Family, attributed to Palma Vecchio, has been discovered in a very dirty and dilapidated condition by Prof. Cantalamessa, the director of the gallery of the Venice Academy, and now, in its restored condition, occupies a place in one of the principal rooms of the Academy. The picture is a Sacra Conversazione, representing the Virgin seated holding the Child, who looks toward St. Joseph, seated at the right. At the left is St. Catherine pointing with her right hand to St. John, kneeling on one knee. The picture is a remarkable one, exceedingly beautiful in color and composition, and challenges comparison with some of the finest easel pictures produced in Venice during the later Renaissance. It is considered to Palm Vecchio on the internal evidence, and is placed by Prof. Cantalamessa among the very latest of his pictures.

A memorial to Lord Leighton, late president of the Royal Academy, was unveiled on Feb. 10, in St. Paul's Cathedral, London, by his successor, Sir E. Poynter. The monument, the work of Thomas Brock, R. A., consists of a recumbent figure of the artist upon a pedestal on which are inscriptions on bronze tablets. At the head and feet respectively are bronze figures symbolical of painting and sculpture.

A portrait of John Bunyan, painted in 1685 by Thomas Sadler, has been added to the National Portrait Gallery, London. Its authenticity is said to be established by an unimpeachable record. It is interesting to note, in this connection, that a copy of the first edition of The Pilgrim's Progress was lately sold at Sotheby's for £1,475.

An irreparable loss to Venice and a distinct loss to the world is the fall of the Campanile of St. Mark's, which collapsed and sank into a ruined mass on July 14. Even if the building be reconstructed on the ancient site, it will be only a shadow of the original, and the interest of art lovers as did the original.

The age to which Titian lived is the subject of an article in the Nineteenth Century by H. F. Cooper. He accepts the inquiry being made of him that Titian was not born until 1489-90, twelve years later than the date usually assigned for his birth, that he was only eighty-eight years old instead of ninety-nine at the time of his death. The only source of the idea that he was born in 1477 is a begging letter written by him to Philip II of Spain in 1571, in which he says he is ninety-five years old. The explanation is that this was an exaggeration to heighten the appeal to the royal pity.

One of the best works of Perugino, a triptych, has lately been found concealed behind an indifferent canvas of the seventeenth century in the Church of Santa Maria Assunta, in the village of Castelnovo di Porto, Italy. The principal figure, that of the Saviour, with the right hand raised in the act of blessing and the left holding the book of the Gospels, a work of extraordinary beauty, is by the hand of Perugino himself. The central figures, St. Peter, St. Jovi, and a fourth unknown saint, painted on the shutters, are the work of one of his pupils, probably of Berto di Giovanni. The triptych was executed in 1501 as a commission from the four brothers Degli Eeffi, a distinguished local family. The tradition concerning this picture had never died out, but its whereabouts was unknown previous to this discovery.

Sir Thomas Lawrence's portrait of John Philpot Curran, which Williams, in his Life of Lawrence, calls "the most extraordinary likeness of the most extraordinary face within the memory of man," has been presented by Lord Iveagh to the National Gallery of Ireland. It was in the Royal Academy in 1890, and was bought for 850 guineas at the sale of the Peel heirlooms in 1900.

A recent "find" in Egypt seems to throw new light on The Dance of Death in art, hitherto regarded as a peculiarity of the Renaissance period. A richly painted earthen drinking-cup exhumed near Alexandria is ornamented with seven dancing and grinning skeletons, each of whom is whirling with drunken joviality a bacchic thyrsus. The figures seem to be saying to the drinkers who used the cup: "Eat, drink, and be merry, for to-morrow you will be one of us." This, the true Alexandrian philosophy of life, is of great interest from the point of art. The cup has been added to the Louvre.

**FLORIDA.** (See under United States.)

**FRANCE.** A republic in western Europe, proclaimed Sept. 4, 1870, after the surrender of the Emperor Napoleon III to the Germans at Sedan. The legislative power is vested in the Senate and the Chamber of Deputies, the executive power in the President of the republic and the Council of Ministers. The Chamber of Deputies is elected for four years, one member for each arrondissement when the population is below, and two members when it is above 100,000. Any Frenchman of the age of twenty-one years or over, not a soldier in active service, is entitled to vote, if a resident of his district for six months, and any Frenchman who has fulfilled his military duty may come a candidate for either House unless he holds an office under the state. The ministers are responsible severally and collectively to the Chamber, and either residing or absent, and they can be defeated on a Cabinet question. When a Cabinet resigns the President of the republic selects a new Prime Minister who is able to command a majority, and the latter, in consultation with the President, selects his colleagues. The President of the republic for the term ending Feb. 18, 1906, is Emile Loubet, born Dec. 31, 1838, who was elected to succeed Felix Faure in 1899. The ministry, constituted on June 22, 1899, was composed in the beginning of 1902 as follows: President of the Council and Minister of the Interior and of Public Worship, M. Waldeck-Rousseau; Minister of Finance, M. Caillaux; Minister of Justice, M. Monis; Minister of Foreign Affairs, M. Delcassé; Minister of War, Gen. Andrè; Minister of Marine, M. de Lannan; Minister of Public Instruction, Georges Leygues; Minister of Public Works, Pierre Baudin; Minister of Agriculture, Jean Dupuy; Minister of Commerce, Industry, Posts, and Telegraphs, M. St. Mirand; Minister of the Colonies, Albert Decrais.

**Area and Population.** The area and the population of the 87 departments of France at the
The French soldiers in China and French sailors abroad being added to the population present in France raises the total to 38,641,335, which shows an increase of 412,364 since 1896. Although the death-rate is generally low in France, the increase in population is slower than in neighboring countries. This is because of the exceedingly low birth-rate. The number of births per marriage declined in ten years from 3 in 1881 to 2.1 in 1901, and has not since increased.

The legal population of France in 1891 was 38,961,945, compared with 38,517,332 in 1896. The increase was 441,613, compared with 757,027; in the previous five years. The number of foreigners residing in France in 1901 was 1,037,778, compared with 1,027,491 in 1896. The number of marriages in 1900 was 299,084; of births, 827,297; of deaths, 853,285; excess of deaths, 25,998. It was the fifth year in which there was an excess of deaths, births having declined and deaths increased since the previous year, with births diminished by 31,934. The number of divorces in 1900 was 17,157, making a total of 94,426 since divorce was made legal in 1884. The annual rate of increase in the population of France has declined in seventy-five years from 0.1 per thousand to less than 0.1, although the death-rate has been lowered from 25.3 to 21.1 per thousand.

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### Table: Population of France by Departments

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Total: 38,641,335
900 francs; from the bourse tax, 6,809,000 francs; from the personality income tax, 79,493,000 francs; from customs, 470,266,000 francs, 25,000,000 francs having been added by the new duty on grain; from indirect taxes, 612,000,000 francs; from sugar, 7,085,000 francs; from tobacco, 414,958,000 francs; from matches and gunpowder, 44,066,000 francs; from post and telegraphs, 269,438,000 francs; from railroads and mint, 18,108,000 francs; from domains and forests, 25,212,000 francs; from various sources, 56,784,000 francs; recettes d'ordre, 71,499,550 francs; revenue of Algeria, 1,946,990 francs; raised on short bonds, 40,000,000 francs. The increase in estimated expenditure was caused by the payment of 18,000,000 francs additional interest to guaranteed railroads and an addition of 2,575,722 francs to the army budget, offset by reductions in various departments, so that the net increase in the estimated was 7,342,993 francs. The capital of the French national debt on Jan. 1, 1901, amounted to 30,906,632,022 francs, consisting of 22,001,446,642 francs of 3- and 3% per-cent rentes, 3,811,918,500 francs of 3 per-cent rentes repayable by annuities, 179,435,768 francs of the Morgan annuity, 6,670,843 francs of 4% rentes for roads and school-buildings, 515,020,000 francs of short-date treasury bonds, 184,900,215 francs of miscellaneous debt, and the floating debt of 1,145,666,600 francs. The budget for 1902 gives the sum to be paid on the perpetual debt as 675,045,039 francs; interest and amortization of redeemable debt, 24,747,177 francs; total interest and amortization of floating debt, 243,395,310 francs; total debt charge, 1,243,425,746 francs. To meet the cost of the China expedition and pay indemnities to French victims of the Boxer outbreak the Government, in December, 1901, raised 255,000,000 francs on 3% per-cent bonds.

The revenues of the departments in 1897 amounted to 285,879,082 francs, and expenditures to 288,703,080 francs; the ordinary revenues of communities for 1900 to 794,120,672 francs, and expenditures to 761,184,105 francs; the debts of the ordinary revenue and expenditure of the city of Paris for 1891 to 348,338,216 francs, 166,000,000 francs being obtained from octrois and 113,000,000 francs of the indemnity of the debt, which amounted to 238,395,120 francs.

The Army.—All young men who are not exempt are liable to serve in the active army for two years at the age of twenty, but after one year with the colors those who have learned their duties and are able to read and write may go on unlimited leave of absence. The peace strength of the army in 1902, including soldiers on furlough, was 510,305, including 26,272 officers, in France; 38,879, including 2,335 officers, in Algeria; and 20,168, including 745 officers, in Tunis; total, 569,444 men, of whom 29,482 were officers, with 142,847 horses. There were 4,421 in France, of whom 3,719 were officers, on the general staff; 385, of whom 291 were officers, in Algeria; and 15,9, of whom 90 were officers, in Tunis. In military schools there were 3,673, of whom 391 were officers. Unclassed among the troops were 1,985, of whom 1,728, of whom 141 were officers, in France; 682, of whom 55 were officers, in Algeria; and 152, of whom 117 were officers, in Tunis. The army corps comprised 316,047 infantry, including 12,149 officers, in France; 12,697 cavalry, including 1,015 officers, in Algeria; 14,428 infantry, including 377 officers, in Tunis; 10,027 administrative troops in France, 3,337 in Algeria, and 616 in Tunis; 50,988 cavalry, including 3,461 officers, in France; 7,677 cavalry, including 367 officers, in Algeria; and 1,649 cavalry, including 80 officers, in Tunisia; 49,497 artillery, including 3,725 officers in France; 2,529, including 61 officers, in Algeria; 1,710 artillery, including 50 officers, in Tunisia; 11,083 engineers, including 504 officers, in France; 1,072 engineers, including 22 officers, in Algeria; 435 engineers, including 8 officers, in Tunisia; 7,499 train, including 360 officers, in France; 2,101 train, including 39 officers, in Algeria; 10,510 train, including 33 officers, in Tunis. The strength of the army corps was 475,621 men, of whom 20,199 were officers, in France; 55,064, of whom 1,504 were officers, in Algeria; and 19,740, of whom 534 were officers, in Tunisia; total, 553,237 men, of whom 22,237 were officers. The total strength of the active army was 504,706 men, of whom 29,130 were officers; 437,710, including 29,064 officers, in France; 58,979, including 2,335 officers, in Algeria; and 20,017, including 741 officers, in Tunisia. The gendarmerie in France numbered 21,602 men, of whom 625 were officers; and 143, of whom 4 were officers, in Tunisia; total, 21,745, of whom 629 were officers, the Algerian gendarmerie being provided for in the Algerian budget. The Garde Républicaine numbered 2,903, of whom 146 were officers, and the effective strength of the active army, deducting sick and absent, was 620,280; that of the gendarmerie and Garde Républicaine was 24,487. The total number of men between twenty and thirty-three years of age who are liable for service in the active army and its reserve is estimated at 2,950,000; the number between the ages of thirty-three and thirty-nine who are in the territorial army is about 900,000; and in the territorial army reserve, composed of those between thirty-nine and forty-five years of age, 1,100,000 are enrolled, making a total war strength of 4,350,000 men, of whom about 2,500,000 are counted upon as efficient.

The Navy.—The French navy, including vessels not yet ready for service, consisted in the beginning of 1902 of 5 first-class, 7 second-class, and 13 third-class battle-ships, 17 armored cruisers, 18 coast-defense ironclads, 1 old battle-ship, 40 protected cruisers, 15 protected cruisers, 15 destroyers, 40 first-class and 122 smaller torpedo-boats, and 14 submarine boats. There were in process of construction 2 first-class battle-ships, 15 destroyers, 8 first-class and 10 smaller torpedo-boats, and 20 submarine boats. Nearly every vessel on the list is efficient, as it is the practice to classify all that become obsolete and are not worth rebuilding and fitting out with modern equipment. In 1900 the Chambers voted for the construction of 6 battle-ships of an aggregate displacement of 148,650 tons, 5 armored cruisers of 12,000 tons each, 28 destroyers of 350 tons each, and a number, not determined, of submarine torpedo-boats. Submarine boats have been made the special feature of the French navy, both the type which navigates freely below water and the subservible boat which steams on the surface except when it dives for an attack. In 1902 the Chambers voted to begin the building of 1 battle-ship and 2 ironclad cruisers, and 3 battle-ships in 1903. The Patrie, begun in 1901, will be ready in 1903. The République was laid down in 1900 and the Cuirassé Le Lion Gambetta and Jules Ferry were begun in 1900 and the Victor Hugo in 1901. The navy estimates for 1902 also provided for the construction of 13 submarines of 1,015 officers. In the newest development of the French battle-ships, exemplified in the République and Patrie, the gun emplacements and all parts below them are fully protected. This type was adopted in the
Suffren, of 12,052 tons, launched in 1809, which has 134-inch armed armor over the vital parts, a speed of 18 knots with engines of 15,500 horse-power, and an armament of 4 12-inch guns coupled in barbette turrets fore and aft and a quick-firing battery, placed high, of 8 6.4-inch, 8 4.5-inch, and 34 small guns. The Jena, launched in 1898, is identical in design and armament, but the quick-firing battery is unprotected underneath, as is the case with the Charlemagne, Saint Louis, and Gaulois, of 11,097 tons, launched in 1895 and 1896. In the Charles Martel, Jaureguiberry, Car- not, Maseena, and Bouvet, built between 1893 and 1896, there are 2 12-inch and 2 10.8-inch guns placed singly in lozenge disposition, while 8 5.5inch quick-firing guns are mounted in small turrets and they have from 20 to 34 smaller quick-firers. The Broumas, launched in 1891, of 11,215 tons, has 3 13.4-inch guns in fore and aft turrets, and a heavy quick-firing battery of 10 6.5-inch and 81 smaller guns well protected amidships. The Boivines, Valmy, Jemmapes, and Trohounat, third-class battle-ships of about 6,500 tons, carry 12-inch guns singly in barbette turrets and have 4-inch and smaller quick-firers amidships without protective armor. The type of French battle- ship, of which the Mareuax and Magenta, of 10,890 tons, are the latest examples, has a high freeboard, a complete belt of armor at the waterline, and 4 large 13-inch guns disposed in a lozenge ar- rangement, with a very strong quick-firing armament. These two vessels, launched in 1887 and 1890, carry 4 13.4-inch guns in their barbette, and the quick-firing batteries consisting of 17 5.5-inch and 25 smaller guns in the Mareuax and 16 5.5-inch and 34 others in the Magenta. The Ré- pubblique and Patrie, having a displacement of 15,- 000 tons, are designed to steam 144 knots, and their armament will consist of 4 12-inch breech-loaders and 18 6.4-inch and numerous smaller quick-firing guns. The French armored cruisers are long and narrow, with 7.6-inch guns mounted singly in turrets so as to obtain a free command and quick adjustment, with less regard to protection. The Montcalm, launched in 1899, and Duc de Magenta and Coët-Carmel, launched in 1900, of 5,517 tons, and the Gloire and Conde, launched in 1901, of 10,000 tons, and the newer Sully carry besides the 7.6-inch guns 6 6.4-inch, 4 4-inch, and 24 6.4-inch quick-firing guns. The Meteor, of 10,014 tons, has 6 4-inch quick-firers. The Desaix, Kléber, and Dupleix, of 7,700 tons, are armed with quick-firers only, 10 6.4-inch and 16 small ones. The Léon Gambetta, launched in 1900, has a 13-inch deck protection only, a displacement of 5,500 tons, and an armament of 8 6.4-inch and 12 1.8-inch quick-firers. The latest type of armored cruiser, represented by the Léon Gambetta, Jules Ferry, and Victor Hugo, of 12,416 tons, have 4 7.6-inch quick-firing couples in turrets, with better protection for their bases, and a secondary armament of 10 6.4-inch quick-firers. These vessels, with engines of 24,000 horse-power, are intended to make 21 knots—the speed of the 10,000-ton and 9,517ton cruisers, with engines of 20,000 horse-power. The Jurien de la Gravière, with engines of 17,000 horse-power, has a nominal speed of 23 knots, and have the Guichen, of 8,277 tons, and the Cha- teauroux, of 8,016 tons, launched in 1897 and 1898, with engines of 24,000 horse-power and 23,000 horse-power, carrying 2 6.4-inch, 6 5.5-inch, and 10 small quick-firing guns; and also the armored cruiser Jeanne d'Arc, launched in 1899, which, with engines of 8 6.4-inch and 2 7.6-inch guns in turrets and a quick-firing armament of 12 5.5-inch and 26 small guns.

The French navy is under the direction of the Minister of Marine, but since 1898 naval matters proper, the technical and military responsibilities pertaining to construction, maintenance, commissioning, mobilization, and every preparation for war, are confided to the chief of staff, an officer of the highest rank, Vice-Admiral Bienaimé in 1902. The navy is manned partly by conscription and partly by voluntary enlistment. The entire seafaring population between the ages of eighteen and fifty have been since the time of Colbert registered in the Inscriptio Maritime, and such serve in the navy instead of the army. Since 1872 it has been open to a limited number of conscripts called for service in the active army to choose the naval service instead, if they are fit for its duties. Of about 114,000 men in the Inscriptio Maritime, 25,500 are in active service in the navy, and the rest form a reserve which would provide a surplus of 50,000 men or more over the number required to man the whole fleet in case of mobilization. The personnel of the navy in 1901 consisted of 15 vice-admirals, 20 rear-admirals, 125 captains, 215 commandants, 754 lieutenants, 502 ensigns, 146 aspirants of the first and 78 of the second class, 1,420 mechanics, engineers, carpenters, gunners, blacksmiths, model instructors, etc., 50,496 petty officers and seamen, and in the reserve 15 vice-admirals, 15 rear-admirals, 202 other officers, 345 commissaries, surgeons, and other superior employees, and 5,473 petty officers and seamen; total effective, 59,835 officers and men.

Commerce and Production.—The yield of wheat in 1900 was 114,710,880 hectoliters, from 6,864,070 hectares; of barley, 14,394,320 hectoliters, from 757,193 hectares; of oats, 88,900,920 hectoliters, from 5,941,420 hectares; of rye, 20,689,000 hectoliters, from 1,418,780 hectares; of buckwheat, 8,163,827 hectoliters, from 692,531 hectares; of corn, 7,834,600 hectoliters, from 541,191 hectares; of mixed grain, 5,212,150 hectoliters, from 520,560 hectares; of potatoes, 122,541,290 hectoliters, from 1,500,898 hectares; of sugar-beets, 85,881,510 quintals, from 320,817 hectares; of beets, 110,288,100 quintals, from 492,013 hectares; of colza, 433,507 quintals, from 38,727 hectares; of flax, 88,988 quintals of fiber and 194,155 quintals of seed, from 21,260 hectares; of hemp, 185,125 quintals, from 26,730 hectares; of wine, 85,314,900 hectoliters, from 5,000 hectares; of olives, 227,508 quintals, from 17,673 hectares; of clover, 35,010,275 quintals, from 1,022,422 hectares; of hay and grass, 150,743,450 quintals, from 5,506,525 hectares. The trade in 1900, however, has increased, and the yield of wine is 1,733,345hectoliters, producing 57,994,000 hectoliters of wine. The exportation of wine was 1,554,690,000 hectoliters, and the importation 3,149,000 hectoliters. The production of cider in 1901 was 12,734,000 hectoliters. The crops of walnuts, chestnuts, olives, cider-apples, prunes, and mulberry-leaves in 1900 was valued at 229,475,309 francs; the orange and lemon crops, at 1,092,435 francs. The numbers of domestic animals in France on Dec. 31, 1900, were 2,903,003 horses, 203,002 mules, 356,239 asses, 14,620,832 cattle, 20,172,561 sheep, 6,740,455 hogs, and 1,537,325 goats. The production of alcohol in 1900 was 2,050,208 hectoliters. The silk-growing industry, which is encouraged by premiums from the Gov- ernment, amounting for the year to 5,569,187 francs, employed 136,214 persons in 1900, who raised 9,180,404 kilograms of cocoons, from which 4,098,680 kilograms of raw silk, valued at 135,525,251 francs, were obtained, with 209,618,260 francs, valued at 1,167,357 francs, being ex- ported. The number of mines in operation in 1899 was 529, employing 150,504 persons. The product
of minerals was 39,884,702 tons, valued at 460,366,671 francs. The production of coal and lignite was 32,982,712 tons; of iron ore, 4,985,705 tons; of potash, 3,573,579 tons; of manufactured iron, 534,000 tons; of steel, 1,240,000 tons; of steel rails, 1,237,700 tons; of gold, 270 kilogrammes; of silver, 210,105 kilogrammes; of lead, 15,981 tons; of zinc, 39,274 tons; of copper, 1,115,523 tons; of building-stone, slate, cement, phosphates, and other quarry products, the value of 243,425,956 francs. There were 354 sugar factories in 1901, employing 19,497 persons regularly and 8,370 occasionally. The production in 1901 was 1,040,294 tons of refined sugar. The value of codfish landed in 1899 was 15,073,368 francs; of the catch of the entire fishery, 31,113,464 francs. The catch of herring in 1900 was 376,316 quintals; of coel, 639,010 quintals; exports of dried codfish, 223,714 quintals. The Government gave 5,538,920 francs in premiums for the catch and exportation of fish.

The foreign commerce of France has been gradually increasing for several years. The total value of the special commerce was 7,882,000,000 francs in 1899, 8,507,000,000 francs in 1900, and 8,880,000,000 francs in 1901. The increase in imports in this period has been 245,000,000 francs; in exports, 786,000,000 francs. The total value of the general imports in 1900 was 5,989,800,000 francs, and of the general exports 5,521,800,000 francs; that of the special imports was 4,256,000,000 francs, and of the special exports 4,108,700,000 francs. In 1901 the special imports amounted to 4,714,500,000 francs and the special exports to 4,166,200,000 francs. The imports of food substances in 1901 were 902,000,000 francs; the imports of raw materials were 3,124,000,000 francs, and the exports 1,091,000,000 francs; the imports of manufactured goods were 2,789,000,000 francs, and the exports 1,897,000,000 francs. The total value of the goods imported in 1900 was 2,977,000,000 francs, and the exports 2,098,000,000 francs.

The value of merchandise imports and exports that passed through Marseilles in the general commerce of 1900 was 2,072,000,000 francs; while Havre had a trade of 1,978,000,000 francs; Paris, 876,000,000 francs; Dunkirk, 773,000,000 francs; Bordeaux, 672,000,000 francs; Bouloune, 430,000,000 francs; Dieppe, 371,000,000 francs; Toulon, 293,000,000 francs; Calais, 247,000,000 francs; Belfort, 221,000,000 francs; Leuumont, 219,000,000 francs; Toulon, 204,000,000 francs.

**Railroads, Posts, and Telegraphs.**—The railroads in 1900 had a total length of 23,760 miles, exclusive of 2,970 miles of local railroads. The Government owned 1,700 miles and has the revenue of the main lines operated by the 6 guaranteed companies. The guarantees of 4 of these expire in 1914, and those of the others in 1934 and 1935. The cost of construction of 23,453 miles completed in 1899 was 16,214,000,000 francs. The gross earnings in 1899 were 14,213,750 francs, and in 1900 they were 15,925,500 francs. The length of street-railroads on Jan. 1, 1901, was 2,319 miles.

The number of letters that passed through the post-office in France and Algeria in 1899 was 946,801,000 in the internal and 167,199,000 in international and transit traffic; registered letters 48,518,000 international and 2,808,000 international and transit; postal cards, 55,149,000 international and 7,545,000 international and transit; newspapers, 48,000,000,000; circles, 1,218,893,000 international and 183,213,000 international; receipts in 1899 were 236,843,270 francs in France and 4,988,426 francs in Algeria.

The length of telegraph-lines on Jan. 1, 1900, was 90,170 miles, with 330,100 miles of wire. The number of despatches in 1899 was 48,144,151, of which 30,071,518 were internal, 5,378,182 international, 1,122,180 in transit, and 1,571,271 official. There were 959 telephone systems in 1899, with 10,410 miles of line and 150,510 miles of wire. The number of conversations in 1899 was 164,912,542, and on long-distance lines, having a length of 15,384 miles, with 44,034 miles of wire, the number was 4,774,824 in 1899 and 5,633,543 in 1900.

**Last Session before Elections.**—The ministry that triumphed over the Nationalist sedition in 1899, obliterated the Dreyfus scandal, suppressed political intrigues in the army, and restored confidence in the republic, was strong.
enough to carry through the Chambers important measures, such as the new succession duties, the revised spirit duties, the bill establishing a colonial army, and, as the logical chastisement for the reactionary parties, the associations bill, The army and navy, the colonial empire, and the international position of France waxed under the care of the democratic ministry in a way to rebuke and humiliate Cesarism. The defenses of the French coasts, the gradual transformation of the navy, the development of submarine torpedo-boats, the construction of the naval port of Brest, the fortification of Diego Suarez, the occupation of new territories in the Sahara and central Africa, were accompanied by a more energetic defense of French interests in the East and elsewhere. The Russian alliance was not weakened, while a rapprochement with Italy removed a source of weakness and danger. When the Chamber met in January, 1902, the Government proved to working men the value to them of ministers like M. Millarand and M. Baudin, which the Guesdist Socialists denied, by adopting the bill of M. Basby, the representative of the miners, fixing eight hours as the maximum day's work in French mines. To enable the companies to double the number of pits, broaden the galleries, and increase the output from other pits, nine hours will be a day for two years, then for two years eight hours and a half, and after that eight hours. A bill decreeing that workmen and workwomen, working in public service, including employees in shops, restaurants, and hotels, shall not be employed more than six complete days in the week, but must have one whole day or two half-days of rest, passed by only 10 Deputies. A Socialistic motion to amnesty strikers was carried on March 21, in spite of the opposition of the Government, by 368 votes to 62. The Guesdist Socialists and some anarchist agitators led a demonstration of the unemployed at the Labor Exchange and a conflict with the police on March 3. Even the Parliamentary Socialists who have defended M. Millarand considered it inexpedient for a Socialist again to enter a French Cabinet for some time. A new law on shipping bounties is intended to induce ship owners to purchase vessels abroad for the extra expenses entailed by the restrictions placed upon them by the French shipping laws, though its opponents described it as an attempt to give to M. Lemoine a year in premiums to British ship-builders. Its purpose is to enable the steam-mercante marine of France to keep pace with that of other countries. The act of 1881 allows half the navigation premium to vessels of foreign construction sailing under the French flag. The act of 1893 restricted bounties to French-built vessels. The present act grants an outfit indemnity equivalent to less than a third of the navigation premium to foreign-built steamers registered in France. The navigation bounties for French-built vessels are at the same time increased, except for large sailing vessels, which were so favored by the act of 1893 that they have been built in excess. Notwithstanding the protection given by the law of 1893, French owners have continued to buy over two-thirds of the new steam tonnage abroad. A part of the increased bounty is reserved as a superannuation and accident insurance fund for mariners and the remainder is the bounty remains 65 francs per ton and 15 francs per every 100 kilograms of engines and boilers. The French builder of a steam-vessel receives also 70 per cent. of the navigation bounty. French vessels in colonial waters may hereafter have foreign crews under French officers, it has been found that the law requiring three-quarters of all French crews to be Frenchmen was detrimental to the coasting-trade under the French flag in tropical seas. The act of 1893, under which bounties will continue to be paid out until 1913, will have cost the taxpayers 221,000,000 francs. The cost of the new statute, which was passed for ten years, with payment of bounties for twelve years longer, is limited to 200,000,000 francs. The Chamber sanctioned by a practically unanimous vote a vast project of canalization that has been long studied, involving the expenditure of 605,000,000 francs, of which 443,500,000 francs will be spent on new canals, 80,000,000 francs on widening and deepening existing canals, and 122,000,000 francs on improving Dunkirk, Havre, Nantes, St.-Nazaire, Bordeaux, and other harbors. Of the new canals, one to connect the Pas de Calais with Lorraine, giving a cheaper and more certain supply of coal and of iron ore to a great manufacturing district, will cost 130,000,000 francs. The projected northern canal will cost 80,000,000 francs. A canal from the Loire to the lower Rhone, estimated to cost 123,000,000 francs, will link the extensive canal system of which Paris is the center with the port of Marseilles. The Rhone cost 91,500,000 francs, and in connection with this the navigable channel of the Rhone will be improved, and also the Cete Canal. For works of minor importance and local value the districts interested are expected to pay half the cost; for works of national importance the local contribution will be less; for military works by only 10 Deputies. The national treasury. The question of shortening the term of military service was not decided. Under the present law about 50,000 of the annual recruits serve only one year, after which they are called out for four or two weeks annually; 15,000 serve two years; and 160,000 are compelled to serve three years. Young men of the wealthier classes, on the ground that they are needed for the support of their families or have a certain amount of instruction, are released, while the poor have to serve for the full term. The Government proposed to make period of obligatory service two years for all if a sufficient number of suitable men can be induced to remain with the colors voluntarily from one to five years longer than the present term, or to volunteer to those who would enlist for the additional terms not only higher pay, but future employment in certain Government and communal offices and in societies receiving aid to be reserved for soldiers who have served three years in the national or the colonial army. Sons who support widowed mothers or younger children would also have to serve two years, during which the Government would provide for the support of the bereft families. The Government favored this plan and was desirous of suppressing all exemptions and inequalities, but until the preliminary measures were taken to increase the efficiency of the military organization when the short term is introduced. As the matter could not be brought to a conclusion before the dissolution of the Chamber, the Deputies, by 552 votes to 2, declared their adhesion to the principle of two years' service to be effected by the suppression of all exemptions and by recruitments, with compensation for famines in their normal support. Military service has weighed very heavily in France because the annual number of available conscripts has declined since 1871 from 225,000 to 225,000, half the num-
ber there are now in Germany, where they have increased in that time 120,000 and reductions are made in the annual drawings, whereas in France there are not enough to fill the battalions. The bill proposed to enroll in the army all those who, physically incapable of marching and fighting, could perform administrative or clerical duties or assist at a charitable institution or the commissariat. For students postpone ment of service would be allowed. There are 6,000 men employed as orderlies and as shoemakers, tailors, etc., who would be incorporated in the army. At present 58 per cent. of the infantry and a part of the cavalry really serve only ten months. The available effective is reduced by exemptions and dispensations by a third. The abolition of these is expected to yield 489,000 conscrits serving two years. The reduction of the limit of stature and the reen listment of more non-commissioned officers and of 7,000 privates, with the addition of the Algerian contingent, would supply the deficiency of 30,000 men that the change from three to two years would entail, so that the army would be kept up to its required strength of 539,000 men.

The cost of the change in bounties for reenlistment and relief to families deprived of breadwinners during the four years is estimated at 70,000,000 francs a year. The total strain on the people would be greater, but it would be equal, and the classes now called upon to pay the main part of the blood tax would be relieved of a part of their burden. The military training of the army as a whole would be improved, since the three years' system does not secure two years' training for a great part of the troops. The system proposed gives the most intelligent classes. The duration of military service under the bill is two years in the active army, eleven years in its reserve, six years in the territorial army, and six years in its reserve, making twenty-five years altogether.

The final session of the Chamber elected in 1886 ended on March 30. The Senate refused to make the duration of the next Chamber six instead of four years, postponing the question foriper consideration in the new Parliament. The Government supported the measure, on the ground that the Senate, as is usual in France, is less of a chamber of reaction than of deliberation and less popular. The bill was rejected, amid the acclamations of the multitude. The Progressives, led by M. Méline and M. Ribot, would purge the republic of Socialists and Socialist Radicals, hoping to reconcile the Conservatives to a republican Government ruled by moderation and respect for property. The Radical Republicans, the aggressive and dominant section of the Ministry, are the men who since Gambetta led them have carried out the principal reforms that have marked French legislation for twenty years, and who of late have had a majority in the Senate as well as in the Chamber. The Socialist Radicals would proceed more precipitately in social legislation than the Radicals. The Parliamentary Socialists, represented by M. Millerand and M. Viviani in the Chamber, adhere theoretically to Collectivist ideals, but will cooperate with other parties in effecting social reforms and labor legislation. The old parliamentary Socialists, led by Jules Guesde, repudiate alliances with capitalistic parties. The Revolutionary Socialists, like the anarchists, generally refrain from voting and political activity and would sweep away the existing Government by revolution and terrorism. The Nationalists, who had already won the municipality of Paris from the Socialists, made a great struggle to gain the constituencies in the capital, and with a profuse use of money opposed Ministerialist candidates in all parts of France. The women of the aristocracy, angered by the anti-Suffrage law, took a public part in electioneering, as women in France had never done before. There were about 2,500 candidates, an average of more than 4 for every seat, in Paris. The Duke of Orleans instructed the remaining adherents of the Bourbon monarchy to set up Royalist candidates where they had a chance of success, and where not to vote for any other anti-Republic candidate, or, if there were none likely to win, to vote with any party opposed to the Government. In many departments the clergy did actively intervene in the elections, helping M. Morny and M. Rousseau when the elections were past a threat
to punish all who had abused their ecclesiastical functions.

The elections took place on April 27. The Nationalists, for all their violent campaign, gained but a few seats in Paris and polled only two-fifths of the total vote of the metropolis, whereas Gen. Bouillé in Angers received three-quarters of the Parisian suffrages. Out of 412 elected on the first ballot 88 were Ministerial Republicans, 95 Radicals, 41 Socialist Radicals, and 22 Socialists, making 246 supporters of the Government, against 32 Nationalists, 60 Conservatives, 66 Anti-Ministerial Republicans, and 2 Anti-Ministerial Socialists, a total of 106 Opposition Deputies.

Second ballots were necessary for 179 seats. The Government made a net gain of 11 seats in the elections decided in the first ballot. Of 8,885,000 votes polled out of 12,180,000 on the register, 8,188,000 were cast for the Government. Of 3,382,000 Anti-Ministerial votes, Guesdist Socialists cast 144,000, Progressive Republicans 1,183,000, Nationalists 1,180,000, and Reactionaries 2,433,000. Of the Ministerialist voters, 717,000 were Socialists, 715,000 Radical Socialists, 1,754,000 Radicals, and 2,029,000 Ministerial Republican.

Although the Progressists in many places combined with Radicals and Socialists to harass Ministerialists, the second ballots on May 11 were as favorable to the Government as the first. The new Chamber consisted of 111 Ministerial Republicans, 128 Radicals, 84 Socialists, 53 Socialists, 6 Guesdist Socialists, 113 Progressist Republicans, 43 Nationalists, and 41 Conservatives. This gave the ministry a majority of over 100 against its opponents. In accordance with the Republican a majority of 400 against the foes of the existing republic. The Socialists, having been 57 in the Chamber of 1888, were losers, though not to such an extent as the Conservatives, and the Progressists lost 35 seats, while the Radicals increased from 104 in the last Chamber and the Socialist Radicals from 74. Of the Conservatives elected only 10 were Legitimists, the rest Bonapartists. There were 20 Anti-Semites and 8 Plebeians.

Change of Ministry.—The ministry formed on June 22, 1894, for the defence of the republic and the reestablishment of order, having achieved its task, deserted it at the outset by stanch Republicans of the stamp of M. Ribot and M. Saincaré, and was dissolved on May 28 announced its resignation. The new Chamber met on June 1 and elected Léon Bourgeois provisional president over Paul Deschanel. After the credentials of members were confirmed, M. Bourgeois was definitely elected president. M. Loubet was at this time in St. Petersburg, returning the visit made by the Czar in September, 1901. The Emperor Nicholas invited the President of the French Republic to visit him so as to note the proofs of the warm and sincere sentiments uniting Russia and friendly and allied France. In asking a credit of 500,000 francs for the presidential journey the Government, in consequence of the recent Franco-Russian note, instead of speaking of a fresh consolidation of the alliance according to the old formula, described the visit as a demonstration of the growing strength of the bonds uniting France and Russia for the development of their prosperity and the maintenance of peace in the world. M. Loubet, on his return to France, received a letter in which M. Waldeck-Rousseau offered the resignation of the Cabinet. The President sent for Hervé, and after a private conference with this declined, commissioned M. Combes to form a ministry. Whether a progressive income tax should be placed before exclusive state education, two years' service, superannuation allowances to workmen, or judicial whether scrutins de liste should be reintroduced, were questions that divided Radicals who were asked to join the Cabinet, which was finally constituted on June 5 as follows: Prime Minister, Minister of the Interior, and Minister of Public Worship, M. Combes; Minister of Justice, M. Valé; Minister of Foreign Affairs, M. Delcassé; Minister of Finance, Maurice Rouvier; Minister of War, Gen. Andrè; Minister of Marine, Camille Pelletan; Minister of Education, M. Chaumigé; Minister of Commerce, M. Trouillot; Minister of Public Works, M. Maréjouls; Minister of Agriculture, M. Mogeot; Minister of the Colonies, M. Doumergue; Minister of Posts and Telegraphs, M. Bérand. The selection of M. Combes, reporter of the associations bill in the Senate and Minister of Education in the Bourgeois Cabinet of 1895, to be the head of the new Radical ministry indicated a purpose to apply that law with vigor. The first legislative proposal in the ministerial program was the abrogation of the Falloux education law of 1850, which placed an equal footing secular education given by Church institutions and the public schools in the budget of the state. Rigid economy and an intelligible and sincere budget were the financial principles set forth, and the extraction of the Government from graver financial difficulties. Fifteen years before was recalled to prove that similar efforts would restore the balance between normal receipts and expenditures. A general income tax, which by taxing wealth according to its powers would introduce greater equity and a fuller democratic spirit into the fiscal system, was given a foremost place in the promised legislation, and next the reduction of military service to two years without compromising the solidarity of the army, a consummation to be effected by the bill already before the Senate. The disciplinary corps and penal establishments of the army were to be brought into harmony with the principles of modern justice, as the proceedings before military tribunals already had been. The tax on the reply to 1894 was to be studied and a beginning made in their acquisition and management by the Government, as was again the Chamber. The liberal and the moderate Cabinet had left, was to be pushed forward. All details of the administration would be governed by secular liberty and Republican principles, and the associations law would be enforced in its letter and its spirit. The Chamber, after hearing the ministerial declaration, passed by 329 votes to 124 an ordre of the day expressing confidence in the Government and its purpose to apply a vigorous policy of unsectarianism, of fiscal reform, and of social solidarity. The deficit for the year was estimated at 170,000,000 francs. The Progressist Jules Roche proposed to debar private Deputies from proposing any measure entailing expenditure of money, as is the English constitutional practice. M. Rouvier carried a bill for the conversion of 34 per-cent. French rentes into 3 per cents, affecting nearly one-third of the funded debt and saving the treasury 32,000,000 francs a year, the period during which the conversion would be carried out having expired. The holders of the old and the new 3 per cents, amounting to 21,450,000,000 francs, are guaranteed against any further conversion for a term of years. An order for 5 per cents, which exchange their bonds receive 1 per cent. bonus in the shape of new bonds of 101
per cent. of the face value of the old ones or in cash. The conversion was expected by the hold- ers since the price of 100 francs has re-
ceded from nearly 100 almost down to par, and the
impending operation depressed the price of the
perpetual 3 per cents. The bonus represents an
interest of 24 per cent. for the first four years.
After 1910 a conversion of French rentes into 24-
or 24.5 per-cent. stock at par may be possible, but
at present these rates are not sufficiently accli-
matized in France. The conversion bill contains
a clause allowing treasury bonds to reach a
limit of 500,000,000 francs, 100,000,000 francs
above the existing legal maximum. The session
ended on July 12.

Enforcement of the Associations Law.—
Before the close of the session M. Combes first
ordered 135 Roman Catholic schools closed, some
of them conducted by 130 newly constituted re-
ligious associations which un soundly contended
that the associations law did not require new
schools or societies to apply for authorization,
others by members of unauthorized communities
who claimed exemption as salaried teachers em-
ployed by lay school proprietors. Since the asso-
ciations law of July 1, 1901, went into force
August 14, 1901, it had applied for authorization.
Authorization has been re-
quired by law since 1823, but before the new act
was passed many establishments were found
neglecting to conform to the law. The Pre-
cerer's a speech defending the forcible closing of
schools and declaring that the first act would be
followed by others, since Republican France had
elected a President, and a National Assembly and
titling the victory of lay society over monastic
doctrine, was by 309 votes to 218 ordered to be
placarded throughout the country. There were 3000
schools, mostly for girls and conducted
by nuns, which still defied the law. Three days
before the close of the session a decree was issued
directing them to close on a week's notice,
otherwise they would be closed by the police.
If they obeyed they could apply for authoriza-
tion, and be reopened as new establishments.

Asylums and hospitals were left undisturbed
until accomodation could be found for their
inmates. M. Combes denounced in the
Chamber as a proscriber, and Deputies of the
Right threatened the President and nearly
came to blows with friends of the Government. After
the adjournment of the session, 450 religious commu-
nities applied for authorization. On July 16 noti-
ces were served on 76 schools in Paris, and
some of the schools in the provinces received
their warning. The schools were those of the
unauthorized religious communities, taught by
the same teachers and occupying the same build-

The Government, however,
was resolved to treat the pretext that these
latter schools were opened by the teachers
who had opened new schools, when they were in all
respects the same conventual schools as before,
as a quibble not worthy of consideration. The
Council of State decided on Jan. 23, 1902, that
the law did apply to the conventual schools,
old and new. There were two months in which
the schools could be either converted into secu-
lar schools or closed. The government, in virtue of
authorized orders before the compulsory educa-
tion law would require the parents to send their
children to school; but they could not be legal-
ized in the same manner as the Catholic legisla-
ture, which would not meet before Oct. 15, and in case these
schools were not reopened before the new school
year there would not be room for so many children
in the public schools. The new law, however,
would endure penalties rather than let their
children attend the secular schools. After secu-
lar education was enacted in 1882 and monastic
teachers were excluded from the common schools,
Catholics throughout the country contributed
and sent their children to the schools founded
by the monastic orders in which religious in-
struction was continued. There were 100,000
children in these Church schools in Paris; in the
provinces they were more numerously attended.
Thousands of teachers were trained in the con-
vents. To provide education for the pupils of
these schools would add greatly to the public
expenses. The bishops declared that they would
defend the liberty of Christian families to deter-
mine how their children should be educated, and
nearly all of them sent protests against the de-
crees, although they had had constant difficul-
ties with these teaching orders in exercising their
right of control over the educational decision. The circular of M. Combes came as a surprise because it was now
too late for the orders to apply for authorization.
The law gave them only three months, which ex-
pired on Oct. 1, 1902. The Government re-
creed an extension till Jan. 15, 1902, and when
he said that elementary schools came under the
education law of 1886 it was assumed or argued
by some of the Catholics that his language ex-
empted the Church schools. It was contended,
moreover, that since he threatened to close them
after a final summons his successor was bound
to allow an opportunity to be heard in opposition.
The Progressives and Moderate Republicans con-
demned the policy of suppressing the sisters'
schools, and Protestants as well as Clericals
and Reactionaries called it an attack on liberty
and a manifestation of hatred and intolerance.
Even Radicals, like ex-Premi er Goblet, deplored
violence in combating clericalism, though others
called for the total suppression of the recalcitrant
orders or advocated the denunciation of the con-
cordat. When the police began to carry out the
decree, first in the departments of the Seine and
the Rhône, the Clericals staged demonstrations.
In Paris the Nationalists sought conflicts with the police, and some of the
agitators were arrested. In provincial towns
and villages, and in the provinces where this
policy produced real hardship and profoundly exasper-
ated the people, serious conflicts occurred, not-
withstanding the endeavors of the authorities to
avoid encounters. Many of the officials carried
out the expulsions with extreme roughness;
some would not enforce the decree; none treated
the sisters with harshness. Departmental and mu-
icipal councils in Catholic sections passed resolu-
tions condemning the Government, and the
municipal councils of the industrial cities re-
torted with resolutions of commendation. Cler-
ical leaders appealed to M. Loubet, who forwar-
ded their communications to the ministers. Ladies
of society sought the intervention of Mme. Loubet,
but propriety forbade her to receive them. Leav-
ing a message that women's blood would be shed
in the streets if the women of the poor were de-
nied the privilege of giving a Christian education
to their children, some days later, at the head of a
demonstration of mothers of France they
attempted to present a petition to the Prime
Minister, but found the avenues leading to the
ministry blocked by the police. Some of the noti-
fications in the provinces were for the reason that the establishments affected were
virtually authorized by having been allowed to
buy lands and buildings or to receive legacies. It was decided to leave orphanages and charity schools undisturbed. In many of the departments the schools that received notices closed voluntarily; in 5 there were no religious schools; in 44 decrees were enforced. In many cases when the heads of the departments of resistance in the districts were arrested, priests and nuns were exposed to the same danger and the heads of the order commanded the nuns to leave, and the nuns desired to leave, but were restrained by the lay managers and by Clerical paritians. There were 6,000 monastic educational establishments that had not applied for authorization. About half of these the ministers decided to leave unmolested because they had acted in good faith, believing that no application was necessary. The number of schools thus exempted was about 1,100. Of the others, over 1,500 closed voluntarily. Decrees were enforced against 20 schools in Paris and 61 in the Rhône department, and on Aug. 1 decrees of closure were issued against 237 establishments in 32 other departments. There were 12,000 applications for authorization, which the Council of State would pass upon as expeditiously as possible. The 324 recusant schools must secure lay teachers if they desired to reopen in October. When the nuns went to the gendarmes to find the doors locked, and some of them surrounded by defenders—peasants who stood guard with pitchforks or youths who stoned them as they approached. In many places the inhabitants mounted guard or the mayors summoned them by sounding the tocsin, and in some the gendarmes were compelled to retire. In various towns hundreds of the citizens fought in the streets. The political leaders of the demonstrations counseled only legal resistance, not violence. Some of them suggested and inaugurated a general refusal to pay taxes. The boycotting of Republicans was begun in many places, and in some a run on the savings-banks was started. The agitation was more intense and general in Brittany than in any other part of France, and there the decrees were carried out last. The doors of the schools had to be opened by locksmiths or breachers had to be made in the walls. With more or less energy, the entrances to the schools were used to prevent the passage of the police. Prominent Clericals braved a criminal charge by breaking the official seals placed on the buildings. Priests accompanied the armed forces in the provinces. In one instance the nuns armed themselves with scythes to fight the police. Wherever the people were so excited that the schools could not be closed without a serious conflict the execution of the decrees was delayed, while the ecclesiastical authorities counseled submission. The superior of the largest order twice directed the Breton nuns to submit, but the lay owners of the schools and the inhabitants prevented their departure. Royalism as well as Catholic sentiment inspired a revolt which only the military could deal with in this old province, now almost the only part of France that elects royalist Deputies. Court proceedings against the legality of the decrees were instituted in very many places, the case generally recommended by the Church dignitaries and their political friends. One of the bishops advocated the separation of Church and state, since the majority of Frenchmen preferred apparently an athiestical republic. In some of the more troubled districts detachments of soldiers were sent to protect the civil officials in their task. In the department of Morbihan LIEUT.-COL. GAUDIN DE SAINT-BRIAC was ordered to aid in closing a school at Lanouen, refused to obey his general’s orders, saying that as a Christian he would not share in an act contrary to his faith and religious feelings. He was immediately relieved of his command. The government had to consider the acts of resistance in the districts, it did not, however, issue a general order against attacks on the clergy. The superior of the convents of Bourg-la-Reine, however, was exiled. The government’s fear of religious questions, as public opinion, the Bourbon kings and feudal attachment to the nobility were still a part of their religion. Barricades, earthworks, and ditches closed the roads. When the soldiers broke through or turned the barriers and reached the school-buildings, where they had to batter down the doors, they were greeted with cheers for the army, but the commissaries were assaulted, and sometimes the priests had to rescue their lives. Intrenchments and obstacles protected the buildings, and these were filled with people who threw filth and burning oil-soaked sticks into the faces of the gendarmes who attempted to enter. When an entrance was at length effected, the nuns marched arm in arm with the aristocratic ladies of the neighborhood to the church, preceded by trumpets and flags and cheered by the populace, who strewed their path with flowers. Some of the local courts upheld the lay owners, or nominal owners, of the schools. When the nuns had left, they removed the seals from the doors and resumed possession. In the departments where the public sentiment sustained the Government, though many persons were arrested, priests and nuns among them, and ladies of the old aristocracy, the sentences inflicted were the lightest, and these were remitted under the law allowing first offenses. The Minutemen of the Clerical and Reactionary movement which made Paris Nationalist and revived royalism and imperialism in the provinces, contrary to the admonitions of the Pope, was not derived from the dwindling and impoverished ancient aristocracy, but from the commercial, manufacturing, and professional classes. The bourgeoisie that accomplished the French Revolution had become enamored of the ancien régime. The spirit was strong in the army and navy and among the official classes, and when officials refrained from insubordination, the women of their families flaunted their anti-Republican sentiments in the view of the public. The Government, representative of a new social stratum, of the new order, was accused by the women of the peasantry, attributed this to the monopoly of middle-class education by the clergy. Hence the ministers, who found themselves in the awkward position of waging war on women, persisted in enforcing the associations law, in appearance at least, to betoken their determination to introduce secular education and bring up the youth of France as Republicans. The Government was sustained by 65 departmental councils on its policy of closing the schools, and censured by 3, while 15 recommended authorization and restitution of the schools. The belated execution of the decrees in Brittany was finally carried out by Aug. 20, in Finistere last of all, where Abbé Gayraud, the Deputy, could not dissuade the peasants, who left their harvest fields to champion the nuns, from fighting the police and soldiers. The orders after the struggle was over applied for authorization. Since the act of 1868 the religious faction of the clergy, lay teachers, and pensioners, was excluded from the 4,500 religious schools and 6,000 were still taught by sisters. For most of the closed schools lay teachers, often volunteers, were found, although there was a squadron to aid in closing a school at Lanouen, refused to obey his general’s orders, saying that as a Christian he would not share in an act contrary to his faith and religious feelings. He was immediately relieved of his command. The government had to consider the acts of resistance in the districts, it did not, however, issue a general order against attacks on the clergy. The superior of the convents of Bourg-la-Reine, however, was exiled. The government’s fear of religious questions, as public opinion, the Bourbon kings and feudal attachment to the nobility were still a part of their religion. Barricades, earthworks, and ditches closed the roads. 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and was carried out wherever they were still taught by nuns. When Col. de Saint-Rémy was tried the military court virtually upheld his con-
duct, disavowing the previous imprisonment. Gen. André, the first Minister of War chosen by the army who had made political speeches tinted with Radicalism, in accord-
ance with a demand of the Cabinet, placed Col.
de Saint-Rémy, whose previous military career was
unimpeachable, on the retired list. The Social-
ists and Radicals called for the abolition of
courts-martial, although in this case the offend-
ing officer had clearly acted from conscientious
motives after a mental struggle and with no po-
litical or self-seeking object, and was technically
not insubordinate toward his superior officer, but
had only failed to act on the requisition of the
Prefect transmitted irregularly by the general,
whose subsequent personal order was legally
void. The soldier had merely disobeyed the civil
power, a minor military offense, and the civil
power asserted its authority over the army by
retiring him from active service. The Pope sent
a message of condolence with French Catholics
in a brief to the Archbishop of Paris, which con-
tained no suggestion of a controversy. When
the Chambers reassembled in October a Socialist
Deputy proposed the abolition of the concordat,
the pact made by Napoleon I with the Vatican
which makes the hierarchy and secular clergy of
the Roman Catholic Church officials of the state,
recipients at present of annual stipends and
subventions amounting to 40,000,000 francs.
The question was indefinitely postponed by being
referred, with the approval of the Government, to
a commission to report in 20 days.

Dependences.—The colonies and dependencies of France have an aggregate area of over 5,000,000 square miles and over 50,000,000 inhabitants. The Minister of the Colonies directs the adminis-
tration of the colonies, all of which enjoy a large
measure of self-government. Algeria is not treated
as a colony, but its departments are assimil-
ated to the departments of France and the Gov-
ernor-General receives instructions from the min-
isters of the French Cabinet, except the Minister
of the Colonies and the Ministers of Finance, Jus-
tice, Agriculture, and Commerce. The President
and Council of Ministers. Tunis is under the
control of the Minister of Foreign Affairs. The
Minister of the Colonies is advised by the Su-
premier Colonial Council, composed of the Senators
and Deputies of the colonies which have repres-
entation in the French Chambers, delegates from
the others, and individuals appointed by the Gov-
ernment on account of their official relations or
special knowledge of colonial affairs. The Cham-
bers vote large sums every year to supplement
the revenues collected in the colonies. The total
amount of colonial expenditure for 1902 was set
down in the budget as 120,598,455 francs, while
15,212,947 francs were returned to the French
Treasury, 10,941,794 francs of this sum being a
reimbursement of military expenses from Indo-
China. Of the estimated expenditure 3,169,750
francs were the expenses of the Ministry of the
Colonies, 8,956,000 francs were subventions to
cover deficiencies of the public expenditure for
military expenses, and 8,960,800 francs were for
the maintenance of penal settlements. The serv-
ses of the French army and navy in the colonies
are entirely self-supporting, but from the budgets
of the Ministries of War and Marine. In 1901 free passages were given to 361
men, 154 women, and 114 children, who emi-
gated to the colonies, taking out a combined
capital of 720,000 francs.
The republic of Andorra in the Pyrenees, hav-
ing an area of only 175 square miles and 6,000
inhabitants, bears a feudal relation to France
and to the Bishop of Urgel in Spain, each nomi-
Nating the judicial magistrates in turn. Other-
wise it is self-governing.

Algeria is divided into the departments of Alg-
iers, Oran, and Constantine, each of which sends
a Senator and two Deputies to the French Cham-
bers. Paul Revoil was appointed Governor-Gen-
eral in 1901. The colonial budget is voted by
a Superior Council consisting of delegates of the
general councils of the departments. The mili-
tary territory consists of a part of the Algerian Sahara, which is governed by the military author-
ities, but they are controlled by the Governor-
General. The area and population of the depart-
ments, according to the census of March 24, 1901,
are given in the following table:

<table>
<thead>
<tr>
<th>DEPARTMENTS</th>
<th>Area (sq. mls.)</th>
<th>Civil territory</th>
<th>Military territory</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algiers</td>
<td>65,988</td>
<td>1,418,508</td>
<td>817,998</td>
<td>1,636,746</td>
</tr>
<tr>
<td>Oran</td>
<td>44,816</td>
<td>500,897</td>
<td>147,871</td>
<td>648,768</td>
</tr>
<tr>
<td>Constantine</td>
<td>76,868</td>
<td>1,818,107</td>
<td>1,298,197</td>
<td>3,116,304</td>
</tr>
<tr>
<td>Total</td>
<td>184,674</td>
<td>4,136,172</td>
<td>3,066,056</td>
<td>6,773,692</td>
</tr>
</tbody>
</table>

The total population in 1899 was 4,429,421, in-
cluding 318,137 French and 448,343 foreigners.
Of the native population, about 75 per cent. are
Kabyles, or Berbers, 15 per cent. Arabs, and 10
per cent. Moors, Jews, Turks, negroes, etc. The
number of marriages registered in 1899 was 42-
816; of births, 132,076; of deaths, 90,537. These
figures are very imperfect, as the native Moham-
medans generally avoid making reports.

The estimated revenue for 1902 was 36,470,947
francs, of which 13,066,907 francs came from di-
rect taxation, 8,306,200 francs from registration
and stamps, 14,027,180 francs from customs,
5,178,300 francs from monopolies, 3,723,820 francs
from domains and postal, and 6,276,365 francs from
various sources, and 3,203,035 francs were recettes
d'ordre. The total estimated expenditure was
54,384,666 francs, of which 7,200,134 francs were
for administrative expenditure, 2,274,850 francs
for education, 2,728,850 francs for justice, 8,451,918
francs for instruction and worship, 8,450,750
francs for public works, 4,813,744 francs for agric-
ulture and forests, 6,520,035 francs for commerce
and the post-office, and 7,920,552 francs for colon-
ization and charities. The appropriations for
religious worship in 1900 were 829,700 francs for
Catholics, 307,430 francs for Musulmans, 97,500
for Jews, and 28,970 francs for Protestants, and
2,100 francs for Muslims. The combined reve-
es of Algerian communities, of which there are
355, were 28,567,297 francs, their expenditures
23,210,977 francs, their debts 96,911,978 francs.
The military force in Algeria, the Nineteenth
Corps of the French army, numbered 57,292 men,
of whom 2,255 were officers, in 1901, with 13,434
horses.

The agricultural population in 1897 numbered
3,644,014, of whom 207,310 were Europeans, to
whom the greater part was for the public expec-
tations of which 310,900 acres had been sold or
granted. The native tribes hold a large propor-
tion of the soil in common. The agricul-
tural area is about 20,000,000 hectares.

The production of foodstuffs, but
from the budgets of the Ministries of War and
from 525,920 acres, 163,777 tons; of barley, from 3,635,995 acres, 1,189,567 tons; of beans, from 80,180 acres, 16,534 tons; of oats, from 231,800 acres, 97,536 tons; of dairi, from 70,333 acres, 229,875 tons. The acreage of vineyards in France was 51,830,000, of which 17,000 are of which are Europeans. Wine-growing is the largest industry, but the abnormally yield of France in 1900 and 1901 depressed prices so that the value for the export of wine and cider from the 1,000,000 gallons in 1896 to 500,000 gallons in 1900. The vineyards, covering 151,877 hectares, produced 3,583,932 hectoliters of wine in 1901. The crop of tobacco, covering about 1,000 hectares, was 40,207 quintals. There were 6,500,000 olive-trees. Ramee, colza, and other oil-seeds, alfalfa, dates, flax, and vegetables are grown. Alfalfa covers 12,000,000 acres, producing 4 quintals of hay per acre of dried hay. The quantity of cocoons produced in 1896 was 116,500 quintals. There was 90,000 hundredweight of cork cut in 1900 from the state cork forests, which have an area of 281,900 hectares. The total forest area is 3,247,692 hectares, of which about 75 per cent. is utilized, 1,359,485 hectares belonging to the Government, 79,919 hectares to communes, and 468,562 hectares to individuals, 25,000 acres of vines were 200,000 in operation in 1899, producing 173,749 metric tons of iron ore, valued at 1,287,000 francs, besides 377,192 tons not included in concessions, valued 3,374,259 francs; 380 tons of silver-lead ore, valued at 52,412 francs; 42,970 tons of zinc ore, valued at 2,125,805 francs; 200 tons of antimony ore, valued at 52,000 francs. The production of copper salt was 17,578 quintals, valued 7,950 francs. The production of phosphate of lime was 281,816 tons, mainly from Tebessa. Many other beds have been found in various parts of the country. The total value of the general imports in 1900 was 323,318,000 francs, of which 250,355,000 francs came from France and 64,463,000 francs from foreign countries and French colonies; general exports were valued at 262,317,000 francs, of which 173,447,000 francs went to France and 68,650,000 francs to foreign countries and French colonies. The value of the special imports was 313,330,000 francs, of which 307,000,000 francs came from foreign countries and French colonies; the value of special exports was 229,500,000 francs, of which 35,806,000 francs went to foreign countries and French colonies. The chief imports and exports among the chief countries are as follows, values being given in francs.

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>323,318,000</td>
<td>173,447,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>192,918,000</td>
<td>127,075,000</td>
</tr>
<tr>
<td>Morocco</td>
<td>8,944,000</td>
<td>9,378,000</td>
</tr>
<tr>
<td>Tunisia</td>
<td>231,814</td>
<td>7,729,097</td>
</tr>
<tr>
<td>Spain</td>
<td>8,924,754</td>
<td>8,905,875</td>
</tr>
<tr>
<td>Germany</td>
<td>11,126,976</td>
<td>5,003,595</td>
</tr>
<tr>
<td>Italy</td>
<td>5,904,785</td>
<td>4,720,335</td>
</tr>
<tr>
<td>United States</td>
<td>1,108,575</td>
<td>1,050,712</td>
</tr>
<tr>
<td>Brazil</td>
<td>2,935,362</td>
<td>2,100,148</td>
</tr>
<tr>
<td>Austria-Hungary</td>
<td>1,286,955</td>
<td>2,151,791</td>
</tr>
<tr>
<td>Russia</td>
<td>3,343,564</td>
<td>1,292,585</td>
</tr>
</tbody>
</table>

There were imported from foreign countries cattle for 10,988,551 francs, coal for 6,169,497 francs, coffee for 5,417,573 francs, lumber for 4,792,390 francs, tobacco for 2,029,329 francs, machinery for 1,753,533 francs, and boats for 1,709,500 francs, and hides for 1,022,540 francs, and exported to foreign countries alfalfa for 7,049,536 francs, tobacco for 6,823,031 francs, iron ore for 4,702,042 francs, hides for 4,929,920 francs, cork for 3,786,227 francs, vegetable fibers for 2,360,092 francs, and cereals for 1,780,367 francs. The value of wine imported from Algeria into France was 50,340,100 francs, of which 37,184,000 francs of sheep, 19,194,900 francs of wool, 11,480,000 francs. France exported to Algeria textile fabrics of the value of 33,457,000 francs, fruits, skins and furs of the value of 17,231,000 francs, clothing of the value of 16,600,000 francs, and machinery of the value of 9,663,000 francs.

There were entered at Algerian ports during 1900 from French and foreign ports 2,350,000 vessels, of 2,244,240 tons, of which 2,095, of 1,579,433 tons, were French; cleared, 3,485, of 2,553,130 tons, of which 2,056, of 1,542,420 tons, were French. There were entered at Algerian ports during 1900 from 2,493,935, of which 1,782,831 tons, in 1899. The length of railroads in operation in 1901 was 1,818 miles, not including an extension of 325 miles in Tunis. The telegraphs had a length of 6,845 miles, with 16,840 miles of wire; number of messages, 2,145,990.

A new railroad is being built into the recently annexed parts of the Sahara along the frontier of Morocco west of the town of Sudda. Though the inhabitants of Figgig still commit hostile acts against the French on their border, since the boundary has been defined no political question arises from such occasional incidents. The Tuaregs of the desert render the caravan routes unsafe, and troops are constantly employed in punishing the freebooting tribes, which send out parties of 200 or 300 well-armed robbers mounted on dromedaries.

The regency of Tunis, though nominally under the suzerainty of Turkey and under the rule of a Mohammedan dynasty, has, since about 1822, governed practically by a French Minister Resident General under instructions from the French Minister of Foreign Affairs. The Bey of Tunis, whose authority is now confined to religious matters, at the beginning of 1902 was Sidi Ali, born Oct. 5, 1817. The heir apparent was his son Mohammed, born June 24, 1835. The Resident General in the beginning of 1902 was S. Pichon. The army of occupation numbered 19,000 men, of whom 601 were officers, the cost of which is paid by France. The Bey has a guard of honor chosen from the officers from among the chief countries as follows, values being given in francs.
into a perpetual 3-per-cent. rente of 6,307,520 francs a year, representing a capital of 157,000,000 francs. The economy of France is thus engaged in agriculture. In 1900 there were 424,238 hectares under wheat, 430,171 under barley, 15,252 under oats, 15,252 under corn, and 11,622 under beans. There were about 300,000 quintals of wheat, 450,000 quintals of barley, 80,000 quintals of oats, 30,000 quintals of beans, and 25,000 quintals of corn sent to Marseilles in 1901. There are 200,000 hectares of olive-groves in central Tunisia, yielding 339,963 hectoliters of oil in 1901. In the south are 1,350,000 date-palm trees, and the annual export of dried dates is valued at 800,000 francs. The area planted to vines in 1900 was 11,374 hectares, 9,708 hectares belonging to Europeans, and the production of wine was 225,000 hectoliters. There were 9,830 quintals of cork bark cut in 1900 and 11,682 quintals in 1901. Oranges, lemons, pistachio-nuts, almonds, and henna are other products of the country, and alfalfa is exported. The mines in 1890 produced lead and zinc ores of the value of 2,141,000 francs, and the product of quarries was valued at 1,700,000 francs. The phosphate-mines at Gafsa yielded 150,000 tons in 1900. The fisheries, which were almost undisputedly in the hands of the English, in 1900 produced 134,350 kilograms of sardines, 28,450 kilograms of anchovies and 1,435,990 kilograms of other fish, the whole valued at 759,692 francs, and 45,824 kilograms of sponges, valued at 58,809 francs. The total value of imports in 1900, including precious metals was 61,514,243 francs; exports, 42,560,101 francs. The imports in 1899 were 63,777,803 francs, of which the principal ones were grain and pulse for 11,972,482 francs, textile fabrics for 8,222,587 francs, colonial produce for 4,564,028 francs, metal manufactures for 4,454,023 francs, animal products for 2,776,211 francs, pottery and stone for 2,621,087 francs, leather and paper manufactures for 2,197,37 francs, lumber for 1,013,220 francs, and beverages for 1,883,584 francs. The total value of exports in 1899 was 49,433,460 francs, the leading ones being olive and other vegetable oils for 14,098,887 francs, grain and pulse for 11,307,024 francs, ores and metals for 4,553,896 francs, and fruits and seeds for 1,223,078 francs. The imports of precious metals were 9,223,500 francs; exports, 8,018,000 francs. The values in francs of the trade in 1899 with various countries are given in the following table:

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>34,905,993</td>
<td>28,714,110</td>
</tr>
<tr>
<td>Italy</td>
<td>4,305,068</td>
<td>9,890,418</td>
</tr>
<tr>
<td>Great Britain</td>
<td>5,706,082</td>
<td>5,285,929</td>
</tr>
<tr>
<td>Algeria</td>
<td>1,000,756</td>
<td>4,345,994</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,000,756</td>
<td>1,369,923</td>
</tr>
<tr>
<td>Russia</td>
<td>8,350,365</td>
<td>40,926,604</td>
</tr>
<tr>
<td>Malta</td>
<td>254,767</td>
<td>1,826,909</td>
</tr>
</tbody>
</table>

The number of vessels entered at Tunisian ports during 1900 was 11,751, of 2,520,435 tons, of which 1,955, of 1,230,377 tons, were French. The length of railways in 1901 was 586 miles, of which 417 miles belonged to the Government of France. The length of telegraph-lines was 2,390 miles, with 5,330 miles of wire. There were 9 telephone systems, with 130 miles of line and 143 miles of wire, and 448 miles of long-distance lines, with 528 miles of wire. The number of conversations in 1899 was 300,000. The number of telegraph messages in 1899 was 701,600; the number of letters handled in the post-office, 5,000,000 internal and 11,772,792 external, the construction of four railroads of the total amount of 40,000,000 francs were authorized on May 1, 1902, and the first one for 5,000,000 francs, bearing 3 per cent. interest, was issued at 95 on July 29. Ali Bey died on June 11, 1902, and Prince Mohammed was invested as Bey. He agreed that his civil list and private estates should be placed under a French manager, without whose consent no payments or debts can be made.

The boundaries of Algeria and Tunis are defined on the south, and beyond them are territories conceded in conventions made with Great Britain to be a French sphere of influence which extend to the French protectorates on the Niger and the Congo (see WEST AFRICA), and will give France the greatest colonial empire in Africa when they shall be under the dominion of the republic. On the other side of Africa France has a new colony with a fine port giving commercial access to the interior of Abyssinia (see EAST AFRICA). Some of the islands off the southeast coast of Africa have been French possessions for centuries. By the conquest of Madagascar the second largest island is almost entirely added to the colonial dominions of France (see MADAGASCAR). The island of Réunion, 420 miles east of Madagascar, has long been the home of French creole planters who with sugar and coolie labor raise sugar-cane, vanilla, cacao, coffee, and spices. The Governor, P. Samary in 1902, is assisted by a Privy Council having 3 official and 4 nominal places, of which the General Council. The colony sends a Senator and 2 Deputies to the French Chambers. The area of the island is 865 square miles, and its population in 1897 was 173,102, including 15,219 East Indians, 9,848 Africans, 4,496 natives of Madagascar, and 830 Chinese. The town of St. Denis has 32,850 inhabitants; St. Pierre, 27,900; St. Paul, 20,000; St. Louis, 13,300. There is a French garrison of about 800 soldiers. The export of sugar in 1900 was 33,609 tons. The total value of imports in 1900 was 22,095,000 francs, and of exports 17,450,000 francs. The export of sugar was 10,125,000 francs; of vanilla, 3,275,000 francs. The imports from France and French colonies were 10,400,000 francs in value, and of exports to France and French colonies 9,896,000 francs. There were 138 vessels, of 189,625 tons, entered in 1900. A railroad, 83 miles in length, runs from Pointe-de-Galets to St. Pierre. It became the property of the Government in 1897. The local revenue in 1901 was 5,033,700 francs, balancing the expenditure, but France in 1902 contributed 4,661,681 francs, of which 2,652,000 francs were for the railroad and harbor. The petty islands of St. Paul and Amsterdam in the Pacific and the uninhabited isle of Keruquen belong to France. Mayotte has an area of 140 square miles. The population in 1896 was 11,640. Sugar is grown for export and for the distillation of rum. Vanilla is being more extensively cultivated. The raising of coffee, cacao, tea, and rubber is in the experimental stage. The value of imports in 1900 was 501,020 francs, of which 292,907 francs came from France and French colonies. The value of exports was 1,306,232 francs. The value of sugar exported was 1,000,000 francs; of vanilla, 153,570 francs. The local revenue in 1900 was 293,507 francs. The expenditure of France in 1902 was 20,000 francs. The debt consists of an advance of 500,000 francs for the purpose of repairing the damages of the cyclone of 1898 and repayable in twenty years without interest. The
Glorioso Islands, which have only 14 inhabitants, are attached to Mayotte. The Comoro Islands, to the south of Madagascar, are a group of 620 square miles, with a population of about 47,000, mostly Mohammedans, who cultivate sugar and vanilla and have planted more recently coffee and cloves. The islands of the different islands amounted in 1900 to 259,711 francs. Grande Comore has a debt of 950,000 francs. There is a large French coal depot there. The resident at the head of the local administration of Grande Comore is appointed by the Governor of Réunion, who appoints another resident for Anjouan and Mohéli, the islands having been placed under his direction in 1896.

French India consists of the towns of Pondichéry, Shandernagar, Karikal, Mahé, and Yanam and adjacent districts on the Coromandel coast. The total area is 196 square miles, and the population in 1901 was estimated at 273,185. The Governor, residing at Pondichéry, is P. F. Rodier. There is an elective General Council, and the governor is represented in the French Chambers by a Senator and a Deputy. The local revenue in 1901 was estimated at 1,255,000 francs. The expenditure of France in 1902 was 473,000 francs. The French government repays 30 rupees a year. Cotton and jute are manufactured and oil is expressed from earthnuts at Pondichéry, which exports oil-seeds to France. The value of the imports at this port and Karikal in 1900 was 4,037,937 francs, and of the exports 10,732,294 francs. The number of vessels entered was 373, of 478,848 tons; cleared, 331, of 475,854 tons.

French Indochina consists of the colony of Cochinchina and the protectorates of Cambodia, Annam, Tonquin, with the Laos territory, and the territory of Kwang-Chi-Wan, leased from China in 1898. The Governor-General of Indochina at the beginning of 1902 was Paul Doumer, residing at Saigon. He returned to France, and was succeeded in October by J. B. P. Beau. French minister to China at the time of his appointment. The military forces consist of 8,860 French troops and 14,935 native soldiers under French officers and non-commissioned officers. The general budget of 1901 was 12,000,000 francs in silver, of which 5,940,000 were derived from customs, 3,700,000 from the spirit monopoly, 4,600,000 from the opium monopoly, 2,400,000 from the salt monopoly, 2,000,000 from registration, stamps, and domains, and 3,751,000 from various sources. The expenditures were estimated at 22,982,000, of which 4,677,000 were for military expenses, 4,572,000 for administration of the customs and monopolies, 1,475,000 for posts and telegraphs, 3,800,000 for public works, 3,462,823 for the public debt, and 4,900,177 for various expenses. There have been heavy deficits, which now are said to have ceased. The taxes which bear heavily on the natives are to be lightened. Obstacles to trade in the customs service will be removed. The completion of the railroad system and its extension into Kwangtung, Kwangsi, and Yunnan are important Government enterprises, and projected irrigation canals for the benefit of the native agricultural interests present another financial problem. The equilibrium of the budget was disturbed once more in 1902 by bad harvests. The revenue for 1902 was estimated at 27,142,000 in silver, and the expenditure at 28,125,000. The expenditure of France was 33,574,923 francs. Free passages were given to 238 French employees of the Government in 1901 and 237 in 1901. The railroad from Saigon to Mython, 51 miles, has been in operation many years. A line in Tonquin from Phu-lang-Tuong to Langson, 64 miles, was completed in 1894. Loans were authorized in 1895 by the French Chamber of Commerce for the construction of a system of railroads throughout Indo-China. Contracts were made in 1900 for lines from Hanoi to Vietry, to Haiphong, to Ninh-Binh, and to Vinh. The line was extended from Langson to the Chinese frontier in that year and southward to Gia Lam, on the opposite bank of the Red river, from Hanoi. The railroads from Hanoi to Vietry, 98 miles, and from Hanoi to Ninh-Binh, 73 miles, were completed in 1902. Lines from Vietry to Laokai, 140 miles, from Ninh-Binh to Vinh, 135 miles, and from Tourane to Hue, 65 miles, were projected; one from Saigon to Tanlinh, 82 miles, was building; and lines from Panlinh to Lang-Biang and Khanh, 280 miles, from Hue to Kwaungtri, 53 miles, and from Laokai to Yunnan, 255 miles were being studied. The imports and exports of Indo-China have grown from 218,000,000 francs in 1896 to 534,000,000 francs in 1902. Special imports have risen from 81,000,000 francs to 392,000,000 francs, and special exports from 88,000,000 francs to 180,000,000 francs. The largest share in this increased trade has gone to France, whose imports into Cochinchina rose from 2,600,000 francs in 1900 to 100,000,000 francs, while exports to France increased from 10,000,000 francs to 39,000,000 francs.

Cochin-China is represented by a Deputy in the French Chamber. The area is 23,100 square miles; the estimated population, 2,325,499, of whom 4,481 are Europeans; 73,254 of the natives are Roman Catholics and 2,470 are Protestants. The native military force numbered 2,405 in 1902. About one-fifth of the area of the country is cultivated, the principal crop being rice, which covered 2,910,033 acres in 1900. There were 153,000 acres acquired by 355 Europeans. The production of rice was 607,800 tons in 1900. The exports of rice were 607,800 tons, valued at 80,225,000 francs. Exports of fish were 8,975,000 francs in value; of colonial products, 5,700,000 francs. Other exports are cardamom seed, copra, silk, cotton, pepper, and hides. Coffee is being planted, mostly by Europeans. The total value of imports in 1900 was 121,675,000 francs; of exports, 107,350,000 francs, of which 25,450,000 francs went to France and French colonies. There were 11,167,727 tons of goods entered and cleared at the port of Saigon during 1900. The length of telegraph lines is 2,276 miles, with 3,840 miles of wire. The local revenue and expenditure in 1901 was estimated at 4,294,244 in silver.

Cambodia became a French protectorate in 1862. The area is 37,400 square miles. The population consists of about 1,200,000 natives of various races, 250,000 Chinese and Annamites, 40,000 Malays, and 350 Europeans. The native ruler is King Norodom. Phnom-Penh, the capital, has about 50,000 inhabitants. The production of cement in 1900 was 750,000 kilograms. Rice is also an important crop. Other products are cotton, salt fish, tobacco, betel, indigo, cinnamon, and coffee. The local revenue in 1901 was estimated at $1,531,487 in silver, out of which the King and royal family receive $252,000 for the maintenance of the court.

The French protectorate over Annam was established in 1886 and Than-Thai was made King in 1889. Hue, the capital, with 30,000 inhabitants, is garrisoned with French troops, and the Government is under French supervision. The area is 52,100 square miles, with a population estimated at
6,300,000 Annamites and Mois, 4,000 Chinese, and 250 Europeans. Of the natives, about 420,000 are Roman Catholics. The products are sugar, cinnamon, rice, silk, corn, and other cereals, areca-nuts, tobacco, sugar, betel, manioc, bamboo, canchouche, cardamom-seed, coffee, timber, dyes, and medicinal plants. Of about 300,000 kilograms of raw silk produced annually 200,000 kilograms are woven by the natives and the rest is exported. The natives work copper, iron, zinc, and gold, which are mined in the province of Quangnam. At Tourane coal-mines have been opened. Cotton yarn and cloth, tea, petroleum, paper manufactures, and tobacco are the principal imports. The local revenue and expenditure for 1901 was estimated at $2,081,416 in silver.

Tonquin was definitely annexed in 1884 after a protracted war and Laos was added in 1893. The area of Tonquin is 119,600 square miles. The population is estimated at 12,000,000. A French resident, M. Fourés, directs the administration, the Annam Governor being withdrawn in 1897. Hanoi, the capital, has about 150,000 inhabitants. Rice is raised in great quantities and shipped to Hong-Kong. The production of silk is about 50,000 kilograms; 300,000 kilograms are woven by the natives. Cotton is grown and cotton-mills have been established at Hai phong and Hanoi. Sugar, pepper, oils, cardamom, coffee, and tobacco are produced. The quantity of coal raised at the Hongay mines in 1896 was 168,600 tons. Copper and iron are mined. Textile yarns and tissues, tools, hardware, machinery, and turbines are the principal imports. The total value of imports in 1900 was 68,800,000 francs, of which 28,750,000 francs came from France and French colonies; value of exports, 40,225,000 francs, of which 4,223,500 francs went to France and French colonies. The estimated local revenue and expenditure in 1901 was $4,197,050.

The Laotian territories have an estimated area of 98,000 square miles, and their population is estimated at 1,500,000. Luang-Prabang, the capital, has about 40,000 inhabitants. The cultivated products are rice, cotton, indigo, tobacco, and fruits. There are large teak forests from which logs are floated down the Mekong to Saigon. Concessions have been obtained by French companies to mine for gold, lead, tin, and precious stones. Steamboats have been placed on the Mekong above the rapids. The budget of revenue and expenditure for 1901 was $758,600. Cochinchina pays six-thirtieths, the Tonquin and Annam five-thirtieths, and Cambodia two-thirtieths of the cost of government.

The most important of French possessions in the Pacific is New Caledonia. The Governor is P. Feillet. There is a General Council of 20 members. The area is 7,700 square miles. The population in 1898 consisted of 19,053 Europeans, 1,829 Asiatiques, and 31,874 natives; total, 52,756. In 1899, of the entire army, there were over 54,000 inhabitants. Imported European and Asiatic laborers have increased the population. French laborers get a free passage. There were in 1899 in the penal settlement 3,622 convicts undergoing sentences of hard labor, and the exiles numbered 2,670, the deported 10, the discharged convicts 4,565. In 1900 there were 236 French emigrants. New Caledonia is a French colony, the Government furnishing transportation. The local revenue and expenditure for 1901 was estimated at 4,414,727 francs. The expenditure of French tonnage on Oct. 29, 1901, was 3,003,870 francs for the penal settlement. There are about 1,600 square miles of cultivated lands, 1,600 square miles of grazing lands, and 500 square miles of forest. The rest of the surface is mountainous. The penal establishments have a domain of 400 square miles. The natives have their own reservations. Other tracts of available lands form the state domains, out of which free grants are offered to settlers. The deportation of convicts to New Caledonia has ceased and the convict population is decreasing. Japanese laborers are no longer imported on contract, but the Japanese continue to arrive for agricultural labor and domestic service. About 800 Tonquinese and Indians from Pondichéry have recently been imported. Dalmatians who went first to New Zealand to dig kauri-gum migrated to New Caledonia, where they found more profitable work in the mines, and many of their countrymen have gone over from Europe to join them. Fewer laborers are being recruited in the New Hebrides.

The principal agricultural products are coffee, corn, tobacco, sugar, and manioc. The only land laborers till recently were convicts, Kanakas, and natives of the New Hebrides. Grapes and pineapples are grown, and experiments are being made in the raising of silkworms and the cultivation of wheat. The principal exports are mineral. The nickel ore mined in 1889 amounted to 74,614 tons, valued at 3,950,000 francs; cobalt ore, 3,254 tons, valued at 355,000 francs; chrome ore, 12,934 tons, valued at 644,000 francs; copper ore, 6,349 tons, valued at 488,000 francs. In 1900 there were 100,000 tons of nickel ore exported, and in 1901 there were 133,000 tons but in 1902 labor was too expensive to treat the ore on the spot. The value of the nickel, cobalt, and chrome exported in 1901 reached 8,916,000 francs. The total value of imports in 1899 was 10,988,198 francs, of which 6,846,199 francs came from France and French colonies; exports, 8,913,197 francs, of which 3,481,140 francs went to France and French colonies. The importation of cereals and flour were in 1899 1,543,923 francs; of beverages, 2,223,114 francs. The most important exports were minerals for 7,081,003 francs and 801,719 francs worth of canned meat for 358,797 francs. The Government, which owns 172 vessels, of 177,657 tons, entered 120, of 154,483 tons, cleared at the port of Noumea in 1899. A railroad, 90 miles long, is being built from Noumea to the south, where the island of Noumea is being improved. A line of steamers from San Francisco will carry American flour, wheat, and provisions and other products to New Caledonia. The tariff regulations providing for French implements have been removed. The new Australian tariff has diminished trade with Australia. Trade with France is increasing.

The Isle of Pines, 38 square miles in extent, with a population of 600, close to New Caledonia, has an establishment for habitual criminals. The Wallis Archipelago, having an area of 40 square miles and 4,600 inhabitants, over which a French protectorate was established in 1887, is administered by a resident under the Governor of New Caledonia. Futuna and Ailaf, south of these islands, have 1,500 inhabitants. The Loyalty Islands, which have an area of 800 square miles and 14,800 inhabitants, are administered from Noumea. Sandalwood is exported, and there are plantations of bananas. The Huon Islands have only a few inhabitants. The New Hebrides are the field of operation for French trading and mining companies, but by a convention concluded with Great Britain Oct. 29, 1867, they are under the protection of life and property under the authority of an Anglo-French commission composed of naval officers.
serving in the Pacific. The recruiting of women and traffic in firearms and intoxicants are forbidden by regulations adopted by the British and French naval commission.

The French Establishments in Oceania consist of scattered groups and islands in the western Pacific united under the authority of a Governor residing at Tahiti, G. P. T. Gallet in 1902. They have a total area of 1,520 square miles and about 20,000 inhabitants. The island of Tahiti, inhabited by a Polynesian race, has an area of 600 square miles and a population in 1900 of 10,750. Papeete, the capital, had 4,282 inhabitants, of whom 2,490 were French. The revenue of Tahiti for 1900 was 1,237,456 francs. The expenditure of France in 1902 was 796,332 francs. On the lowlands near the coast coconuts, bananas, oranges, sugar, and vanilla are grown. The imports in 1900 were valued at 3,521,286 francs; exports, 3,597,358 francs. Articles of food and cotton cloth are the principal imports. The largest exports in 1900 were copra for 1,291,490 francs, mother-of-pearl for 1,100,058 francs, and vanilla for 811,338 francs. Of the total value of imports 1,651,736 francs came from the United States, 644,482 francs from Australia, 721,810 from New Zealand, 577,074 from France and French colonies, and 317,080 francs from Great Britain. Of the total value of exports 1,525,667 francs went to the United States, 853,789 francs to Great Britain, 538,238 francs to France and French colonies, and 341,117 francs to New Zealand. There were entered at Papeete during 1900 only 40 vessels, of 29,343 tons; cleared, 42 vessels, of 29,436 tons. The island of Moorea has an area of 50 square miles with 1,596 inhabitants; Raiatea and Tahaa have 2,300 inhabitants; Huahine has 1,300; Bora Bora, 800. The Tubuai and Ravaite Islands have an area of 100 square miles and 1,700 inhabitants. Rapa has 15 square miles with 192 inhabitants. The Tuamotu Islands have about 5,000 population. The Gambier Islands, with an area of 8 square miles, have 580 inhabitants. The area of the Marquesas Islands is 480 square miles, with a population of 4,250; their products are oranges, copra, and mother-of-pearl. The total area of the islands belonging to the establishments in Oceania is 1,520 square miles, and their total population about 31,000.

In America France has the islands of Guadeloupe and Martinique and their dependencies (see West Indies), French Guiana, and the little groups of St. Pierre and Miquelon near the southern tip of Newfoundland. French Guiana has a General Council of 16 members and is represented by one Deputy in the French Chamber. The acting Governor in 1902 was Joseph P. Francois. His area is estimated at 30,500 square miles, and the population at 30,300, of whom 4,300 are convicts undergoing the punishment of hard labor, 80 are discharged convicts, and 2,650 are exiles. The number of Indians is about 1,500. The military force consists of 371 French soldiers. Only 8,800 acres are cultivated, though rice, corn, manioc, cacao, coffee, sugar, indigo, and tobacco are grown. The export of gold in 1899 was 81,715 ounces. The most valuable gold-fields were disputed by Brazil and have been awarded to France by the Swiss arbitrators to whom the question was referred. Phosphates, silver, and iron ore are expected to be discovered and produce cacao, coffee, and rum. There is a trade, too, in woods, of which valuable kinds abound, and in other forest products. In 1890 the value of gold exported was 68,266 francs; marble and stone, 185,000 francs; of rosewood essence, 50,000 francs; of gum, 15,000 francs. The total value of imports was 9,725,000 francs, and of exports 6,350,000 francs. Of the imports 7,000,000 francs came from, and of the exports 6,100,000 francs went to France and French colonies. The number of vessels entered and cleared at the port of Cayenne during 1899 was 150, of 39,872 tons. A railroad from Cayenne to the Atalante creek, 90 miles, has been authorized, which will later be carried 190 miles farther to where the boundaries of Brazil and Dutch Guiana meet. The local revenue and expenditure in 1901 was estimated at 2,892,818 francs. The expenditure of France for 1902 was 7,086,000 francs, of which 5,837,930 francs were for the penal establishment.

St. Pierre and Miquelon have an area respectively of 10 and 83 square miles, with 5,700 inhabitants in the former, which is the rendezvous of the French cod-fishing fleet, and 550 in the latter. There is a General Council elected by the people. The Governor in 1902 was E. Julien. There were 196 fishing-boats, of 9,692 tons, belonging to the islands in 1900. The value of imports in 1900 was 9,326,037 francs, of which 4,381,469 francs came from France; exports, 13,467,453 francs, of which 8,096,247 francs went to New York. New York is consisiting of dried and fresh codfish, cod-liver oil, etc. The revenue collected in the colony in 1901 was estimated at 691,011 francs. The expenditure of France in 1902 was 231,988 francs.

FRIENDS. The following are the comparative statistics of the Society of Friends (Orthodox) in America, by yearly meetings, for 1900 and before:

<table>
<thead>
<tr>
<th>YEARLY MEETINGS</th>
<th>1900</th>
<th>1901</th>
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<tbody>
<tr>
<td>Philadelphia (estimated)</td>
<td>4,480</td>
<td>4,409</td>
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<tr>
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<tr>
<td>Oregon</td>
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<td>1,097</td>
</tr>
<tr>
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<tr>
<td>New York (estimated)</td>
<td>8,773</td>
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<tr>
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<td>10,980</td>
<td>10,814</td>
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<td>Iowa</td>
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<tr>
<td>Indiana</td>
<td>20,544</td>
<td>20,234</td>
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<tr>
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<td>1,031</td>
</tr>
<tr>
<td>Baltimore</td>
<td>2,080</td>
<td>2,123</td>
</tr>
<tr>
<td>Total</td>
<td>98,496</td>
<td>98,204</td>
</tr>
<tr>
<td>Net loss for the year</td>
<td>296</td>
<td></td>
</tr>
</tbody>
</table>

The New England, New York, Philadelphia, Baltimore, and North Carolina Yearly Meetings were organized before the beginning of the nineteenth century. The New England Yearly Meeting was set off from the Baltimore Yearly Meeting in 1812. Indiana Yearly Meeting was established in 1812, and though 4 large yearly meetings—Western, Iowa, Kansas, and Wilmington (Ohio)—have been set off from it, it is still the largest yearly meeting in the world. Western Yearly Meeting, Indiana, which was set off from Indiana Yearly Meeting in 1857, is the second largest yearly meeting in the United States. Iowa Yearly Meeting was set off in 1863, and represents in its membership emigrations from nearly all the yearly meetings. Canada Yearly Meeting was set off from the New York Meeting in 1867. Kansas Yearly Meeting was set off from Indiana Meeting in 1872, and has members in Kansas, western Missouri, northwestern Arkansas, and the Indian Territory. The 14 yearly meetings in the United States and Canada represent about 130 quarterly meetings and 350 monthly meetings.

The Five Years' War of 1845 was a national organization of the Friends of the Orthodox branch in the United States was effected at Indianapolis,
FRIENDS.

Ind., Oct. 22-27, at the first regular meeting of the Five Years' Meeting as a permanent body to represent the year's work and to control the new constitution and uniform discipline (see Annual Cyclopedia, 1899, p. 307, and 1900, p. 246). Eleven of the 13 yearly meetings in the United States had adopted the new constitution and uniform discipline and were duly represented in the meeting, leaving only those of Philadelphia and Ohio without accredited delegates. The opening of the Five Years' Meeting was preceded, Oct. 21, by the final meeting of the Quinquennial Conference, out of which the Five Years' Meeting has been developed, which after hearing the report of the committee appointed to prepare the uniform discipline and the report of the treasurer adjourned sine die.

At the opening of the Five Years' Meeting, Oct. 22, fraternal delegates attended from Ohio and Canada Yearly Meetings, and members of London and Philadelphia Yearly Meetings were received as fraternal delegates. Nearly 290 delegates were present. Edmund Stanley, of Kansas, was chosen clerk, or presiding officer. The earlier sessions were occupied with the discussion of subjects connected with the prospective functions, enterprises, and policies of the church, the prosecution of which action was taken later. These subjects included The Scope and Work of the Evangelistic and Church Extension Board of the Five Years' Meeting; The Scope and Work of the Committee on Legislation; The Present Condition of the Indians and the Work to be done for them; The Present Condition of the Foreign Missionary Work of American Friends; The Scope and Work of the Board of Foreign Missions of the Five Years' Meeting; The Scope and Work of the Committee on Education; The Finances of the Five Years' Meeting; Plan for United Action for the Suppression of the Liquor Traffic; Methods of Practical Work among Rural and Urban Communities; Practical Aspects of the Present Trend of Religious Thought; How can an Efficient Ministry be Developed? Our Present Duty in the Cause of Peace and Arbitration; Our Church and the World; The Scope and Work of the Five Years' Meeting in our Church Organization; and The Theory and Practice of Public Worship. A paper was read on the place of women in the Church, that her full place should be given her. The matter of incorporating the Five Years' Meeting was referred to the Committee on Legislation, with authority to act and sign an application for incorporation. It was decided that the business of the meeting be transacted according to the rules of parliamentary usage. Of propositions for amendment of the constitution and discipline, besides a provision for the correction of casual errors, the only one adopted was a rule making new provisions submitted by one yearly meeting and approved by the Five Years' Meeting operative when adopted by four-fifths of the yearly meetings constituting the Five Years' Meeting. An Evangelistic and Church Extension Board was organized. A board on the condition and welfare of the negroes was appointed to take into consideration the best means of elevating them, with power to carry the same into effect. Resolutions were passed against lynching and lynch law. The work done by several of the yearly meetings in behalf of the negro. The work of the associated Executive Committee of Friends on Indian Affairs was continued, and the report of the same was accepted, and it was appointed the official representative of the meeting in that field. The Board of Education, having completed its organization, made a report, which was adopted, recommending the work on the basis of the new constitution and uniform discipline and uniform education to provide greater endowments for them; authorizing the establishment and conduct of a lecturership on the history and interpretation of Christian truth and as held by Friends; advising cooperation of Friends in the support of the existing course of Bible study in the colleges; commanding efforts by means of Biblical institutes to furnish a high character of Biblical instruction to members and suggesting the establishment of a course in one of the existing colleges; and constituting a financial educational board to receive and hold gifts and bequests for educational purposes. The work of the Peace Association, it being a well-organized and incorporated body, was approved, and the association was invited to represent the meeting and report to it regularly, while the yearly meetings were asked to support it. The American Friends' Board of Foreign Missions presented a review of its work, and the meeting, defining its functions and its relations to the other boards and the yearly meetings, declared its duty to be to represent American Friends in matters pertaining to the interdenominational aspects of foreign relations and the yearly meeting represented in the board, while continuing its own separate work, as heretofore, is expected to realize that this work forms a constituent part of the foreign mission work of Friends in America, of which the American Friends' Board has a general advisory oversight; "but it must not be interpreted that such advice carries with it any control of the Board." The yearly meeting adopted a call to a proper observance of the Christian Sabbath, and declaring "true, living, and reverent prayer" essential for the spiritual power of the meetings, and for the entire Church work in the world. A call was adopted to be sent to the governing bodies of the various denominations of Christians in the United States, inviting them to send delegates to a Temperance Congress to be held in the city of Washington on the second Wednesday of March, 1906, to consider in what way Christians can exert a united influence in the cause of temperance and by means they may work together. Five delegates at large and one additional delegate from each of the 11 annual meetings were appointed the committee of the present meeting for the Foreign Missionary Association of Friends entered the mission field at Tokyo, Japan, in 1885. Kansas Yearly Meeting began in 1883 to labor among the colored population and the coolies in Jamaica. The Woman's Foreign Missionary Association of Friends entered the mission field at Los Angeles, California, in 1887. New England Meeting was associated with English Friends in Palestine till 1885 when it took separate charge at Ramallah. Western Yearly Meeting took the work at Matahuala, Mexico, from Indiana Meeting in 1889, and has also a mission in South Africa. Ohio Yearly Meeting began a mission in China in 1880, and afterward in India. Oregon Yearly Meeting began in 1884, and California Meeting on Kotzebue Sound, Alaska, in 1897. The other yearly meetings have no special missions of their own, but cooperate with the yearly meetings, organizations and institutions they have undertaken. The American Friends' Board of Missions, which is incorporated in In-
Friends' Peace Conference.—A Peace Conference, known as the Friends' Peace Conference, was held in Philadelphia, Dec. 12 to 14, 1901, and was attended by about 300 delegates from all parts of the United States. All the yearly meetings and all the branches of the society were represented, either on the program by preachers or in attendance; and the fact was remarked that “for the only time since the days of the lamented separation, Friends of the three names united in a harmonious effort for a common cause.” The program of discussions comprised papers on the New Testament Grounds for Peace and the Elements of Peace Doctrine in the Old Testament; The Failure of the Christian Church in regard to Peace Principles; The Early Friends' Conception of Peace and War; The Growing Iniquity and the Inherent Immorality of War; Early Christianity and Peace; Peace, and the Christian Idea of War; Importance of teaching Peace Principles in Bible Schools; The Principal Influences making for Peace, and how they may be strengthened; The Duty of the Christian Church at the present time in the movement to abolish War; Internationalism; Peace Principles in Political Life and Institutions; To what Extent are they practised? The Present Position of the International Peace Movement; Present Encouragement for Friends of Peace; Misdeeds and Failures of Friends in their Peace Work; The Questions that constitute the True Peace Spirit; Remedies for Prevaling Militarism; Peace as involved in the Christian Method; War inconsistent with the Genius of Quakerism; The Influence of Quaker Peace Ideals on our National Life; Woman's Responsibility and Opportunity for promoting Peace Principles; and The Work of Quaker Women for Peace. A declaration was adopted, expressing the conviction that lapse of time has not made necessary any change in the position which Friends have always taken on the subject of war, but has rather strengthened it; and that war is irreconcilable with the precepts, example, and spirit of Christ, and is likewise out of harmony with the common principles of reason and morality, and is the antithesis of Christianity, and the negative, for the time being, of the moral order of the world. The progress that has been made toward peace in recent generations was gratefully recognized in the resolutions, and the establishment of the International Court of Arbitration was mentioned as one of the greatest events in the history of human society, and line with the policy always advocated by Friends. In 1901, the Southern Christian Endeavor Convention of Friends was held at Richmond, Ind., Aug. 8 to 10, and was attended by representatives from every yearly meeting in America, except those of North Carolina and Canada. An epistle was received from the Christian Endeavor Union of London Yearly Meeting. The Friends' Christian Endeavor movement was begun about 1892, in New York city. A general meeting was held in London in 1900. A special feature of the past year's work had been the institution of visiting meetings for the purpose of organizing new societies and encouraging those already organized. The results had been very satisfactory. Special remark was made concerning the interest taken by the societies in home and foreign missions. A number of classes in Church history had been organized, with special reference to the history of the Friends. The 489 societies represented in the convention returned 15,786 members, of whom 1,806 had joined during the year; 158 accessions to the Church from the societies; and total contributions of $9,476, including $1,105 for foreign and $5,710 for home missions. The total contributions were $1,228 more than in the previous year.

English Friends.—The statistical reports made to the London Yearly Meeting in May showed that while a few new organizations had been formed within its jurisdiction, others had lapsed, and the number that remained, 369, was 4 less than a year before. The number of recorded ministers was also 28 less, but were not evenly distributed so as to give each congregation a minister; for some congregations had no minister, while others had several. The number of members in Great Britain had increased by 128, and was now 17,470; while the number of "attenders and associates" had declined by 150 to 7,647.

In the London Meeting on Ministry and Oversight the sentiment was expressed that the meetings of that name ought to take definite measures for encouraging and helping ministers and those likely to take vocal part in meetings, by the loan of books and pamphlets, and in other ways, and there might be a standing committee to plan out courses of study. A recommendation in accordance with these views was drawn up to be submitted to the Yearly Meeting and oversight throughout the country, with the request that they report next year what they were doing to help the ministry. In a discussion on the subject of the Propagation of the Gospel it was pointed out that no adequate efforts were being made by the meetings on Ministry and Oversight to carry the Gospel in any practical way into the communities where Friends lived; and it was suggested that the local meetings should become pastoral committees and should initiate positive work for the propagation of the Gospel about them. A comprehensive minute was drawn up recommending this subject to the consideration of the subordinate meetings. The yearly meeting met May 21. The attention of the Woman's Meeting on the State of Society was given largely to the subject of maintaining a healthy home life and of a good understanding between parents and children. In the Men's Meeting on the subject of the difficulty of maintaining an active Church life in face of the modern pressure of business; the need of developing religious work among the growing population; deplored the present wars of nations making high profession of Christian civilization with less civilized and enlightened peoples, and called for the adjustment of matters at issue by Christian methods.
understanding by ministers of the intellectual dif-

culties and perplexities of their hearers; Chris-
tian service in grappling with the causes of phy-

cical and moral degradation; and the choice of

such newspapers for reading as took a high moral

standard and presented a Christian view of life.

It was decided to present the thoughts that had

been expressed in an epistle to the notice of the

society. In connection with the hearing of the

reports of members returned from the war dis-

tricts of South Africa, a committee was appoint-

ed to visit the quarterly meetings with a view of pre-

senting freshly to members their responsibility for

upholding the standard of the peaceful nature of

Christ's kingdom. The subject of the use of the

meeting-houses on Sunday evenings was consid-

ered in view of the question whether the Sunday

evening services should have the character of quiet

"meetings for worship" or should be of the

nature of mission meetings, with practical ad-

dresses of a teaching character. It was found that dif-

ferent methods succeeded in different places, ac-


cording to the character of the constituency. A

report on the subject was sent down to the con-

gregations, which were left to dispose of the mat-

ter for themselves. The district meetings were

advised, if the education bill should be pressed for-

ward, to urge amendments in the direction of

religious liberty and popular control. Measures

were considered having in view the greater ef-

ficiency of the Central Education Board. The

subject of the Reform of the Procedure of the

Yearly Meetings, which had been referred to a

committee in the previous year, was adjourned,

for further consideration by it. The formation of

a general meeting in Australia was approved of,

and a deputation was decided upon to attend its

opening.

GEOGRAPHICAL PROGRESS.

Arctic Regions.—No explorer has as yet reached the

pole, though some noteworthy results have been

achieved by expeditions that returned in 1902.

The most successful of these appears to have

been that of Captain Sverdrup, who went out in

June, 1898, in Dr. Nansen's ship, the Fram,

and returning, reached Stavanger, Norway,

Sept. 19, 1902. He discovered what is believed to

be the northeast latitude of the Arctic continen-
t and the north pole west of Greenland. A great island

was found north of the Parry Islands, extending to about 80° north

latitude; all north and west of this was an un-

broken sea of ice.

In an article on Arctic Problems, in the Geo-

graphical Journal, Sir Clements R. Markham

says: "After his [Nansen's] voyage there is no longer any geographical object in going to the

north pole, except for the sake of deep-sea sound-
gings, for it is merely a point in the polar ocean,

the economy of which has been made known by

Nansen. The really useful work that remained so as to connect the whole western side of the

arctic regions is (1) the discovery of the region

between the Asiatic coast and Prince Patrick

island; (2) the examination of the space from

Prince Patrick island to the farthest point

reached by Admiral Aldrich during the expedi-
tion of 1875; and (3) the completion of the trac-

ing of the north coast of Greenland.

"The first piece of work is the most difficult,

and it may well be that the region in question

contains no land and is merely part of the polar

ocean. The third would be a great and import-

ant achievement. Capt. Sverdrup intended to

attempt it by wintering in a hut on the north

coast of Greenland and sending the Fram round

to meet him at Cape Bismarck. This is the only

way it could be done; but two ships would be

safer. Prevented by the unfavorable season in

1899, Capt. Sverdrup fortunately turned his

attention to Jones Sound, which led to the

completion of the most important remaining

arctic work of all, namely, the discovery of

what was hitherto unknown in the wide gap

between Prince Patrick island and Aldrich's

farthest.

"The whole of the northern coasts of the

Parry Island were explored by the naval employ-

ees on the Franklin searches, from Jones

Sound to Prince Patrick island. But, except at the

western extreme of these discoveries, the ice

pressure was not very great, and it was supposed

that there must be land farther north. They

landed, at the eastern end Sir E. Belcher sighted land

to the north, which he named North Corn-

wall, and from Bathurst island land was sighted

to the north and named Findlay. Aldrich's far-

thest is some 250 miles to the north of Belcher's

discoveries. The great arctic work to be done,

by way of Jones Sound, was to decide these ques-

tions, to discover the western side of Ellesmere

Island, and to discover the land, if it existed,
to the north of the Parry Islands. In this way our

knowledge of the long line of coasts facing the

frozen ocean on the west side of the arctic regions

would be made complete.

"This great work has been done by Capt.

Sverdrup and his gallant companions during four

traveling seasons, entailing four arctic winters,

and it has been done thoroughly. They have

discovered the western side of Ellesmere island

and its intricate system of fiords, as well as 3

large islands west of Ellesmere island; they have

explored the northern coast of North Devon; they

have connected Belcher's work with the coasts

of Jones Sound; they have reached a point

within 10 miles of Prince Patrick island; and

they have discovered that land north of the Parry

Islands the existence of which was conjectured as far west as the longitude of the eastern coast

of Melville island. This includes the discovery

of the northern sides of North Cornwall and

Findlay island. In addition to the main arctic

problem which is thus solved, it is likely that

the region discovered will be of exceptional inter-

est, from the winds and currents, the varying

character of the ice, the existence of coal-beds,

and the abundance of animal life. A systematic

survey has been made of these important discov-

eries, checked by astronomical observations." 

Capt. Sverdrup's and Lieut. Isachsen's expedi-
tions together occupied three hundred and sev-
ecty-two days of actual travel, during which they

covered a distance of 3,000 miles and traversed

1,500 miles of newly discovered land. Besides

these expeditions, other important journeys were

undertaken. The expedition consisted of 16 men,

6 of whom were men of scientific training, geol-

ogy, botany, and zoology being all represented

by specialists. Astronomical, magnetic, and other

physical observations were also made. One of

the main objects of the expedition was to map

the Antarctic regions, and the work occupied

about six months of the time. The maps were

made on the scale of 1:2,000,000, and are among

the most accurate and complete that have ever

been drawn of the region.
Capt. Sverdrup, were Lieut. Isachsen, Mr. Bay, zoologist; Mr. Simmons, botanist; Mr. Schei, geologist; Mr. Svedsven, surgeon. All on board were prepared to put their hands to work of all kinds. A good supply of dogs was taken on board, and every preparation was made for sledge expeditions. The Greenland settlements were reached about the end of July, and an attempt was made to push the Fram northward through Robeson's channel, but she was caught in the ice at Cape Sabine, off Ellesmere Land, about 79° north latitude.

The following is taken from Capt. Sverdrup's account:

"On Aug. 17, 1898, we were stopped a little north of Cape Sabine by masses of ice, which we could not penetrate. The cold immediately set in and the new ice rapidly increased. We were therefore compelled to take up our winter quarters at Rice Strait. In the course of the autumn we made a sledge journey on the inland ice of Ellesmere Land. Exploring and mapping the innermost part of the flord at Hayes Sound was commenced. In addition thereto we made hunting expeditions, chiefly to procure food for the dogs. We shot about 226 musk-oxen. With such a large increase in the dogs' food I saw no objection to wintering at this place. Here was a good and large field of work. In the course of the winter a hut was built, which we intended to put up on Robeson's channel or farther north.

"In the spring of 1899 two sledge journeys were made across Ellesmere Land to the west coast, the one across the glacier district, the other farther north, across country free from ice. The mapping at Hayes Sound was completed. Scientific investigations were carried on until we left our winter quarters. The summer of 1899 turned out unfavorable. I therefore decided to go to Jones Sound, in consequence of which we left Smith's Sound Aug. 22, 1899. On the way we caught such a number of walruses that we had food for the dogs to last through the winter. We took up winter quarters on the south side of Jones Land, in latitude 76° 29' north, and longitude 84° 24' west. Shortly afterward I made a boating excursion with 3 men to explore and lay down a depot. We were, however, shut up in the hut and compelled to remain one month near the boat before we were able to go on board. On the ice on the return journey we met Baumann and 3 men, who had gone out in search of the boat. We had the sad news that Brakerud had died. He had caught cold while out hunting. After the arrival on board we made preparations for mapping and for laying down depots. Oct. 22 we were stopped by open water, 68 miles from the vessel; the fog was lying so heavy and thick westward that we could form no decided opinion as to the extent of the open water. The portion of the coast, which we had passed ran in a true westerly direction, which we could see was the case farther on. According to Inglisfield's map, the country ought to have curved northward. From our winter quarters we laid down the depot, and then entered a large flord east of the depot, where we shot 20 musk-oxen.

"On Feb. 23, 1900, Isachsen, Schei, Stoltz, and Bay proceeded with four, packs of dogs to the depot. They returned on March 3 with the information that there had been some heavy ice scattering on the land and that there was no advantage of the vessel. The depot was also destroyed by bears, and almost all the dogs' food eaten up. On March 7 Bay, Fosheim, and I again set out on fresh explorations. Bay was left behind at the depot on watch, while Fosheim and I proceeded westward. The same day we left Björneborg, which was the name we gave the depot, we met with open water, where large floes of ice were drifting backward and forward in the rapid current in the sound between North Kent and Ellesmere Land. The advance along the sound proved very difficult. We returned and came on board March 14. The main expedition started in two parties with 9 men and dogs on March 17 and 20. From Björneborg all proceeded on the 23d, reaching the sound the following day. The passage along the sound proved very difficult on the rugged ice. In many places there were pressure ridges right up to the side of the mountains. These pressure ridges at several places had to be worked through with pickaxes and spades. At other places the ice would be quite smooth, so that we, at steep inclines, ran the risk of losing both loads and dogs in the sea. After traveling three days, we passed the sound, which is 20 miles broad, without other mishap than losing a load in the sea. The rope connecting the dog with the sledge parted, so that the dog was saved. No lives were lost. We had now reached a smooth ice. The 31st of March, 175 miles from the vessel, the returning party, consisting of Baumann, Raanaa, Schei, Stoltz, and Henriksen, turned back to the Braborg. At that period we experienced a temperature of 42.5° of frost, and great difficulty in advancing. Two sledge parties proceeded farther northward for exploring the unknown west coast of Ellesmere Land with provisions for fifty days. The one party consisted of Isachsen and Hassel, and the other of Fosheim and me. North of the sound, between Ellesmere and North Kent, a large bay extends eastward about 100 miles broad. On the northern side of the same some large complicated floids are situated. The land extends about 50 miles westward from these, after which it runs in a north and northwesterly direction. In latitude 79° Isachsen and I parted, Isachsen receiving instructions to explore some new land which we sighted west of the Ice Barrier, and which I traveled through is very hilly and intersected by large flords, of which several are from 15 to 20 miles broad at the mouth. On May 4 we reached latitude 78° 30', which extends in a northerly direction. We returned to Björneborg on June 2.

"During the whole time we experienced uncommonly severe weather, the wind being so strong that the work was fog and thick weather. Bay, after our departure, had an encounter with a ferocious bear, which he at last killed. Fosheim and I came on board on June 4, after an absence of seventy-six days. During the whole journey we experienced almost daily snowstorms, accompanied with severe cold, when the snow and ice rendered it most difficult to proceed. Isachsen and Hassel came on board on June 19. After reaching the new land in longitude 98° west, they turned back, according to agreement, to the place where they separated, whereupon they traveled southward and afterward eastward to about longitude 89° west. Here they discovered a large system of flords, proceeding up some of them. The blubber of bear formed a substitute for fuel as the paraffin became exhausted.

"A third party, consisting of Schei and Henriksen, with provisions for forty days, chiefly on geological investigations, made an advance to the eastward. They had traversed two islands north of the sound and been some distance into that flord where Isachsen and Hassel were. On the return
journey they traveled across a large peninsula some weeks before. Baumann was in command of the returning party. After they left us they experienced very stormy and cold weather, and several were frostbitten in the face and on the hands on their arrival at Bjørnestad. From there they had accompanied Schei to the north point of North Kent, after which they went on board. In May Baumann with his party made some investigations to find a passage overland, whereby the sound might be avoided. We knew, of course, that it would be impossible to pass on our return. He deposited information at the search place north of the sound. On my return to the Fram I learned that the vessel was nearly destroyed by fire on one of the last days of May. The awning had been ignited by a spark from one of the water-tight compartments and spread in flames. The kayaks stored under it, as well as other inflammable things, burned violently. The main rigging and the mast caught fire. Fortunately, it burnt in the middle of the day, while there were plenty of people on the deck. Along the side of the vessel we had water enough for extinguishing the fire, and we succeeded in subduing it.

"The summer work began with scrapings, at first through cracks in the ice, afterward at various places. Gradually the ice broke up. Aug 9 we reached the ice edge, which was soon stopped in the sound. On the 10th we got fast in the ice north of Grinell Island. A heavy northerly breeze kept the ice tightly together. We got fast to it till Sept. 16, when the southern gales dispersed the ice. We then proceeded down through Cardigan strait and took up our winter quarters in the fjord next to the sound, latitude 76° 48' north, and longitude 89° 46' west of Greenwich. We shot this autumn 28 musk-oxen, and, as last autumn, a number of hares. The passage we now used to the coast northward went across a neck of land about 600 feet high. The place where we got down to the sea we called Nordstrand. After the autumn hunting was completed Olsen and I were to proceed up to the large fjords north. Olsen, on the west coast, had got his arm out of joint at the shoulder. As the wind was too strong for a traveling tent to be pitched, we had to go back to Nordstrand. I placed Olsen in a tent, but my attempts to set the arm right were in vain. The storm lasted three days. Two of my best dogs were choked by the snow, and one I lost on the hunting expedition last autumn. The fourth day we went on board and put Olsen's arm right. In the winter we were much visited by wolves, and we had enjoyable wolf hunts in the silent hours of the night. We captured a few alive. On March 12, 1901, two parties went out, each consisting of four men, to lay down depots. The mean temperature was minus 45° C.; some days it was even below minus 50°.

April 8 all parties set out. Baumann, Schei, and I, northward; Baumann and Henriksen accompanying us a little distance north of the depot. Therupon we proceeded farther northward, but found ourselves at the bottom of this system of fjords. When we could find no reasonable land passages we turned back and entered a fjord immediately north of this system. On April 29 we reached the bottom of this fjord. Here we found a fairly good passage northward, where we got down to the sea on April 29. This was that system of fjords which had been explored by two parties last year. On May 1 we saw from latitude 70° north, in very clear weather, that there was still some sea ice outside the sound. We continued northward.

On May 4 I despatched the Radaas across to follow the eastern land, whereas Schei and I continued along the western. At latitude 80° 30' the land turned westward; on the west side of the sound we followed the latter, but found ourselves very soon in rough polar ice. As the weather now became very stormy and foggy, we had to turn, sacrificing the rest of the season, to the piece traversed and southward, from where not a few fiords are running into the land. On May 17 we were roused at night by an awful howling of the dogs. When we came on deck we found 12 wolves, which were on the point of carrying away one dog of my pack. When we fired at them—and some of the wolves were killed—the rest ran away rapidly. The dogs were quite helpless, as they had muzzles.

On June 18 we arrived at the Fram. Isaachsen and Haaland found, in about latitude 78° north, a sound separating North Cornwall from the track of land to the north. We traveled through this sound, following the south coast of the land, north of North Cornwall westward and then northward. Then we continued along the land in a northwesterly direction, latitude 79° 30' north, and longitude 106° west, when the land turned eastward and southward. On the west coast no land could be seen, westward, and on the northern coast, quarter, steering westward along Jones Sound. We then proceeded southward and eastward. This islands were explored all round, after which Isaachsen traveled down on Graham Islands, and across to Ellesmerie Land; he came on board on June 7.

"Baumann and Stolz left the Fram on April 24 to investigate more closely the system of fiords, into which I first entered this spring. It was proved on this trip that the neighborhood of these fiords is probably the part of Ellesmerie Land most abounding in game. Musk-oxen, reindeer, and walrus are very plentiful. Nansen and Raanaas had explored a fjord about 70 miles long, which runs in from Greely fjord in a south-easterly direction.

"The whole of this summer appeared very unfavorable for getting out of the ice. We tried blasting, etc., but to no purpose. Then we tried to force a passage along the land at every highwater, as the ice there would always be somewhat slack. In this way we succeeded in advancing 9 miles southward, but after touching the ground several times we did not get out. We now had to procure food for the dogs during the winter. Two hunting parties in Jones Sound got about 20 walrus, which proved sufficient. Bay remained on guard at the meat until the ice became thick enough for it to be conveyed on board. On a very dark night in October he was surprised by a bear. He tried to get out, but his sweater caught something in the door, so he could not move. However, he fired his rifle. At dawn he crept out and found the bear lying dead not far away. After the walrus hunting, two parties were despatched northward to procure fresh meat for the winter. They shot about 18 musk-oxen, which were transported on board; then the walruses were brought on board, and the excursions were at an end—Nov. 4, 1901.

"Isaachsen and Bay explored the west coast of North Devon from April 23 to May 22, whereupon Isaachsen and Simmons made a twenty-four days' sled excursion in order to fetch
fossils from a ford in the north, where they had formerly discovered considerable beds of coal. We arrived at Godhavn, Greenland, on Aug. 18. We left there on Aug. 22, passed Cape Farewell on Aug. 28.

Lieut. Robert E. Peary returned from his four years' sojourn in arctic regions on the relief steamer Windward, reaching Sydney, Cape Breton Island, Sept. 18. He did not reach the pole; his highest point was 84° 17'. The party of the Duke of the Abruzzi reached 86° 33' in 1900. Lieut. Peary announced that important scientific discoveries had been made by the expedition. The following passages are from his report of the operations from August, 1901:

"Left Erik harbor, on the Ellesemer coast, Aug. 29. The party reached Payer harbor Sept. 16, crossing Roosy Bay partly by sledge and partly by boat, then walking across Bedford Pim Sound. About a week later my Eskimos began to fall sick, not one escaping. By Nov. 19 adults and one child were dead, nearly all the others very weak, but out of danger.

"Early in January Eskimos came across from Anvilik, bringing news of the ravages of a fatal epidemic throughout the tribes. 80 or 90 were sent back by the scouts for as many of the survivors as could come to the sea, and by the end of the month they arrived. In February a large depot of dog food was established near Cape Louis Napoleon, 60 miles north of Sabine. On March 3 my advance party of 6 sledges, in charge of Hensen, left for Conger. March 3 started with the main party on the return. Conger was reached in 12 marches, arriving within an hour or two of the advance party. My supporting party of Eskimos, returning from Conger, brought down the instruments, chronometers, and arctic library. Eight marches more took us to Cape Hecla.

"The north end of Robeson channel was all open across to the Greenland coast. Lakes of water, extending northward, could be seen from Black Cape and Cape Ransom. From Hecla another supporting party returned. April 1 started back with Hensen, 4 Eskimos, and 6 sledges. Old fowls, covered with snow and intersected with rubble ridges and lanes of young ice, were encountered from these, and a better back. 80° and 70°, and he believes not more difficult between 80° and 90° than between 70° and 80°. He thinks there is no open ocean in the extreme north, and he is constantly frozen sea, though the waters are practically covered always with ice. The shore of Greenland he believes the most northerly land on the earth.

"The expedition went out in 1901 under Dr. Ziegler under command of Evelyn B. Baldwin, returning, arrived at Honningsvaag, Norway, Aug. 1. A supply ship, the Frithjof, had left Tromsoe July 1 to carry coal and bring back news of the expedition. The result of the undertaking is regarded as a failure, in that the explorers did not reach the pole, which achievement was declared to be the specific purpose of the expedition—to plant the American flag at the north pole—for which it was more fully equipped than any previous expedition has been. In explanation of this Baldwin says: A large part of the course of nearly a year and a half's incessant work we have accomplished more than the unfavorable conditions which surrounded us really warranted, and we have, in addition, brought back a vast amount of data which ought materially to assist subsequent explorers. For the first time in the history of north polar exploration a photographic record of the land and sea formations of the arctic and of the animal life of those regions so complete as to be practically exhaustive. In this respect the cinematograph has played an important part in the first time it has ever been successfully employed in the far north—and we now have over 1,000 perfect photographic representations of our work. In addition, we have over 200 drawings and paintings."

The character of the ice in the Franz-Josef Land archipelago, all the channels of which were blocked in the autumn of 1901, prevented the America from going far enough north to allow of establishing headquarters favorable for sledge work in the winter and spring, so that winter quarters had to be made at Camp Ziegler, the station founded on the explorer's first arrival in 80° 23' north, instead of at the higher point they had hoped to reach. In addition to this disadvantage, more than half the dogs died of disease. Mr. Payer's scheme was to establish our-
any dash to the pole. After spending our first winter in this depot, I intended, before the return of the sun, to throw out advance parties northward from Rudolf Land to about the eighty-third parallel, so as to begin the real polar dash from that point. In evidence of our sincerity in carrying out the primary object of the expedition, we have now the distance of point fastening to the establishment of our depots, from which it will now be possible to despatch parties from Rudolf Land without its being necessary to endanger a ship at a higher latitude than Camp Ziegler. Altogether, we have formed four large stations, for the transport of which an ordinary arctic vessel would be required. In the establishment of these depots we were obliged to travel over the same ground at least ten times. This severe work naturally led to the wearing out of our sledges, many of which, in the intense cold, became exceedingly brittle and went in pieces like glass, especially when traversing the heavy screw ice. I despatched 15 balloons with 300 messages, and in June I obtained the first moving pictures of arctic life. I also discovered Nansen's hut, recovering original documents and securing paintings of the hut. Marine collections for the National Museum, including new charts, etc., were made. We also employed 13 ponies, 60 sledges, and 170 dogs were employed from Jan. 21 to May 21. To each of the balloons was attached a string of buoys, which by means of automatic contrivances were released as they touched ice, land, or water. As northeasterly winds prevailed, it is likely that these balloons were driven upon the great field of ice which this year covered the eastern coast of Spitzbergen; when they are released by the movement of the ice they will, it is expected, furnish data concerning air and sea currents."

A story was sent from Winnipeg in the summer regarding the fate of the explorer Andrée and his companions. It lacks verification, but seems to have some evidence in its favor. As Andrée set out in 1896, there must be an error about the time at least, since, according to the story, he would not have come down till three years later—that is, in 1900. Following is the description:

"Rev. Dr. Ferlies arrived from York, Northwest British Territory, brings authentic information of the fate of explorer Andrée and his companions. He states that York, a party of Eskimos, under the leadership of 'Old Huskie,' saw the Andrée balloon alight on a plane of snow in that vicinity, which is about 30 miles north of Port Churchill. Three men emerged from the balloon, and some of 'Huskie's' people approached them out of curiosity. As they did so, one of Andrée's companions fired a gun. This is a signal to uncivilized natives for battle. It was regarded as a challenge, and almost instantly the natives fell upon the three explorers and massacred them. Everything pertaining to their outfit was carried to the homes of the natives on the border of the arctic region. 'Old Huskie' himself gave this information to Ralph Alvise, agent for the Hudson Bay Company, and the story, after being investigated by Dr. Ferlies, was told by him. He says that there is little room for doubt, as frequent reports have since come of the strange implement which the northerners used in their possession, the telescope being particularly described."

**Antarctic Regions.**—The Scottish National Antarctic Expedition, which arrived in New Zealand in Nov. 3, with William S. Bruce as leader. The Norwegian whaler Hekla was bought, renamed the Scotia, and reconstructed for the expedition. The Scotia is a bark-rigged auxiliary screw steamer, of about 400 tons register, measuring 140 feet in length, 29 feet in breadth, and having a depth of 15½ feet. The ship is being especially fitted out to carry on oceanographical research. Two great drums, each containing 6,000 fathoms of cable for trawling and trapping in what is supposed to be the deepest part of the Antarctic Ocean, were taken, for Mr. Bruce intends to follow the track of Weddell, who sailed from Leith in 1823 and attained a latitude of 74° 15' south. Eastern of this track Ross obtained a sounding of 4,000 fathoms and no bottom.

A steam-yacht, the Morning, has been sent out by the Royal Geographical Society to the Discovery, which carried the National Antarctic Expedition (British) to antarctic waters in 1901. Besides carrying supplies and acting as tender to the Discovery, the Morning will supplement its work, being well supplied for taking observations.

In a letter from the steamship Antarctica in February, Dr. Otto Nordenskjöld, leader of the Swedish antarctic expedition, says: "Our expedition has its last contact with civilization at Station X, 30 miles north of Cape Horn, where the Argentine Government has erected a magnetic observatory to cooperate with the antarctic expeditions in 1902. Jan. 6 we left the island. On the morning of the 11th all on board could know that we were in a new world. The air was cold and the water at the freezing-point, but the land itself was hidden by fog. Suddenly at noon the fog lifted and unveiled to our view in its unsurpassed grandeur the first of the antarctic lands to be seen. It was King George island, in the chain of South Shetlands. The island is very mountainous, and some of its peaks attain a height of 2,000 or 3,000 feet. Between these peaks are broad valleys, and anywhere else in the world this island would show all the contrasts of a varying nature. But up to the highest summits everything is covered with snow and ice. The valleys are filled by immense glaciers, connecting over the ridges with their neighbors, climbing the mountains and far more luxuriant than the vegetation of tropical forests. To the east or to the west there seems nowhere to be an outcrop of bare rock, and only at a few miles north of the southern end of the island there are high promontories of steep cliffs. But all along the coast are rocky islets, often low but always of the boldest shape, and, in contrast with the main island, those islands are almost always completely free from snow. The whole scenery presents a type of a glaciated country such as our own was at a remote period, a good deal different from Greenland. Even in the farthest north there does not exist a land so overwhelmed by the snow as this island. Only at the extreme west of the island was there a strip of lowland. We did not stop there, but proceeded to another island, Nelson island, where the name on the chart, Harmony cove, seemed to intimate that we would find a favorable landing place. And it was, in fact, a nice little place, far more inviting than one could ever expect after the first view of the land. The bare space was not very large and the snow was creeping down on all sides. But we have in the neighborhood, in the moist possible ground in the poor vegetation of mosses, lichens, and algae of many different species. On the knolls of moss there was a rich life of small insects, and even a little bee (Cylindromerus) to prove that the antartic, rewarded the work of the entomologist.
But, with all this, no land in the arctic can be compared with this in poverty. On the other hand, suitable places there is life enough, so rich even that it would be much easier to live in than the Arctic, with volumes of 100 cubic feet at the junct. But this life almost all depends upon the sea. The deerge and the net have unveiled to us a fauna so rich in numbers, so wonderfully varied in its forms, that I do not believe it is paralleled in the arctic, and even the specialists often stand wondering before this new and unexpected life. Not only is the surface of the sea crowded by shrimps and other lower forms, but there also exists a richness of fish some of which would probably in other parts of the world give rise to a great industry. Nowhere else are the swarms of whales as some of them among the largest of their kind, nearly so numerous as here. Even the seals are crowded along every coast, and everywhere in the ice-pack. On the shore where we landed they were cocky, and they were so tame that they allowed themselves to be scratched on the neck and the back.

When approaching the shore you will be met by swarms of an animal that would hardly be recognized by any one who did not know it before. Necessarily you will think of the flying fish when you see a long line of black spool-shaped beings, with two flait appendices, throwing themselves high out of the water, only to come down again and continue their flight below its surface. Thousands of penguins breed on Nelson island, but that is not one of the best places to study their life.

After Jan. 11 followed a week of the most interesting discoveries. At the western end of the Louis Philippe Land Dumont d'Urville had seen in 1838 a deep cut into the land, which he named Orleans inlet, and here at first we steered our course. The land and the channel trended unceasingly to the west without interruption, and, after twenty hours on a virgin sea and amid the grandest scenery, we found ourselves in the regions examined by the Belgian expedition and in the channel called by them after their steamer, Belgica. Louis Philippe Land is only a part of the great continental mass called on the maps Graham Island. We then turn back to get into the Atlantic. Here we followed the coast, stopping a short time at Cape Seymour, one of the most interesting points in the whole antarctic by reason of its being the only place where fossils have been until now discovered.

America.—A hitherto unknown region between Great Slave lake and Hudson Bay was surveyed in 1800 by J. W. Tyrrell and C. C. Fairchild. It lies west of the Doobauta river. The route began from the lake, the most easterly bay of which was named Charlton harbor. It is about 16 miles long, and is connected with McLeod Bay by a deep channel less than a mile wide. Lockhart river, which flows into Charlton harbor, was surveyed. The Parry falls were found to be beautiful, but on a smaller scale than as described by Back, a former traveler. Artillery lake lies at an elevation of 1,188 feet, which is 608 feet higher than Great Slave lake. The height of land was found to be 7 miles away, and on its eastern horizon was a new lake, Lake Douglas, with outlet toward the north or east. The main route led north by the Kashina river and lake to Lake Clinton Colden. Thence the height of land was crossed, and a string of lakes was followed to Hanbury river. This river runs through a wild chaos, Dickson caison, beginning with a fall of 50 feet. Below, the country assumed a more verdant appearance, with trees and flowering plants more abundant, affording feeding-grounds for musk-oxen. The Hanbury flows into Theron river, a large stream with a volume of 300 cubic feet at the junction. It is navigable for river steamers 530 miles from Hudson Bay. The district seems not well adapted for farming, but the timber supply and the herds of musk-oxen should be of considerable value.

An account of an exploration on the eastern coast of Labrador by a party of 10 under the lead of Willen Glazier says they set out from the Moravian mission station of Nain in latitude about 50°5 north. Following up the bay on which the station stands, they discovered a fine river about 135 miles long. It flows through 7 lakes, the largest 40 miles long and surrounded by precipitous mountains rising 1,000 to 2,000 feet above it. From these many cascades fall into the lake. The lake is connected by rapid. Returning to Nain, the explorers went north to Okak Bay, the site of another mission station, and ascended North river. The interior of the country was found to be bleak and desolate and destitute of inhabitants. The only vegetation was a few spruce and larch trees and some alders and wild grasses. There are caribou in abundance, and in the bay are rivers seals and fish. The commonest metals are iron ore, copper, mica, and Labradorite.

An exploration in British Hindus was recently made by Mr. T. F. Bull, a region supposed never to have been visited by white men. Southwest of the Cockcomb mountains, was named King Edward's Land; and beyond this another range of mountains was reached. On the south, the explorers found still another range, extending west and south, which they named Queen Alexandra's mountains. The peaks of the Cockcomb mountains which the party ascended were named, one for Joseph Chamberlain and the other for lady Wilson, wife of the Governor.
ney cost me the lives of two men and of almost all my animals. The baggage animals were yaks, which were procured by command of the Dalai-Lama. The results of this last journey in Tibet are recorded on a map of 37 sheets.

"In April I broke up from Leh, and crossing the Karakorum pass, went down to Yarkand; thence traveling via Kashgar and the Caspian Sea, I returned to Stockholm, where I arrived on June 27, 1902. The successful issue of this journey, which lasted altogether three years and three days, was in great part owing to the circumstance that his Majesty the Emperor of Russia most graciously appointed an escort of four Cossacks to attend upon me throughout. Than these I have never had more honest, more capable, or braver men in my service."

"My first journey of 1893-97 has been regarded as marking an advance in the knowledge of the geography of central Asia. The last journey of 1898-1902 has yielded results three times as rich as those of the former journey, and in the course of it I have been enabled to lift the veil which for a thousand years had hidden vast stretches of the mountainous and desert regions of that part of Asia."

"My cartographical material extends to 1,140 sheets, and if these were arranged end to end in a long row they would stretch over a distance of 1,000 miles. A large geological journal was kept without interruption throughout, in part during my expeditions, in part also and simultaneously in my principal fixed camps, where a thermograph was in constant operation. The abundant materials thus gathered in are now being worked up by Dr. Nils Ekholm. I took also over 2,000 photographs, using for this purpose an English camera and English-made plates, and the results leave nothing to be desired. Anatomical collections of the higher animals were made, including aquatic animals in spirits, and a herbarium was brought together. The geological profiles of Tibet will be illustrated by some 700 rock specimens collected in that region. I have also brought home a number of zoological and ethnological objects of extraordinary interest, and I made further a great quantity of sketches, diagrams, and drawings from nature, so that the picture of Tibet becomes more complete than it has ever been known before."

"Dr. W. H. Workman and Mrs. Workman, on a third expedition among the higher Karakorum mountains, devoted their attention chiefly to the Chogo Lungma glacier; they examined also three large tributary terminal glaciers. The upper part of the Chogo Lungma glacier has not heretofore been explored, and the map found to be wholly incorrect. The glacier takes its rise in a steep snow wall, or wall, above 20,000 feet in altitude, which connects two lofty peaks, one of which is fixed by the Indian survey at 24,480 feet. The other seemed to be little lower. Several other peaks nearly as high send down large glaciers to help form the Chogo Lungma. One of the tributary glaciers brought the explorers under the northern flank of Mount Haramosh, which is 24,285 feet high, to a broad snow pass, at a height of 17,500 feet, from which another glacier plunges sharply down to the river into a deep valley, whence, by crossing a lower ridge at 15,000 feet, Gilgit can be reached. The surface of the great glacier is irregular, and it is in many places undermined by small watercourses. A group of tributary glaciers are nearly all broken at different places in their course by impassable ice-falls. At the entrance of the Haramosh arm a deep depression in the surface is occupied by a large lake."

In a paper on this subject in Chinese Turkestan, read before the Royal Geographical Society, Dr. M. A. Stein said that the idea of explorations about Khotan was suggested by the discoveries of M. de Rhodes, the French explorer who followed Hedin's march of 1895, which was first made known in 1898. With the help of the Indian Government Dr. Stein was enabled to set out in April 1900, and reached the capital of the Humza chief in June. In that city the carved woodwork exhibited the features of old Indian decoration, while in the Mir's residence the furniture and fittings were Chinese in type. Arriving at Taab-kurghan, Dr. Stein was enabled to prove the identity of the territory of Kir-p'an-to with the modern Sarikol. A fresh start was made from Kashgar in September, and Khotan was reached in October. From this point a survey was made of the Yurung-kash flowing between ranges of lofty peaks 23,000 feet high and connected with certain recognized peaks in the Indian triangulation. After beginning excavations in December the first find of importance was some leaves of manuscript in Sanskrit, which might be assigned to the sixth century. In addition there were documents in non-Indian characters which represented the indigenous tongue of Khotan. The discovery of Chinese writings dated 775-778, as well as coins of about 790, seem to show that Dandan Uiliq was abandoned at the end of the eighth century. The district was probably irrigated by canals bringing the hill water to the desert, and no advantage would be lost for its desertion. An older town was discovered in the desert north of Iman Jafar, where tablets were unearthed bearing the ancient Indian script Kharoshthi. The area over which ruins are scattered is about 11 miles by 4, and the buildings were constructed in a massive style of beams of wood and plaster, which has served to keep the tablets in a high state of preservation. There were also pieces of pottery of great antiquarian interest and notes in various writings. The clay seals with which the tablets were fastened show the influence of Western art and include figures of Pallas Athene, Eros, and portraits with classical modeling and barbarian features. The discoveries corroborate the evidence of early Chinese explorers to visit the district by immigrants from the Punjab about 200 n.c. This district must have been deserted before the fourth century, as there were no signs of writing on paper, which became common in Turkestan at that date."

In the autumn of 1899 Mr. Douglas W. Freshfield with several companions made a journey to the Himalayas to examine the glaciers of Kangchenjunga. The journey occupied in all seven weeks, during which the party ascended and descended 75,000 feet, or 14 miles up and 14 miles down. They covered twenty-four days between Lachen and Khunza without meeting inhabitants, twenty days without seeing trees, and they were wholly dependent on the provisions they carried with them, except for a few contributions from their sportsmen. Following is a report of his description of the glaciers: "He remarked his audience that Kangchengjen was a mountain, 28,156 feet high. It was therefore the third highest measured mountain on the face of the globe, and was nearly 400 miles north of Calcutta. It formed the culminating point of a group which rose on the confines of Tibet, Nepal, and Sikimm. The Kangchenjunga group was completely cut off by the Khosi valley on
the west from the mountains of Nepal, and by the Teesta valley on the east from the moun-
tains of Bhutan. The object of the mission, which
united it to the Tibetan highlands, it was just
possible to get round the mountain without
trenching on any territory which was officially
recognized as Tibetan. Mr. Freyfied said his
object was to make the high-level tour of Kang-
chenjunga, and to pass as near the great moun-
tain as possible. That had never been accom-
plished by Europeans.

"Taking into account secondary glaciers, the area
covered by snow and ice in the group, ac-
cepting the 24,000 peak north of the Jonsong La
as its northern limit, might be estimated at 380
square miles. As to the most notable peculiar-
ties of Sikkim glaciers, the transformation of
snow into something like glacier ice took place
within a few hundred feet of the final ridge of
Kangchenjunga. Such néré was found there as
in similar positions on the Jungfrau in the Swiss
Alps. In the upper ice-falls the ice was apt to
assimilate a strange character. He described it
by comparing it to the earth pillars found in
certain friable soils. The glacier was converted,
not into Alpine névéts, towers, and ridges sev-
eral feet thick, but into one set of lumps, found
clusters of ice-cones, repeating the same
form monotonously."

AFRICA—From an article by Rev. George
Grant, The People of the Congo as a Waterway
it is learned that there are more than 100 steamers
plying there. The river affords a whole available
waterway of more than 6,000 miles. Leopoldville
and Stanleyville are the two largest ports, though
smaller than Boma, the capital; twenty-five years
ago they were unknown native villages. They
are starting-points for the fleet of the more than
100 steamers that have been carried in plates and
sections beyond the cataracts and reconstructed
there. They are of all sizes, from small open
launches to crafts carrying 200 to 300 tons.

GERMAN EVANGELICAL CHURCH.

The German Evangelical Synod of North Amer-
ica was formed in Missouri in 1840 by 6 minis-
ters, who were performing missionary work
among the German settlers, and who had been
attached in their native land to the Evangelical,
the state Church of Prussia. Other religious
bodies which had originated under similar cir-
cumstances in Ohio, the East, and the Northwest
were united with it in 1850, 1860, and 1872. It
had in 1901, according to the reports made to
the General Synod which met in St. Louis, Mo.,
in that year, in 17 district synods, 922 ministers,
1,153 congregations, with 203,574 communicant
members, 10,144 teachers, and 100,177 children
in Sunday-schools, and 486 parochial schools;
and the aggregate of contributions for the propa-
gation of the Gospel was returned at $53,660.
The lists of pastors and congregations published in
the Evangelischer Kalender for 1893 give the
numbers of 27 pastors and 20 congregations addi-
tional to those given in the Kalender for the
previous year. Recognizing the Holy Scriptures
as the only authoritative standard of faith and
practice, this Church accepts the Lutheran stand-
ards and the Heidelberg Confession as interpre-
tations of them so far as those declarations agree,
and where they differ leaves the Bible passages
to be interpreted by the common sense of the be-
liever. The home mission work of the Church
was placed by the General Synod of 1901 under
the care of a separate board. During the three years
the General Synod 63 mission parishes had been ac-
sisted, 29 of which had become self-supporting.
Between $10,000 and $12,000 were contributed for
these missions in 1899. The board, which re-
ported to the meeting of the board in August,
amounted to $28,936. The foreign mission in
India, under the care of the foreign mission board,
returned 7 missionaries and 8 women, with na-
tive teachers, catechists, etc., making a total mis-
sionary force of 79 persons. The mission in-
cluded 4 principal stations, with 2,002 commu-
nicants and 5,251 members in all. The contribu-
tions of the last three years to this work had
been more liberal than those of any previous
term. The amount contributed for 1901 had
been $15,860, which, with a surplus of $12,296 at
the beginning of the year, had given $28,156 to
be at the disposal of the board; while the expendi-
ture had been $10,943. At the beginning of 1902
the surplus had been reduced to $8,202. An im-
migrant mission was maintained in Baltimore,
Md., and cooperated with the German emigrant
mission in Bremen. The principal educational in-
stitutions of the church were the German Union
University, at Elmhurst, Ill., and Eden College and Theological
Seminary, St. Louis, Mo. Other benevolent insti-
tutions are a deaconess house in St. Louis, 2
orphan houses, and a theological seminary. Eden
Publishing House, St. Louis, Mo., supplies
literature for the Church in the German and
English languages. Formerly the German lan-
guage was used in the synodical meetings of the
Church, but the membership has be-

GEORGIA. (See under UNITED STATES.)

GERMANY, an empire in central Europe,
composed of the federated German states, which,
in the terms of the Constitution of April 16,
1871, form an eternal union for the protection of
the realm and the care of the welfare of the
German people. The king of Prussia as German
Emperor has supreme direction of the military
and political affairs of the empire. There are
2 legislative bodies with concurrent powers—the
Bundestagh, composed of representatives of the
federated states, and the Reichstag, representing
the German people. Acts on which they agree be-
come law on receiving the assent of the Emperor,
countersigned by the Chancellor of the Empire.
The Bundestagh has 58 members, appointed by
the governments of the federated states. The
Reichstag has 397 members, 1 to 131,604 of popu-
lation, elected by universal manhood suffrage and
by vote of 2 and 3, the Grand Duchy of Baden by
7, the Grand Duchy of Mecklenburg-Schwerin by
2 and 3, the Grand Duchy of Saxony by 4 and 23,
the Kingdom of Wurttemberg by 4 and 17, the Grand
Duchy of Baden by 3 and 14, the Grand Duchy of
By 6 and 48 respectively, the Kingdom of
Saxony by 4 and 23, the Kingdom of Wurttemberg
by 4 and 17, the Grand Duchy of Baden by 3 and
14, the Grand Duchy of Mecklenburg-Schwerin by
2 and 6, the Grand Duchy of Saxony by 1 and 23,
the Grand Duchy of Mecklenburg-Strelitz by 1
that had passed in the previous meeting of the
General Synod 63 mission parishes had been ac-
s
of Saxæ-Meiningen by 1 and 2, the Duchy of Saxæ-Altenburg by 1 and 1, the Duchy of Saxæ-Coburg-Gotha by 1 and 2, the Duchy of Anhalt by 1 and 2, the Principality of Schwarzburg-Sondershausen by 1 and 1, the Principality of Schwarzburg-Rudolstadt by 1 and 1, the Principality of Waldeck by 1 and 1, the Principality of Reuss-Greiz, or Reuss of the elder line, by 1 and 1, the Principality of Reuss-Schleiz, or Reuss of the younger line, by 1, the Principality of Schaumburg-Lippe by 1 and 1, the Principality of Lippe by 1 and 1, the free city of Lippe by 1, and the free city of Bremen by 1 and 1, the free city of Hamburg by 1 and 3, the Reichsland of Alasse-Lorraine by 4 commissioners of the Statthalter in the Bundesrath who have no votes and 15 Deputies in the Reichstag. The Bundesrath and the Reichstag are elected together annually by the Emperor, who with the concurrence of the Bundesrat can prorogue the Reichstag, but not without its consent for longer than thirty days or dissolve it, in cases in which new elections must take place within sixty days and a new session must begin within ninety days. The imperial ministers act independently of each other, but the Imperial Chancellor is the chief of the imperial civil administration.

The reigning Emperor is Wilhelm II, born Jan. 27, 1859, eldest son of Friedrich III of Prussia and Friedrich I of Germany, eldest son and successor of the first German Emperor. Wilhelm II succeeded his father on March 9, 1888. The heir apparent is Prince Friedrich Wilhelm, Crown Prince of the German Empire and of Prussia, born June 6, 1882, eldest son of the Emperor and the Queen-Empress Victoria, who was a princess of Schleswig-Holstein-Sonderburg-Augustenburg. The Chancellor of the Empire was Graf von Bülow in the beginning of 1902, who succeeded Prince Hohenlohe-Schillingsfürst on Oct. 17, 1900. The following were the secretaries of state at the head of the several departments: Minister of Foreign Affairs, von Riechhofen; Minister of the Interior and Representative of the Chancellor, Graf von Posadowsky-Wehner; Secretary of State for the Imperial Marine, Vice-Admiral von Tüptz; Minister of Justice, Dr. A. Niesing; President of the Imperial Railroad Office, Dr. Schulz; President of the Court of Accounts, Herr Magdeburg; President of the Invalid Fund Administration, Dr. Rössing; Secretary of State for the Post-Office, Herr Krütke; Secretary of State for the Imperial Treasury, Baron von Thielmann; President of the Imperial Bank, Dr. Koch. The Emperor can not veto laws passed by both the Bundesrath and the Reichstag. By the Prussian Constitution no bill can become law unless approved by the King. The King nomimates the ministers, and they hold office during his pleasure. The legislative bodies in Prussia are the Herrenhaus, or House of Lords, and the Abgeordnetenhaus, or House of Deputies. To the Herrenhaus belong the princes of the House of Hohenzollern, 12 lords of medi- sexualized princely houses, 50 territorial nobles, life peers chosen by the King from great landowners and manufacturers and men appointed for their national nobility, 88 representatives elected by landowners of the old Prussian provinces, representatives of universities, heads of chapters, burgomasters of towns of over 50,000 inhabitants, and an appointed number of peer nominated by the King for life or for a term of years. The Abgeordnetenhaus contains 433 members, elected for five years by electors, one-third of them chosen by the wealthiest third by the intermediary, and one-third by the poorest class of direct taxpayers, each of which contributes one-third of the total amount of direct taxes. The ministry of state at the beginning of 1902 is composed as follows: President of the Council of Ministers, the Imperial Chancellor, Graf von Bülow; Minister of Finance, Baron von Rhein- haben; Minister of War, Herr Thienen; Minister of Worship, Instruction, and Medical Affairs, Dr. Studt; Minister of Agriculture, Domains, and Forests, Herr von Podbielski; Minister of Justice, Dr. Schönbred; Minister of the Interior, Baron von Hammerstein; Minister of Commerce, Herr Möller; Minister of War, Gen. von Goslar.

Area and Population.—The area of the German Empire is 208,830, and the population, according to the census of Dec. 1, 1900, was 56,367,- 178, compared with 52,279,901 on Dec. 2, 1895. The area and population of the provinces of Prussia are given in the following table:

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<th>Province</th>
<th>Square miles</th>
<th>1895</th>
<th>1900</th>
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</thead>
<tbody>
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<td>Hohenzollern</td>
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<td>66,768</td>
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<td>194,008</td>
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The Prussian population was divided into 16,971,456 males and 17,501,084 females, 103,12 female to every 100 males. The town population, 14,444,221, showed an increase of 2.29 per cent. in five years; the country population, 19,924,806, showed an increase of 1.08 per cent. The number of marriages in Prussia during 1899 was 287,408; of births, 1,265,923; of deaths, 761, 050; excess of births, 504,873. During 1899 the emigration over sea from Prussia was 12,471. In 1899 the total was 13,747, of whom 1,548 emigrated from Brandenburg and Berlin, 2,293 from Posen, 1,744 from Hannover, 1,449 from West Prussia, 900 from Schleswig-Holstein, 853 from the Rhine Province, 830 from Pomerania, 605 from Hesse-Nassau, 557 from Westphalia, 585 from Silesia, 494 from East Prussia, 465 from Saxony, and 14 from Hohenzollern. Berlin had 1,901,567 inhabitants on Dec. 31, 1901.

Bavaria, with an area of 29,286 square miles, had a population in 1900 of 6,175,155, compared with 6,180,444 in 1895. The population in 1900 comprised 3,027,903 males and 3,148,096 females. The number of marriages in 1899 was 50,783; of births, 230,809; of deaths, 164,165; excess of births, 76,644. The emigration over sea in 1900 was 2,074, compared with 2,140 in 1899.

The Kingdom of Saxony, with an area of 5,787 square miles, had 4,198,788 inhabitants on Dec. 1, 1900, compared with 4,274,790 in 1899. There were 2,042,457 males and 2,157,321 females in 1900, a ratio of 105.6 females to 100 males. Of the population in 1900, the proportion living in towns was 50.6 per cent. The number of marriages in 1899 was 50,706; of births, 50,706; of deaths, 164,165; excess of births, 76,644. The emigration over sea in 1900 was 2,074, compared with 2,140 in 1899.

Württemberg has an area of 7,503 square miles, and had on Dec. 1, 1900, a population of 2,169,
434, it having increased from 2,081,151 in 1895, an average of 0.81 per cent. per annum. The number of marriages in 1900 was 17,102; of births, 76,637; of deaths, 49,119; excess of births, 26,518. The emigration in 1900 was 1,160, compared with 1,250 in 1895. The area of Baden is 5,823 square miles. The population in 1900 was 1,866,584, against 1,725,464 in 1895, which shows an increase of 1.585 per cent. per annum. There were 925,070 males and 940,514 females in 1900, being 101.65 females to 100 males. The number of marriages in 1900 was 15,491; of births, 65,261; of deaths, 43,277; excess of births, 21,984.

The Grand Duchy of Hesse in 1900, with an area of 2,906 square miles, had 1,119,893 inhabitants, 558,240 males and 561,653 females, the increase over 1,039,020 in 1898 being at the rate of 1.56 per cent. per annum. There were 19,671 marriages, 36,848 births, and 22,100 deaths in 1900; excess of births, 14,748.

The Grand Duchy of Mecklenburg-Schwerin has an area of 8,135 square miles. The population in 1900 was 607,883, against 597,436 in 1895. There were 300,419 males and 307,416 females, 102.3 females to 100 males. The number of emigrants to the ocean in 1900 was 185, against 231 in 1899.

The Grand Duchy of Saxe-Wiezmar has an area of 1,388 square miles. The population in 1900 was 382,018, composed of 174,590 males and 157,368 females. In 1895 the total population was 330,217. The number of marriages in 1900 was 3,051; of births, 12,322; of deaths, 3,969; excess of births, 5,323; emigration, 86, against 20 in 1899.

The Grand Duchy of Mecklenburg-Strelitz, having an area of 1,131 square miles, had in 1900 a population of 102,628, composed of 50,080 males and 51,638 females. The population in 1890 was 101,540. The number of marriages in 1890 was 799; of births, 3,103; of deaths, 2,324; excess of births, 779; emigration, 12 in 1900, against 21 in 1899.

Oldenburg, including the principalities of Lübeck and Birkenfeld, with an area of 2,478 square miles, had in 1900 a population of 433,189, composed of 219,307 males and 209,862 females, against a total of 373,739 in 1895. The number of marriages in 1900 was 3,422; of births, 14,312; of deaths, 9,031; excess of births, 5,281; emigration, 209 in 1899 and 255 in 1900.

Brunswick, which has an area of 1,424 square miles, increased in population at a rate per annum of 1.39 per cent. from 434,213 in 1895 to 464,333 in 1900, divided into 230,288 males and 234,045 females. There were 4,066 marriages, 15,042 births, and 9,235 deaths in 1900; excess of births, 5,807; emigration over sea, 112 in 1899 and 68 in 1900.

The Duchy of Saxe-Meiningen, with an area of 953 square miles, had 234,005 inhabitants in 1895 and 250,093 in 1900, divided into 123,227 males and 127,656 females. The number of marriages in 1899 was 2,185; of births, 8,772; of deaths, 4,309; excess of births, 3,653; emigration, 56 in 1899 and 49 in 1900.

The Duchy of Saxe-Altenburg, having an area of 511 square miles, had 180,313 inhabitants in 1895 and 194,914 in 1900, the latter number composed of 95,796 males and 98,118 females. There were 1,744 marriages, 7,720 births, and 4,831 deaths in 1899; excess of births, 2,889; emigration, 31 in 1899 and 17 in 1900.

The number of the population of 703,736 in the city and 62,611 in the country; total, 766,349, consisting of 375,311 males and 391,228 females, compared with 681,032

Geneva.
in 1805. The population in 1900 included 14,509
foreigners, of whom 3,585 were Austrians, 2,009
Swedes and Norwegians, 1,250 Brit-
ish, 3,240 from other countries of Europe, 1,631
from other parts of the world, and 288 unknown.
There were 6,442 marriages, 22,980 births, and
12,880 deaths in 1900; excess of births, 8,991.
The Reichsland Alsace-Lorraine has an area
of 14,513 square miles. The population in 1900
was 1,719,470, compared with 1,640,986 in 1899. It
consisted of 860,437 males and 830,033 females.
The number of marriages in 1900 was 13,034; of
births, 53,338; of deaths, 38,184; excess of births,
15,154. The number of emigrants over the ocean
was 255 in 1899 and 171 in 1899.
The increase of population for the whole em-
pire between 1895 and 1900 was 4,087,277. The
total number of marriages in 1899 was 471,519;
of births, 2,250,172; of deaths, 795,107. The total emigration in 1900
was 22,309, of whom 1,388 were bound for Eng-
lund, 19,703 for the United States, 364 for Brazil,
474 for Argentina, 146 for Africa, 1 for Asia, and 196 for Australia. Of the German
emigrants who embarked at German, Belgian,
and Dutch ports, 11,114 were males and 9,227
females, making a total of 20,341, comprising 8,367 individua-
tals. The total number of emigrants who embarked at German ports during
1900 was 176,810, of whom 16,990 were Germans and
3,297 were of other nationalities.
The number of Protestants in the empire in 1900
was 35,231,104, having increased from 31,028,810 in
1890, or 13.6 per cent.; the number of Roman Catholic
and other Christians decreased from 17,674,921
to 20,237,913, or 15 per cent.; the Jews in-
creased from 567,884 to 586,948, only 3.4 per cent.
The number of Protestants per 1,000 is 265; of
Catholics, 361; of Jews, 10; of members of other
creedsc, unreported.

Finances.—The ordinary revenue for the year
ending March 31, 1902, was estimated at 2,105,
226,000 marks, and extraordinary revenue at 206,
634,000 marks; total revenue, 2,311,923,000 marks.
The ordinary expenditure was estimated in the budget at 1,914,923,000 marks, and
extraordinary expenditure at 429,069,000 marks; total, 2,344,064,000 marks. Of the ordinary revenue
excise customs and excise receipts were estimated at 810,331,000 marks and stamp-duties at
114,929,000 marks, together 925,359,000 marks; re-
cieives from telegraphs and telephones were estimated at 420,163,000 marks; from the print-
office, 7,777,000 marks; from railroads, 93,575,
000 marks; from the Bank of the Empire, 14,714,
000 marks; receipts of various departments, 26,465,000 marks; interest of the invalid fund, 30,
440,000 marks; various receipts, 390,000 marks;
matriculal contributions of the states, 570,935,000 marks; other contributions, 16,409,000 marks. Of the matriculal contributions, Prussia was required
to pay 349,735,000 marks; Bavaria, 61,933,000 marks; Saxony, 42,672,000 marks; Württemberg, 21,513,000 marks; Hessen, 18,944,000 marks; Saxony, 11,368,000 marks; Mecklenburg-Schwerin, 6,146,
000 marks; Saxe-Weimar, 3,071,000 marks; Mecklenburg-Strelitz, 1,037,000 marks; Olden-
burg, 6,941,000 marks; Brunswick, 4,708,000 marks; Saxe-Meiningen, 2,543,000 marks; Saxe-
Altenburg, 1,071,000 marks; Saxe-Coburg-Gotha, 2,327,000 marks; Anhalt, 3,298,000 marks; Schwarzburg-Sondershausen, 1,810,800 marks; Schwarzburg-Rudolstadt, 928,000 marks; Wal-
deck, 585,000 marks; Reuss of the senior line, 690,000 marks; Reuss of the junior line, 1,408,000
marks; Schleswig-Holstein, 4,708,000 marks; Lippe, 1,409,000 marks; Lübeck, 986,000 marks; Bremen,
2,287,000 marks; Hamburg, 7,515,000 marks; Alsace-Lorraine, 17,407,000 marks. The matriculal
contributions of the states in proportion to their population; the rate per capita is fixed in each annual budget. Of the ordinary, or recurring, expenditure, 176,000 marks
were for the Reichstag, 22,000 marks for the
Imperial Chancellery, 13,211,000 marks for the
Ministry of Foreign Affairs, 54,575,000 marks for
the Ministry of the Interior, 559,028,000 marks for
the army, 79,896,000 marks for the navy, 2,133,000 marks for the Ministry of Justice, 575,
196,000 marks for the imperial treasury, 394,000
marks for railroads, 88,543,000 marks for the
debt of the empire, 910,000 marks for the audit-
ing office, 70,995,000 marks for the pension fund,
30,456,000 marks for the invalid fund, 364,269,000
marks for posts and telegraphs, 5,014,000 marks
for the printing-office, and 45,015,000 marks for
railroads. The surplus of the customs, tobacco,
stamp, and spirit duties returned to the states was
570,933,000 marks. The total expenditure on the army, ordinary and extraordinary, amounted to 673,566,000 marks; on the navy, 207,484,000 marks. For the year ending March
31, 1903, the matriculal contributions were in-
creased 24,000,000 marks and a loan of 25,000,000
marks was proposed to balance the estimated
total expenditure, recurring and non-recurring, of
2,349,742,456 marks.
The funded debt of the empire on March
31, 1900, amounted to 2,298,606,000 marks, of which
1,240,000,000 marks consisted of 31-per-cent.
loans, and 1,038,500,000 marks were later loans
paying 5 per cent, which had increased 1,162,000,000
marks since March 31, 1898. There were 120,
000,000 marks of treasury bills outstanding and
120,000,000 marks of paper money. The invalid
fund on March 31, 1896, amounted to 300,067,854
marks, and the Government held a war fund of
120,000,000 marks, hoarded in gold.
The amount of gold coin minted since the begin-
ing of the empire was 3,701,171,400 marks,
of which 39,198,800 marks had been withdrawn
before the end of 1900, leaving 3,661,973,000
marks in circulation. The amount of silver
coined up to the close of 1902 was 2,757,000
marks, of which 28,747,100 marks had been with-
drawn, leaving 530,429,800 marks in circulation.
The amount of nickel coins issued and not re-
called was 63,477,000 marks, and silver coins was
15,403,000 marks, making a total coinage
of 4,282,357,700 marks outstanding. The amount
of bank-notes in circulation was 1,313,
855,000 marks, protected by 889,630,000 marks of
coin and bullion.
The budgets include the contributions of the
states to the common expenditure of the empire. In Alsace-Lorraine there was also an extraordin-
ary revenue of 4,452,454 marks, and an expendi-
ture of 4,909,360 marks. More than half the
revenue comes from customs and excise, and there is
a large expenditure for education. The
expenditure of Anhalt for the empire was
300 marks. The state property was valued at
9,211,830 francs. The whole debt of Baden was
incurred for railroads, and three-quarters of the
Bavarian debt. The debt of Bremen was incurred
for railroads and 400 marks. The budget of
Brunswick does not include the civil list of the
duke, which is 1,125,000 marks, nor the fund
for schools, arts, and sciences, out of which there
was an expenditure of 117,000 marks. The state-
ment of the debt, which was raised for railroads,
does not include an annual payment of 1,219,740 marks, for public works, which will be extinguished in 1924. The property of the state in domains and forests and in funds is valued at 40,000,000 marks, not including an annuity of 2,580,000 marks to be paid till 1932 for the railroads, which were turned over to the German Government. The debt of Hamburg, contracted for public works, required the payment of 15,485,600 marks in 1901, and for education 10,361,944 marks were spent. To meet these heavy charges an income tax is levied that amounts to 30 marks per capita.

The debt of Hesse, contracted for railroads which return a profit, is no burden, and taxation is light in this grand duchy, which possesses valuable domains. In Lübeck half the revenue is derived from direct taxation, and the rest mainly from interest, domains, and railroads. In Mecklenburg-Schwerin, apart from the budget of common expenses of the Grand Duke and the states, the Grand Duke has a separate income of 22,825,000 marks, which is largely devoted to public purposes. The state railroads and interest on invested funds more than defray the debt charge. The accounts of Mecklenburg-Schwerin are not published. The estimates of the Prussian revenue for the year ending March 31, 1902, were 99,135,424 marks from domains, 213,166,300 marks from direct taxes, 87,304,000 marks from indirect taxes, 88,262,500 marks from the lottery, 1,743,900 marks from the Marine Bank, 554,500 marks from the mint, 192,316,080 marks from mines, furnaces, and salt-works, 1,442,925,339 marks from railroads, 391,039,565 marks from the finance administration, and 134,166,578 marks from the state administration. The expenditures were estimated at 45,633,470 marks for agriculture, domains, and forests, 131,800,200 marks for finance, 158,522,050 marks for the administration of mines, furnaces, and salt-works, 875,678,380 marks for the administration of railroads, 8,000,000 marks for the Crown domain, 2,174,018,978 marks for the sinking-fund of the debt, 1,403,230 marks for annual interest on 250,815 marks, 1,675,515 marks for the Chamber of Deputies, 348,368,083 marks for matriculation contribution to imperial expenditure, 93,822,136 marks for appearance, 93,758,000 marks for the Ministry of State, 553,800 marks for the Ministry of Foreign Affairs, 104,794,908 marks for the Ministry of Finance, 31,822,938 marks for the Ministry of Public Works, 12,584,541 marks for the Ministry of Commerce and Industry, 115,000,358 marks for the Ministry of Justice, 72,960,586 marks for the Ministry of the Interior, 24,220,282 marks for the Ministry of Agriculture, Domains, and Forests, 145,152,437 marks for the Ministry of Public Worship and Instruction, 139,058 marks for the Ministry of War, and 217,533,904 marks for extraordinary expenditure. The public debt of Prussia consists of 5,600,400,000 marks of consolidated debt paying 3½ per cent. interest, 977,367,400 marks paying 3 per cent., 119,945,230 marks of railroad debt, and 5,128,907 marks of debts assumed on the annexation of provinces. Saxe-Altenburg had in 1901 funds amounting to 5,002,058 marks, and two-thirds of its revenue was derived from domains. Saxe-Coburg and Gotha have separate legislative chambers and separate budgets. The domain revenue of Coburg in 1902 was 444,575 marks, and expenditure 290,800 marks; the domain revenue of Gotha was 1,044,100 marks, and expenditure the same; the domain revenue of Gotha was 1,533,500 marks, and expenditure 1,179,100 marks; the state revenue of Gotha was 2,329,880 marks; the common revenue of the two duchies was 3,097,430 marks, and expenditure 3,757,630 marks. The debt of Coburg was 2,269,000 marks, and expenditure 498,000 marks. A third of the revenue of Saxe-Meiningen is derived from domains, and most of the debt has been incurred for profitable public works. Domains and investments of Meiningen and Weimar. The revenue and expenditure of Saxony as stated does not include an extraordinary revenue of 115,783,186 marks, which was expended on public works. The whole debt of this kingdom was incurred for railroads, telegraphs, and other public works, the Government having invested 967,206,084 marks in railroads alone. From the railroads and from domains and forests is derived more than half of the state revenue. In Württemberg a third of the revenue is derived from forests, farms, mines, furnaces, and salt-works, and the railroads, posts, and telegraphs. The state revenue of Württemberg is 75,500,000 marks, and expenditure 68,000,000 marks. A third of the revenue was incurred mainly from railroads, the net income from which amounts to 92 per cent. of the interest of the whole debt.

The sum of annual revenues of all the German states is estimated at 4,292,000,000 marks, including 138,000,000 marks of extraordinary revenue. Their combined expenditure is estimated at 4,316,000,000 marks, including 105,000,000 marks of extraordinary expenditure. The empire and the federated states together raise an annual revenue of 6,720,000,000 marks, including 344,000,000 marks from extraordinary sources, and their combined expenditure amounts to 6,366,000,000 marks, including 381,000,000 marks for extraordinary purposes. The indebtedness of the federated states amounts to 10,987,000,000 marks. Including the debt of the federal finance, the annual cost of interest, amortization, and administration is 9.57 marks per capita.

### The Army

The peace strength of the German army in 1901 was as follows: 216 regiments of infantry, numbering 1,976,425 officers and men; 18 battalions of rifles, numbering 388 officers and men; 5 machine-gun divisions, numbering 15 officers and 335 men; 215 horsemen; 293 dismounted officers and men, 6,782 men; 2,556 surgeons and pay-
masters; 93 regiments of cavalry, numbering 2,433 officers and 66,849 men, with 65,789 horses; 825 cavalrymen in special service; 94 regiments in field-artillery, numbering 3,060 officers and 65,260 men, with 33,383 horses, forming 494 field-batteries, of which 47 are mounted, each of 4 guns, except the batteries attached to infantry divisions, which have the war complement of 6 guns; 996 artillery in special services; 18 regiments of foot-artillery, numbering 555 officers and 22,977 men, with 46,150 horses; 137 foot-artillery in special services; 26 battalions of pioneers, numbering 595 officers and 15,419 men; 103 pioneers in special services; 3 railroad regiments, 1 railroad battalion, 2 balloon detachments, and 2 railroad companies, numbering altogether 251 officers and 6,417 men; 49 railroad troops in special services; 23 battalions of train, numbering 351 officers and 6,450 men, with 665 horses in special train services; 558 officers and 4,957 men in special formations; and 2,629 non-regimental officers, with 360 men, total, 24,415 officers and 10,023 men with 10,485 horses. There are besides about 8,000 volunteers for one year, who serve at their own expense. The infantry battalion, which contains 544 men in time of peace, is increased to 1,002 in war time by calling out the reserves. The Prussian guards and the regiments garrisoned in Alsace-Lorraine have 686 men in each battalion on the peace footing. In time of peace 3 regiments of rifles, 2 regiments a brigade, 2 brigades a division, to which are attached 4 squadrons of cavalry, 4 batteries, and 1 battalion of rifles or of pioneers; and 2 infantry regiments, with 1 gun, 14 regiments of cavalry, to which 2 batteries of horse-artillery are attached, and 6 field-batteries and 1 mounted battery of artillery form an army corps. There are 23 army corps, each of which is organized and equipped so as to be able to take the field as an independent army.

The Navy.—The German navy in the beginning of 1902 comprised 10 first-class battle-ships, 5 of the second class, 2 armored cruisers, 8 old battle-ships, 10 coast-defense ironclads, 16 protected cruisers, 7 torpedo-gunboats, 27 destroyers, and 47 first-class and 96 second-class torpedo-boats. There were building 2 battle-ships as armored cruiser, 1 coast-defense vessel, 2 armored cruisers, and 16 destroyers. The Wittelsbach, Mecklenburg, Zahringen, Wettin, and Schwaben, of 14,000 tons, were now under the construction for the reserve service, and 2 battle-ships; yet they have no large guns, but only quick-firers, 4 9.4-inch, 18 6-inch, 12 3.4-inch, and numerous smaller ones. Their engines of 13,000 horse-power can make 18 knots. Their hulls are protected with 10-inch Krupp armor, and most of their guns are placed in armored batteries amidships. Two new ships that have been ordered will carry 4 11-inch and 18 6.7-inch guns. The armored cruiser Prinz Heinrich, launched in 1900, has a displacement of 8,868 tons, is protected on the sides with 6-inch armors, carries 2 9.4-inch guns and 4 5.9-inch quick-firers, has engines of 14,000 horse-power and can make 19 knots. The Kaiser Wilhelm der Grosse, Kaiser Barbarossa, and Kaiser Karl der Grosse, launched in 1899 and 1900, of 11,180 tons, have 11.4-inch armor, 8 4.8-inch quick-firers, and have engines of 13,000 horse-power capable of making 18 knots. The new battle-ships of 1903, 10,000 tons, with 4-inch deck armor, a speed of 18½ knots with engines of 10,000 horse-power, and an armament of 2 12-inch, 8 6.7-inch, and 10 3.4-inch quick-firers. The first three, with engines of 6,000 horse-power, can steam 19½ knots; the others, with engines of 7,000 horse-power, are able to make 21 knots. Others of this class are to be built strong enough, with 2,715 tons displacement, to hold engines that can make 24 knots. In German vessels guns are mounted in every available spot, and the aim is to concentrate the heaviest possible fire on the enemy. In the later vessels more attention is paid to gun protection, which is secured by armored casemates. The newer ships carry in their secondary batteries 6.7-inch quick-firing guns of the model adopted in 1901. A converted section of the torpedo fleet has been studied more than in any other navy and very difficult maneuvers are practised. The Government subsidizes 7 fast liners of the Hamburg and Americana. German Lloyd companies in order that they shall be held in readiness to act as auxiliary cruisers in case of war. The maritime population of the German empire amounts to 15,000,000, and the navy owes service in the navy. Inducements are held out to capable and experienced sailors to volunteer; and the navy does not lack recruits of such material. Besides, the German sailors employed in the merchant fleet and 6,000 in the merchant service of other countries, there are 26,000 fishermen and others available for the navy. The naval proposal made in 1902 contemplated a fleet of 2 double squadrons, each composed of 16 battle-ships, 8 large cruisers, and 24 small cruisers, for service in home waters, in addition to which there should be 8 large and 15 small cruisers for service in foreign waters, and a reserve of 4 battle-ships and 4 large and 6 small cruisers; but owing to the opposition of the Center the number of vessels for foreign service was reduced to 3 large and 10 small cruisers, and the reserve to 4 battle-ships and 3 large and 4 small cruisers. The bill provided that 2 battle-ships and 1 large and 3 small cruisers should be begun every year till 1905. In 1902 an addition to the law of 1900 was announced, to be laid before the Reichstag in 1904, which will allow for the construction of a greater number of vessels for large and small battle-ships, and for recurrent expenditure in order to put the new ships into commission.

Commerce and Production.—The production of wheat in 1901 from 2,049,160 hectares was 3,841,105 metric tons; of rye from 5,054,973 hectares, 8,550,659 tons; of barley from 1,670,033 hectares, 3,002,182 tons; of oats from 4,122,818 hectares, 7,081,350 tons; of potatoes from 3,218,777 hectares, 40,585,317 tons; of hay from 5,912,122 hectares, 23,116,276 tons. Vineyards covered 119,240 hectares. The area under hops was 57,191 hectares. The number of agricultural holdings in 1895 was 5,558,317, covering 43,284,742 hectares, supporting 18,088,603 persons, the number of workers being 8,156,045. The number of horses in Germany on Dec. 1, 1900, was 4,134,099; of cattle, 10,001,106; of sheep, 9,672,143; of hogs, 16,758,436. In Prussia there were 2,915,003 horses, 10,865,260 cattle, 6,989,430 sheep, and 10,054,092 hogs; of potatoes 4,114,099,097, of 3,550,089 cattle, 748,470 sheep, and 1,736,761 hogs; in Saxony 166,713 horses, 687,887 cattle, 74,518 sheep, and 576,825 hogs; in Alaco-Lorraine, 142,878 horses, 901,840 cattle, and 340,936 hogs; in Württemberg, 112,159
horses, 1,017,683 cattle, 315,965 sheep, and 512,485 goats. The crops included 43,268,000 bushels of export corn, 222,157,000 marks, and exports 286,218,000 marks; imports of fats and oils were 359,358,000 marks, and exports 30,630,000 marks; imports of chemicals, drugs, and colors were valued at 76,500,000 marks, and exports 397,017,000 marks; imports of stone, clay, and glass were 90,715,000 marks, and exports 201,635,000 marks; imports of metals and metal goods were 768,216,000 marks, and exports 783,282,000 marks; imports of wood and wood manufactures were 337,275,000 marks, and exports 169,582,000 marks; imports of paper and paper manufactures were 115,000,000 marks, and exports 131,350,000 marks; imports of textile materials and manufactures were 1,273,311,000 marks, and exports 1,068,750,000 marks; imports of leather and leather manufactures were valued at 281,400,000 marks, and exports 266,593,000 marks; imports of rubber and rubber goods were 86,368,000 marks, and exports 64,775,000 marks; imports of railroad materials and rolling stock were valued at 4,015,000 marks, exports 3,885,000 marks; imports of hardware, etc., were 27,713,000 marks, and exports 103,603,000 marks; imports of books and works of art were 44,292,000 marks, and exports 57,975,000,000 marks; exports of coal were 10,746,000 marks in value. The total value of dutiable imports was 2,961,207,000 marks, paying in duties 521,115,000 marks, an average rate of 17.9 per cent.; value of imports free of duty, 3,061,785,000 marks. The imports of horses, pigs, and mutton and vitriol and chemical manufactures were 37,900,000 marks, valued at 13,215,000 marks. The total value of cotton goods and products became 701,043,000 marks. The production of manufactured iron in 1899 was 9,309,402 tons, value 1,353,985,000 marks. There were 268,571 men employed in the iron and steel manufactures, and 452,350 in the coal-mines. The imports of iron and iron manufactures in 1901 were 382,455 tons less, and those of machinery, tools, and vehicles 37,901 tons less than in 1900, whereas exports increased respectively 798,683 and 6,188 tons. The number of boats engaged in the North Sea fisheries in 1900 was 641, of 35,651 tons, with 3,547 men in them. In the year 3,050,000 marks in value, while 25,867,000 marks' worth of fresh fish, 38,016,000 tons' worth of salt herrings, and 8,476,000 tons' worth of other salt and dried fish, were imported. There were 390 sugar factories in 1899, which consumed 12,439,301 metric tons of beet-roots, producing 1,601,258 tons of raw sugar and 307,133 tons of molasses. The production of refined sugar in 1900 was 1,215,205 tons. In 28 starch factories were produced 8,681 tons of dry sugar, 35,905 tons of rice, and 4,976 tons of color. The production of beer in 1899 was 69,290,000 hectoliters, of which 49,290,000 hectoliters were brewed in the imperial excise district, 17,739,000 hectoliters in Bavaria, 4,125,000 hectoliters in Württemberg, 3,050,000 hectoliters in Baden, and 1,125,000 hectoliters in Alsace-Lorraine. There were 59,024 distilleries in 1900, which produced 3,607,820 hectoliters of alcohol. The total value of special imports in 1901 was 5,967,017,000 marks, and of special exports 4,750,407,000 marks. In 1900 the value of imports in the special trade was 6,042,592,000 marks, and the value of exports 4,750,407,000 marks. The imports of live animals in 1900 were 178,443,000 marks in value, and exports 21,114,000 marks; imports of animal products were 211,065,000 marks in value, and exports 41,547,000 marks; imports of articles of consumption were 1,584,420,000 marks, and exports 496,467,000 marks; imports of seeds and plants were 66,925,000 marks, and exports 222,157,000 marks, and exports 286,218,000 marks; imports of fats and oils were 359,358,000 marks, and exports 30,630,000 marks; imports of chemicals, drugs, and colors were valued at 76,500,000 marks, and exports 397,017,000 marks; imports of stone, clay, and glass were 90,715,000 marks, and exports 201,635,000 marks; imports of metals and metal goods were 768,216,000 marks, and exports 783,282,000 marks; imports of wood and wood manufactures were 337,275,000 marks, and exports 169,582,000 marks; imports of paper and paper manufactures were 115,000,000 marks, and exports 131,350,000 marks; imports of textile materials and manufactures were 1,273,311,000 marks, and exports 1,068,750,000 marks; imports of leather and leather manufactures were valued at 281,400,000 marks, and exports 266,593,000 marks; imports of rubber and rubber goods were 86,368,000 marks, and exports 64,775,000 marks; imports of railroad materials and rolling stock were valued at 4,015,000 marks, exports 3,885,000 marks; imports of hardware, etc., were 27,713,000 marks, and exports 103,603,000 marks; imports of books and works of art were 44,292,000 marks, and exports 57,975,000,000 marks; exports of coal were 10,746,000 marks in value. 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The imperial post-office in 1900 carried 1,008,666,802 letters, 920,544,518 postal cards, 855,972,346 pieces of printed matter, 4,778,681 newspapers, papers, 56,295,366 samples, and 1,161,782,015 newspapers, and the amount of money remittances was 25,633,687,953 marks; receipts, 384,542,906 marks; expenses, 392,790,152 marks. The Bavarian post-office traffic was 173,754,930 letters, 59,969,440 postal cards, 72,827,286 printed enclosures, 198,320 business papers, 4,360,840 samples, 215,400,659 newspapers, and 2,655,235,945 marks of money sent; receipts, 30,277,340 marks; expenses, 32,181,410 marks. The Württemberg post-office handled 64,022,108 letters, 33,823,402 postal cards, 40,694,886 printed enclosures, 118,245 business papers, 1,524,234 samples, 56,443,415 newspapers, and 1,177,623,008 marks of money remittances; receipts amounted to 16,221,888 marks and expenses to 14,215,148 marks.

The total postal traffic of Germany was 1,847,043,900 letters, 1,020,339,360 postal cards, 969,494,520 printed enclosures, 5,983,430 business papers, 62,623,070 samples, 1,431,706,098 newspapers, and 376,466,576 marks of money sent; the combined receipts of the three postal services were 447,041,824 marks, and expenses 430,013,073 marks.

The length of the telegraph lines in Germany in 1900 was 106,723 kilometers, with 414,992 kilometers of wires, over which 29,801,309 internal and 11,460,473 foreign telegraphs were sent in the same year; the length of the telegraph lines in 1899 was 16,624 kilometers, with 45,923 kilometers of wires, over which 2,580,877 internal and 688,804 foreign messages were transmitted; the lines of Württemberg had a length of 3,294 kilometers with 11,506 kilometers of wires, over which 1,237,333 internal and 230,039 foreign messages were sent; total length of telegraph lines in the empire, 128,315 kilometers, with 472,867 kilometers of wire; total number of despatches, 33,628,510 internal and 12,380,276 foreign. There were in the empire 15,533 towns with telephone communications, having 299,847 exchanges, with 49,295 miles of line and 517,350 miles of wire; the number of conversations in 1900 was 597,423,041. There were 2,797 long-distance circuits, having 10,920 miles of line and 137,665 miles of wire; number of conversations, 39,533,314.

Politics and Legislation.—The principal task of the Reichstag in the section of the continued session which began on Nov. 28, 1901, was to frame a new tariff as a basis for new commercial treaties. The session of the Reichstag began in 1900 and was continued by adjournment. The legislative business was left in such an unfinished state in May, 1901, that the expedient of adjourning instead of closing the session had to be adopted, and on June 11, 1902, the session was again adjourned till Oct. 14. The bills and motions that accumulated retained their precedence, so that there was no opportunity to raise fresh questions, while in some cases the circumstances in which the bills were drafted were altered. The bill to guarantee interest on the cost of a railroad in East Africa from Dar-es-Salam to Mrogoro would be ineffective because the project of raising the money through a financial syndicate had been abandoned owing to the state of the money market. There were 49 motions of private members not yet disposed of. The prolonged session must come to an end within the legislative period of five years, which expires in June, 1903, when a general election takes place. The German spirits bill, a measure favorable to the Agrarians, introduced in 1901, was passed by the chamber. The saccharin bill was another legacy from the previous year and another concess-
sion to the Agrarians, intended as a slight compensation for the abolition of sugar bounties. A more important measure was the lowering of the internal duty on sugar, designed to extend the domestic consumption of sugar by materially lowering its price, and therefore acceptable to Socialists and Radicals as well as to Agrarian Conservatives, who would find in the home market opened to them an outlet for their sugar if the competition of cane-sugar drove it out of the English market. The Government in signing the Brussels convention had no fear that Germany, the greatest sugar-producing country in the world and the most advanced in its methods of production, could not still compete successfully in the world's market; but it did fear that, if it refused to accept the terms that Great Britain offered at Brussels, German sugar would be shut out of England by countervailing duties. Nevertheless, the extreme section of the Agrarians struggled to prevent the ratification of the Brussels convention by the Reichstag. Nearly all the sugar manufacturers were opposed to the treaty. The convention was finally approved on June 11 by 209 votes to 103. The minority consisted of the greater part of the Conservatives and a large section of the Liberal and Social Democrats, while the Radicals gave 110 votes for the convention, which the ordinary supporters of the Government would otherwise have rejected. The sugar cartel was to pay a export tax on sugar from 20 marks per 100 kilograms to 16 marks and abolishes the bounties on exports. The sugar cartel has raised the price about 14 marks to consumers in order to secure an extra profit of 3 to 4 marks for its members. The domestic demand has declined in consequence, but the abolition of bounties will curtail the power of the trust.

The saccharin bill prohibits the production or importation of saccharin except by permission of the Federal Council, which is empowered to license one or more manufacturers or importers subject to constant official inspection and the revocation at any time of their licenses; and the product cannot be sold except by specially licensed persons for medical or scientific purposes only. The existing factories receive compensation at the rate of 6 times their average annual profit, reckoned at 4 marks per kilogram. The German Chancellor is empowered to fix the maximum quantity of saccharin that each licensed factory may produce. The use of saccharin as a cheap substitute for sugar is stopped altogether by this law, but not its use on the prescription of a physician by persons suffering from a disease that is aggravated by the use of sugar. The bill appropriating money for the construction of a railroad in German East Africa was postponed on account of the unfavorable condition of the imperial estimates. A bill to secure liberty of worship to all subjects of the empire was rendered effective by legislative acts in the states where Catholic disabilities and restrictions on worship still existed, as in Mecklenburg and Brunswick.

The Government tariff bill was introduced in the Reichstag on Dec. 2, 1901, referred to a committee of 28 members on Dec. 12, and read in the house on Feb. 28, 1902, after which the committee worked out the measures. High protection has been the fiscal policy of the German Government since 1879, and under it the country has made a wonderful advance in industry, though the amount of immigration is smallest in the period of hard times on rye, barley, and oats. The period concluded by Count von Caprivi. Agriculture has not been generally prosperous, and those who have suffered most are the influential territorial aristocracy of Prussia, who have been receiving favors from the beginning, but not enough to counteract the special disadvantages under which they labor. While the world's competition has lowered the prices of agricultural products the newly developed mines and industries of western Germany have drained away the population of the east and made agricultural labor scarce and dear. The objection of the Agrarians to the canal system, which they defeated three times in the Prussian Chamber, was that it would not only afford cheaper transport for competing foreign products, but would further stimulate the migration of the laboring population. When the new tariff had to be made landowners and farmers in most of the agricultural districts joined in the cry for higher protective duties on imports, so that they could have a share of the prosperity that had come to the industrialists. The Conservative and Clerical parties, which normally support the Government, and the barleymakers, who number and compact organization can also defeat Government measures, were controlled by Agrarian opinion. The National Liberal party contained many Social Democrats, and the Radicals and the Social Democracy were determined to resist the last every schedule in the tariff that would make food still dearer than it already was. The will to the princes and expediency of the Government had adopted during a series of years. Austria-Hungary, Italy, Russia, and other countries that have supplied Germany with food in the past, are deeply concerned in the outcome of the struggle. The people of the United States were interested in the prospects of their food exports to Germany, and also in the question whether dear food would not weaken Germany's industrial competition and start a new emigration of enterprising and skilled Germans to America and drive German capital abroad. Duties on grain, which had not existed for fifteen years, were introduced in the protective tariff of 1879, and were tripled in 1886, but lowered again in 1892, when new commercial treaties were made with Austria, Belgium, Italy, and Switzerland, followed by similar reciprocal agreements with Roumania and Russia. Other countries, excepting Portugal, have favored-nation treaties, the one with the United States having been made by Prussia in 1829. This old treaty has given rise to various disputes with the United States regarding bounties and other evasions, and under it Germany has claimed that the United States can make no reciprocity treaty with any country without extending the same advantages to Germany. When Canada discriminated in favor of Great Britain the German Government applied the autonomous tariff to Canada. The German autonomous tariffs of 1879 and 1887 made the duty on wheat and rye 5 marks per 100 kilos, but the duty since 1892 under the favored-nation clause has been 3.50 marks, and on barley 2 marks. If new reciprocity treaties are not concluded before Dec. 31, 1903, the duties of 1887 would come into force on Jan. 1, 1905, unless the Reichstag adopts a new tariff. The Government proposed as minimum duties, not to be lowered for any country by a reciprocity agreement, 5.50 marks on wheat, rye, 5 marks on rye and oats, and 3 marks on barley. The British tariffs called for 7.50 marks per 100 kilograms on all kinds of grain. The Tariff Committee, by a majority of 17 to 11, adopted the rates of 6 marks on wheat and 5.50 on rye and oats. From Bavaria came a protest against a barley
duty that would destroy the export trade in beer in Germany. The rates on wheat were 6.50 marks on wheat, 6 marks on rye, and 4 marks on barley and oats. The committee adopted the rates of 7.50 marks on wheat and 7 marks on rye, barley, and oats. The tariff scheme did not include maximum and minimum rates for any of the 946 articles excepting cereals. When the scale of duties on grain had been altered against the protests of the ministers by the Tariff Committee, the Government proposed that all the other items should be passed in a lump as a basis of negotiation in making commercial treaties with individual countries. The committee declared that article and that article had placed obstacles in the way of all foreign commerce by requiring a certificate of origin to accompany every invoice, would not yield its consent so long as it went on to impose protective duties on all kinds of vegetables, 2 to 4 marks per 100 kilograms, with the object of killing a large trade with Italy and France for the goods of Germany, and similar duties on flowers, fruits, trees, and plants. While the tariff was under discussion the Prussian Minister of Commerce instituted an inquiry into the number of cartels, their organization, their industrial trusts, and their economic effects in lowering the cost of production, preventing overproduction, and raising or fixing prices. The proposal to erect the coal and iron cartels and then to export iron and steel manufactures was rejected. The coal and iron trades have made an agreement to pay exporters of iron and steel manufactures the whole difference between the price they realize abroad and the current prices in Germany. The cost of production, however, is not to be reduced until the market was glutted with merchandise; yet in the economical use of fuel and material and scientific methods of production, as well as in the cheaperness of goods, German iron manufacturers have an advantage over their competitors. When the Socialists on the Tariff Committee proposed to admit free of duty all kinds of goods not used for rural purposes, in Germany Count Posadowsky promised a thorough investigation into the operations of rings. It is estimated that 300 cartels, syndicates, and combinations are in operation in Germany. To this end, the Reichstag voted to give the Socialists 500,000 marks to pay for the investigations. The proposal to spend within a few years, of which 80 are concerned with trade and 220 with production, including 80 in the metal, 40 in glass and pottery, 30 in the chemical, 20 in the textile, 10 in the coal, 10 in the paper, and 10 in the provision industries. By the rules of the United States Treasury Department import duties on German goods on which a syndicate of manufacturers has paid export duties are assessed on the prices current in the open market in Germany, not on the reduced export prices. Against this method of valuation Ger- many has protested. The Tariff Committee not only raised the proposed duties on live animals from 10 or 12 to 15 marks per 100 kilograms, but insisted that this rate should not be lowered more than 20 per cent. in commercial treaties. The Government duties on horses were 30 to 300 marks; those of the committee vary between 90 and 360 marks. The duty on tea was lowered from 100 to 25 marks. A protective duty was even imposed on milk. The duty on butter and cheese was raised from 20 to 30 marks. The duty on eggs the Agrarians particularly desired. The Parlia- ment showed a deficit of 48,000,000 marks, the income of the Imperial Government having decreased.
a presumption of fault from the point of view of the pecuniary responsibility for the accident. These provisions are also in accordance with Continental laws and contrary to existing British rules. The French distinction between salvage of a derelict and assistance of a crippled ship is abolished in the proposed treaty, with all rules fixing an arbitrary proportion of value due to the salver, such as 33% per cent. of the value of an abandoned vessel which the French code allows. The limitation of ship owners' liability was referred to a new commission. On the motion of Everett P. Wheeler, representing the United States, the proposal that damage and expense sustained by the salver should as of right be made good in case of successful salvage or assistance was stricken from the draft treaty. It was agreed that tribunals of either the home port of the defendant vessel or of the personal domicile of the defendant party should have jurisdiction in cases of collision; in case of a collision in territorial waters the representatives of Austria, Hungary, Japan, Sweden and Norway, and two other nations voted to give jurisdiction to the courts of the country where it takes place, although the vessel may not be arrested there nor either plaintiff or defendant have their domicile there; 5 countries, including England, France, Germany, and the United States, voted in the negative, and the question was reserved for further discussion at a future conference. The registration of compulsion insurance by the courts of the port of where a ship is registered was agreed to by a vote of 9 nations against 4. The question whether the courts of a place where the defendant's vessel was built could have final jurisdiction was decided affirmatively, but the United States representatives were alone in supporting the present American and English practice, which confers jurisdiction on the courts of a country in which a defendant can be served, although he has neither domicile nor residence there. Whether mere residence should suffice was left for further consideration.

Labor Congresses.—The thirteenth International Congress of Miners met at Düsseldorf on May 19, 1902. For the first time the British miners were represented by five persons out of those of the Continental countries. From the Continent there were 72 delegates voting for 748,000 miners. From Great Britain 39 delegates represented 693,000 miners. The British Miners' Federation and 3 represented 80,000 miners of Durham, who still held out against the legal eight-hour day demanded by all other miners. British as well as Continental. The objects of the congresses were defined to be to limit the hours of underground labor from bank to bank; to obtain proper supervision and inspection of mines, including the election of additional inspectors by the workers, such inspectors to be paid by the state; to organize powers to enforce legal enactments; and to devise means to secure just contracts and fair treatment for all persons in or about mines. The Welsh miners desired an eight-hour day, among other reasons, because it would allow short-firing to take place between shifts after an interval sufficient to allow dust to settle after the men had left the mines. German delegates declared that accidents most frequently occurred in Germany when the men were exposed by law to a 10-hour day, but a British delegate described the bill passed by the French Chamber gradually reducing the work-day to eight hours from bank to bank. A Belgian delegate declared that in his country the few legal enactments that existed for the purpose of preventing accidents were not strictly applied. An Austrian delegate was interrupted by a Welsh delegate, who thought that if the rule previously in force allowing but a single German speech to a German and Austrian delegates together were to be disregarded the Welsh and English might speak for the miners of their separate nationalities. The rule which was made because in former congresses the German and Austrian representation combined was comparatively small, was rescinded on the motion of an English delegate. The Austrian then described the new Austrian law which reduces the hours of labor in coal-mines to nine hours a day. The congress voted in favor of a legal eight-hour day, which on the motion of the French delegation applies also to surface workers. In regard to compensation for accidents and old-age pensions, it appeared that miners are worst off in Belgium, where there is no law on the subject and the benefit associations pay only a quarter of the wages in cases of accident and an old-age pension of a quarter of a franc a day. In England the doctors frequently deprive the victim of an accident of the full amount of his insurance on the ground of complication with diseases. German doctors cut down allowances in the same way, and the law has intervened to forbid the practice. The law provided for a daily rate of wages when the man has paid subscriptions to benefit societies to secure that amount of insurance or more. The German law of compulsory insurance restricts miners capacity for earning capacity as the result of an accident. In Austria the miners have only their benefit funds to rely upon, and these are in an insolvent condition. Weagel miners receive from 30 kruizers to a guilder a day until they recover, and if totally incapacitated a pension varying from 80 to 120 guilders a year, for which benefits they have to subscribe from 2 to 5 per cent. of their wages. The French miners are the most favorably treated in case of accidents, since they contribute nothing to the fund, yet after the fourth day receive half-wages. The congress voted unanimously to have compensation laws amended so as to cover all accidents in or about mines, to begin from the day of the injury. It was numerous than those of the Continental countries. From the Congress the governments of all countries should provide pensions for the aged and the British Government extended its sympathy to the French miners in their effort to secure pensions of 2 francs a day after twenty-five years of service, irrespective of age. A resolution that miners in general should vote only for candidates pledged to support the proposals adopted by the International Congress and endeavor to enact them into laws; in default of such candidates the miners should nominate and elect representatives from among themselves. The congress adjourned on May 23.

An International Trade-Union Congress was held at Stuttgart in June. The English delegates agreed with their Continental colleagues in the opinion that, in addition to endeavoring to obtain better wages, it was necessary to direct their attention to politics, and that the amalgamation of the trade-unions with international socialism was only a question of time, although the old-fashioned unions were not yet ready to amalgamate all labor. The thirteenth German Socialist Congress was opened at Munich on Sept. 15. The Bernstein proposals for the revision of the Marxist dogmas on which Social-Democratic programs have been based and the adoption of more practical political
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Aims were once more advanced by their author. The trade-unionists in the congress differed with the advanced Socialists in regard to workmen's insurance and other legislation. The unions, which had their benefit associations before compulsory insurance was introduced, held the opinion that Government should aid workmen by organizing their own labor organizations, and that if unorganized workmen could obtain from the Government the same advantages as those who belonged to labor organizations and accept the interest of the workmen would suffer. Both parties agreed that existing legislation is inadequate. The congress adopted resolutions demanding the extension of insurance to all workmen and the amendment of its administration by the insured, and the contribution to its costs by all classes; the extension of the existing system of accident insurance, the establishment of a board of control composed of officials elected by the workmen and paid by the Government; the improvement of the means of preventing diseases incident to labor, full compensation to families of injured workmen, and the prohibition of the employment of women for four weeks before and after childbirth; and the establishment of insurance for the unemployed and for the widows and orphans of workmen. The Reichstag delegates of the party were instructed to consider the advisability of moving a resolution in the Reichstag in favor of an eight-hour day. The congress resolved to support only candidates for the Reichstag pledged to uphold universal suffrage, to vote against higher import duties on foodstuffs, or any indirect tax on articles destined for the people's consumption, and to support a large navy bill by increasing the burdens of the people. The exclusion of foreign meat was condemned. A resolution was passed recognizing the danger to working men from immediate indulgence in alcohol, but declining to make total abstinence a condition of party membership.

Dependencies. - The possessions and protectorates of Germany, the acquisition of which ceased since 1884, have a total area estimated at 1,027,820 square miles, of which 591,460 miles are in Africa (see East Africa, South Africa, and Volta Area), 200 square miles in Asia, and 96,160 square miles in the Pacific. The Asiatic territory consists of the town, harbor, and district of Kiorouak, occupied by a naval force in November, 1888, and the city of Nanking, leased to Germany by the Chinese Government for a term of ninety-nine years. A protectorate was proclaimed on April 27, 1898. The leased territory has an area of 295 square miles, not including the bay, which is of equal extent. Surrounding the German territory, which has 80,000 inhabitants, is a neutral zone having an area of 2,500 square miles and a population of about 1,200,000. The administration of Kiauchau is under the control of the naval authorities, and at its head is a naval officer, Capt. Trupper in 1902. The estimated expenditure for 1903 is 12,528,000 marks, of which only 300,000 marks are raised by local taxation, 12,168,000 marks being supplied from the imperial treasury. The garrison in 1902 consisted of 2,352 marine infantry and artillery. A harbor is being dredged out and a mole built, 2 miles in length. From Tain-tau, opposite Kiauchau, the Germans are building a railroad to Shantun, which will thence run south to Yenchau, and there meet another railroad to be built in a southwesterly direction from Kiauchau. The railroad will tap the coal-fields of Weihsen and Pashau, within 100 miles of Kiauchau, of which Germans by the treaty have the concession, as well as priority in all other concessions to be granted by Shantung. The railroad was completed to Weihsen in the spring of 1902.

In the Pacific Germany possesses Kaiser Wilhelmsland and the Bismarck Archipelago, proclaimed German protectorates in 1894; the Marshall Islands, occupied in 1885; the Caroline, Palau, and Marianne Islands, purchased from Spain for 16,750,000 marks and transferred on Oct. 1, 1899; part of the Solomon Islands, Choiseul, Isabel, and various smaller islands having been ceded to Great Britain by the convention of Nov. 14, 1899; and the largest islands of the Samoan group, the triple protectorate over the whole group having been renounced by Great Britain in the Anglo-German agreement of Nov. 14, 1899, and by the United States, which received Tutuila. Kaiser Wilhelmsland is the northern part of the northeastern half of New Guinea. The protectorate, which includes Long island, Dampier island, and other islands, has an area estimated at 70,000 square miles and about 110,000 inhabitants. The population on Jan. 1, 1899, was 58, of whom 53 were Germans. The German New Guinea Company, which formerly conducted the administration, transferred it to the Imperial Government on April 1, 1899. The local revenue for 1903 was estimated at 100,000 marks, which was supplemented by an imperial subvention of 72,000 marks. The natural products include precious woods, bamboo, and coconuts. The coco-palms are carefully preserved. Tobacco, cotton, and coffee are cultivated. Copra, mother-of-pearl, and trepang are bartered by the natives for European goods. Gold is found in the Bismarck mountains. The value of imports in 1900 was 377,882 marks, of which 109,824 marks represent food substances. The value of exports was 212,117 marks, of which 119,300 marks represent tobacco and 65,000 marks copra.

The Caroline, Palau, and Marianne Islands were first attached to the New Guinea protectorate. The Caroline and Palau Islands, having an area of 560 square miles, with 40,000 inhabi-
GIFTS AND BEQUESTS.

The following list comprises the most notable gifts and bequests for public purposes, of $5,000 and upward in amount and value, that were made, becauseoperative, or were completed in the United States in 1902. It excludes the ordinary denominational contributions for education and benevolent purposes, all State and municipal appropriations to public and sectarian institutions, and the grants of Congress for various purposes of relief. As in the previous year, large individual philanthropy was a striking feature of the gifts and bequests. Besides the instances noted, there were several of exceptional amounts that are excluded from the list because they were propositions yet to be fulfilled or were still in an indefinite shape. Among these, which deserve notice as parts of the benevolent record of the year, are the following:

- John D. Rockefeller proposed to endow a corporation, known as the General Education Board and created by an act of Congress in 1902, with a sum understood to be $10,000,000. The object of the corporation, as set forth in the act, is "the promotion of education within the United States of America, without distinction of race, sex, or creed," and the corporation is authorized "to establish, maintain, or endow, or aid others to establish or maintain, public, elementary or primary schools, industrial schools, technical schools, normal schools, training-schools for teachers, or schools of any grade, or higher institutions of learning, and also to emaploy or otherwise employ teachers and lecturers; to aid, cooperate with or endeavor associations or other corporations engaged in educational work within the United States of America." The corporators' names in the bill are William H. Baldwin, Jr., Jabez L. M. Curry, Frederick T. Gates, Daniel C. Gilman, Morris K. Jesup, Robert C. Ogden, Walter H. Page, George Foster Peabody, and Albert Shaw.

- President William R. Harper, of the University of Chicago, on Nov. 19 confirmed a report that $8,000,000 had been secured for the consolidation of Rush Medical College with the university, but declined to make public the name of the donor.

- Henry C. Frick, of Pittsburgh, was credited with the intention of founding a university in that city which would be a larger institution than the Polytechnic School for which Andrew Carnegie had set aside $5,000,000. Mr. Frick's plan comprised the furnishing of ground, buildings, and an endowment of $3,000,000, the institution to be under the charge of Dr. Frederick Mueller, Prof. Lorenz's assistant.

- Toward the close of the year Mrs. Jane Lathrop Stanford, of San Francisco, ordered the separation of plans for a new library building for Leland Stanford Junior University, to be "the handsomest and most costly structure of its kind on this continent."

- Excluded also from the list are the contributions from various sources for the American Board of Commissioners for Foreign Missions, aggregating $18,309,183; and also the contributions of the year to the Methodist Episcopal Thank-offering Fund for the promotion of education, which in the specified three years ending Dec. 31, 1902, overtopped the $20,000,000 asked for by more than $1,000,000.

The known value of the gifts and bequests here enumerated exceeds $94,000,000.

- Abraham, Abraham, Brooklyn, N. Y., gift to Cornell University, the great Egyptologican and Assyriological library of the late Prof. August Eisenlohr, of Heidelberg University.

- Adams, Charles Kendall, Madison, Wis., bequest to Wisconsin University, a sum variously reported as $4,000,000 on the death of his widow, which occurred also in 1902, 15 fellowships of $10,000 each. See Obituaries, American.

- Adams, Prof. Herbert Baxter, Johns Hopkins University (died in 1902), bequest to the university, his residuary estate; paid in 1902, amounting to $43,000.

- Adelphi College, Brooklyn, N. Y., gift from friends to secure gift of $125,000 from John D. Rockefeller, $125,000.

- Albinger, Joseph, Mount Vernon, N. Y., bequest to the Church of Our Lady of Victory there, $25,000.

- Allegheny College, gift from friend, for endowment fund, $300,000.

- American Unitarian Association, New York, gift from a friend, for missionary work, $10,000.

- Ames, Mrs. Anna C., North Easton, Mass., gift to the public high school there, a fully equipped gymnasium, cost $10,000.

- Amherst College, friends for a new observatory to contain the largest object-glass in New England, $50,000.

- Anderson, Mrs. A. A., New York city, gift to the Society for the Relief of Crippled and Conditioned of the Poor, for public baths, $100,000.

- Andrews, Wallace C., New York city (died April 7, 1898), bequest for the establishment of a Glee's Industrial School at Willoughby, Ohio, a part of his estate, which in 1902 amounted to about $1,000,000, and was made available by an act of the Ohio Legislature incorporating a trust to manage the bequest.

- Anonymous resident of New York city, gift for the establishment in Philadelphia of a free clinic for the treatment of poor consumptives, to be under the charge of Dr. Lawrence F. Flick, $600,000, and a pledge of a further sum for a maintenance.

- Archbold, John D., New York city, gift to Syracuse University toward endowment, $400,000; the New York Kindergarten Association, for endowment of new kindergarten, $40,000; and with his wife, gift to St. Christopher's Home, for a new school building, $15,000.

- Arter, F. A., Cleveland, Ohio, gift to Allegheny College, Meadville, Pa., $50,000.

- Atwill, Mrs. Cornelia A., New York, bequests to St. Paul's Prt. in Chicago of a Lolita Armour Institute of Bloodless Surgery, providing ground, buildings, and an endowment of $10,000,000, the institution to be under the charge of Dr. Frederick Mueller, Prof. Lorenz's assistant.

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GIFTS AND BEQUESTS.

Auchard, David, Helena, Mont., bequest for the building and maintenance of a Masonic Home, at a cost of $30,000, acres stocked with choice cattle and thoroughbred horses.

Aultman, Mrs. Katherine Barron, Canton, Ohio, bequest to that city for a library, $25,000.

Ayer, Frederick Nanning, New York, gift to Old Ladies' Home, Lowell, Mass., $50,000; Lowell Textile School, $30,000; and Lowell Day Nursery and Lowell Humane Society, each $10,000.

Babcock, Samuel D., New York, bequest to Christ Church, Riverdale, Calvary Church, and St. Luke's Hospital, each $20,000; the Metropolitan Museum of Art, the Metropolitan Museum of Natural History, the Children's Aid Society, and the Young Men's Christian Association, each $15,000; and the Charity Organization Society, New York Christian Home for Intemperate Men, the Samaritan Home for the Aged, the Sheltering Arms, and St. Luke's Home for Indigent Christian Females, each $2,000.

Baker, Cyrus G., Newark, N. J., bequest to the Society for the Relief of Respectable Aged Women, $30,000; Young Men's Christian Association, $20,000; and Newark Female Charitable Society, $10,000. For First Protestant Foster Home, Newark Orphan Asylum, and First Congregational Church, each $10,000.

Ball, Mrs. Sarah C. B., Galveston, Tex., gift to Austin Theological Seminary, $7,500; to Baptist College, $20,000, securing a like amount from John D. Rockefeller.

Baylies, Edmund L., New York, gift to Phillips Exeter Academy, $30,000.

Beach, Sophia E., New York, bequest to the Protestant Episcopal Church, for the poor of Calvary parish, and Samaritan Home for the Aged, each $5,000; Society for the Relief of the Destitute Blind, and Home for Incurables, each $3,000; and Society of St. Johnland, New York Protestant Episcopal City Mission, and Home for Men and Aged Couples, each $1,000.

Beckwith, W. Frelinghuysen, New York, bequest for a new church edifice for the West Farms Presbyterian congregation, $100,000.

Belden, James J., Syracuse, N. Y., gift to the First Christian Church Missionary Society for a new edifice, his residence property, valued at $75,000.

Benedict, Ezra, Albany, N. Y., bequest to American Baptist Home Missionary Society and American Baptist Missionary Union, each $10,000; American Baptist Publication Society, $5,000; other benevolent institutions, $60,000.

Bennett, Mrs. Thomas G., New Haven, Conn., gift to the Medical School of Yale University for new clinical building, $90,000.

Benson, Harriet S., Philadelphia, Pa., bequests to Women's Union Federation Missionary Society and China Inland Mission, each $50,000; American Sunday-School Union, Board of Foreign Missions of the Reformed Episcopal Church, and American Board of Commissioners for Foreign Missions, each $25,000; McAll Mission in Paris, $10,000; Seaside Home for Invalid Women at Atlantic City, Pennsylvania Seamen's Friend Society, $30,000; Pennsylvania Institution for the Blind, Pennsylvania Asylum for Indigent Widows and Single Women, Pennsylvania Institution for the Blind; Pennsylvania Working Home for Blind Men, Home Missionary Society, Pennsylvania Training-School for Feeble-minded Children, Children's Seashore Home at Atlantic City, Hampton Normal and Agricultural Institute, each $5,000; Pennsylvania Society to Protect Children from Cruelty, Pennsylvania Society for Prevention of Cruelty to Animals, Indian School in Carlisle, Pa., and Bernardo Homes in London, Eng., each $2,000; Tuskegee Normal and Industrial Institute, $2,000; and to several other institutions amounts making an aggregate of $500,000.

Berden, Jacob C., Hackensack, N. J., bequest to the Hackensack Hospital, the bulk of his estate, valued at $75,000.

Berry, George B., Baltimore, bequest to the Woman's College, Baltimore, available by decision of the court, between $15,000 and $20,000.

Beth-Isreal Hospital Association, New York city, gifts for the erection and equipment of a hospital building; cost, $225,000; opened May 25, 1902.

Billings, Robert C., Boston (died in 1899), bequests to his executors, to be distributed by them among such charitable institutions as they may select, the residue of his estate. On Dec. 12, 1902, the executors presented to the Supreme Court of Massachusetts a statement setting forth that they had a total sum of $114,600; the certificate of approbation, and presenting a list of 120 selected educational and charitable institutions for the approval of the court. Included in the list are nearly all the well-known Boston charities, libraries, and museums, several churches and hospitals, hospitals in a score of other New England cities, and the following-named institutions: St. Andrew's Congregational Church (New Orleans), Bates College, Berea College, Wellesley College, Tuskegee Institute, Lincoln University (Cumberland, Tenn.), Fisk University, Atlanta University, Fairmount College (Wichita, Kan.), Mayesville (South Carolina) Institute, Meadville Theological Seminary, Phillips Exeter Academy, Hackley School (Tarrytown, N. Y.), Abbot Academy, Andover. The direct bequests in his will included the following: $100,000 to Harvard University; $100,000 to the Massachusetts Institute of Technology; $50,000 to the Institute of Technology to found a "Billings Student Fund." Any student receiving benefit is expected to abstain from the use of alcohol and tobacco. The direct bequests and residuary distribution aggregated $1,845,000.

Bishop, Ebenezer B., New York, gift to the Metropolitan Museum of Art, a collection of jade ornaments valued at $75,000, and to fit up a room for its exhibition, $35,000.

Bisell, William C., Lincoln, Neb. (died in 1899), bequest to the National Christian Association of Chicago, to aid its crusade against secret societies, nearly all his estate of $25,000. The will was contested, and was upheld by the court in 1902.

Bliss, Aaron T., Governor of Michigan, gift to Albion (Mich.) College, $21,000.

Blocker, John, Buffalo, N. Y., gift to trustees, the Mineral Springs farm of 118 acres, near that city, as a site for a group of charities to be known as the Blocker Homes, together with a pledge of $100,000 in cash and $100,000 more by his will.

Blumenthal, Isaac, New York, bequests to Mount Sinai Hospital to establish a perpetual bed, $2,500; Hebrew American Orphan Asylum, $1,500; Montefiore Home, $1,000; and Home for Aged and Infirm Hebrews, $500.

Boardman, Lucy C., New Haven, Conn., gifts to that city, a Manual Training-School, cost $150,000; and to Yale University, funds for a science laboratory, to cost $60,000.
GIFTS AND BEQUESTS.

Bostow (Mass.) University, gifts to endowment, from the Board of Trustees, $50,000; from outside friends, $150,000.

Bowdoin College, gift from friends for centennial fund, $50,000.

Boyden, William, Mauch Chunk, Pa., bequests to Yale University for a Chair of Romance Languages and Literature, $75,000, and to aid deserving scholars, $5,000; St. Luke's Hospital, South Bethlehem, Pa., $5,000; and Lafayette College, $2,500.

Braidich, Adolph E., New York, bequests to Charity Organization Society of New York, $25,000; and American Society for the Prevention of Cruelty to Animals, $10,000.

Brick, Mrs. Julia Elma Brewster, Brooklyn, N. Y., bequests to Brooklyn Children's Aid Society, $9,000; Mariners' Family Asylum (State Island), American Bible Society, Society for the Aid of Friendless Women and Children (Brooklyn), and Brooklyn Industrial School Association and Home for Destitute Children, each $5,000; Brooklyn City Hospital, all her property in Ocean County, New Jersey; and to Joseph K. Brick Agricultural, Industrial, and Normal School, Edgecombe County, North Carolina, her residuary estate.

Brigham, Peter Bent, Boston, Mass. (died in 1877), bequest to trustees, his entire estate, to be held for twenty-five years and then applied to hospital purposes in Boston. The trust expired May 25, 1892, and the amount then available was $4,000,000.

Brooks, William, bequest to Lake Forest University, Chicago, funds for an annual lecture "on the connection, relation, and mutual bearing of any practical science or the history of our race, or the facts in any department of knowledge, with and upon the Christian religion," and also for an annual prize of $6,000 to the author of the best book on that subject.

Brown, Mrs. Natalie Bayard, Newport, R. I., gift of a new building for Emanuel Church, cost $80,000.

Brown, Mrs. Susan Dod, Princeton, N. J., bequest to Princeton University, her estate valued to $150,000.

Brown University, gift from friends to secure gift of $75,000 from John D. Rockefeller, $25,000. Mrs. George L. Martin, Greenwich, Conn., gift to that city for an isolation hospital, 15 acres of ground, with buildings.

Bryan MAWR College, gift from friends to secure gift of $250,000 from John D. Rockefeller, $250,000.

Bunzi, Mrs. Regina, New York, bequests to Society for Ethical Culture, and Hebrew Orphan Asylum, each $2,000; and Mount Sinai Hospital, Montefiore Home, Home for Aged and Infirm Hebrews, and German Hospital, each $1,000.

Burke, John Masterson, New York, gift to found a home for convalescents, $4,000,000.

Butler, Mrs. Olive M., Portland, Me., gift to Bowdoin College, for scholarships, $10,000.

Campbell, Felix, New York city, bequest for a building fund for a Roman Catholic cathedral in Brooklyn, $20,000.

Carnegie, Andrew, New York, gifts to Cooper Union, New York, $300,000; city of New Orleans for a main library building, and 3 branches, $250,000; Wooster (Ohio) University, toward rebuilding the university $100,000; Stevens Institute of Technology, Hoboken, N. J., for endowment of the Carnegie Laboratory for Engineering, $100,000; Clark University, toward securing a bequest, $100,000; American Library Association, to be used for the preparation and publishing of reading-lists, indexes, and other bibliographical and literary work, $100,000; Union College, to be devoted to the completion of Nott Memorial Hall, $40,000; Cincinnati Library Board, for the erection of 6 new branch libraries, $180,000; and for public libraries: Albany, N. Y., $175,000; Amsterdam, N. Y., $25,000; Buffalo, N. Y., $15,000; Atlantic, Iowa, $15,500; Baraboo, Wis., $12,000; Beatrice, Neb., $20,000; Bedford, Ind., $15,000; Benton Harbor, Mich., $15,000; Bessemer, Pa., $30,000; Binghamton, N. Y., $7,500; Blue Island, Ill., $15,000; Bozeman, Mont., $15,000; Brazil, Ind., $20,000; Canastota, N. Y., $10,000; Cedar Falls, Iowa, $15,000; Charlotte, Mich., $10,000; Chicago Heights, Ill., $10,000; Chippewa Falls, Wis., $20,000; Columbus, Ind., $15,000; Columbus, Ohio, $150,000; Danville, Ind., $10,000; Denison, Iowa, $10,000; Denver, Col., $200,000; Dillon, Mont., $7,500; Dover, N. H., $30,000; Dubuque, Iowa, $60,000; Eldora, Iowa, $10,000; El Paso, Tex., $53,000; Estherville, Iowa, $10,000; Fond du Lac, Wis., $300,000; Fort Scott, Kan., $15,000; Fremont, Neb., $15,000; Fulton, N. Y., $15,000; Georgetown, Col., $10,000; Groversville, N. Y., $50,000; Grand Island, Neb., $200,000; Greenscille, Ind., $15,000; Greencroft, Md., $15,000; Hampton, Iowa, $10,000; Huntington, W. Va., $35,000; Iowa City, Iowa, $25,000; Jacksonville, Fla., $50,000; Johnstown, N. Y., $25,000; Kenton, Ohio, $20,000; Kingston, N. Y., $20,000; Kokomo, Ind., $25,000; Lancing, Mich., $35,000; Las Vegas, N. Mex., $10,000; Laurel, Md., $10,000; Lawrence, Kan., $25,000; Lexington, Ky., $50,000; Little Falls, N. Y., $25,000; Littleton, N. H., $15,000; London, Ohio, $10,000; Lorain, Ohio, $30,000; Louisville, Ky., $250,000; Maquoketa, Iowa, $20,000; Marion, Ohio, $25,000; Marlboro, Mass., $30,000; Melrose, Mass., $25,000; Mitchell, S. Dak., $10,000; Monroe, Wis., $20,000; Montclair, N. J., $40,000; Mount Clemens, Mich., $25,000; New Albany, Ind., $35,000; New Brunswick, N. J., $50,000; Newman, Ga., $10,000; Newport, Ohio, $6,500; Newton, Iowa, $10,000; Newton, Kan., $10,000; Oskaloosa, Iowa, $20,000; Ottawa, Kan., $15,000; Paris, Ill., $18,000; Peterboro, N. Y., $5,000; Pomona, Cal., $15,000; Port Huron, Mich., $40,000; Pueblo, Col., $60,000; Redfield, S. Dak., $10,000; Reno, Nev., $15,000; St. Joseph, Mich., $15,000; Salina, Kan., $15,000; Santa Ana, Cal., $15,000; Santa Ana, Tex., $15,000; Santa Rosa, Cal., $20,000; Satsuma, N. Y., $30,000; Sheboygan, Wis., $35,000; Shelbyville, Ind., $20,000; Southbridge, Mass., $20,000; Sparta, Wis., $10,000; Tampa, Fla., $25,000; Taunton, Mass., $60,000; Temple, Tex., $10,000; Tipton, Ind., $10,000; Tipton, Iowa, $10,000; Washington, Ohio, $12,000; Waterloo, Iowa, $40,000; Waterville, N. Y., $20,000; Waukesha, Wis., $15,000; West Hoboken, N. J., $35,000; Wilmington, Ohio, $10,000; Worcester, Mass., $15,000; Xenia, Ohio, $20,000; and Yankton, S. Dak., $10,000. The library gifts were conditional on the various cities and towns providing the sites and agreeing to make annual appropriations for maintenance equal to 10 per cent. of his respective gifts. This list excludes Mr. Carnegie's gifts for library and other public purposes outside of the United States.

Carnegie Institution, Washington, D. C., awards by the, to Prof. W. O. Atwood of Wesleyan University, for the prosecution of inquiries with the respiration calorigram, $5,000; to its Botanical Advisory Board, for the establishment of a Botanical Laboratory and maintenance of the Carnegie Laboratory, $8,000; and to Yale University for its experimental psychology laboratory, a sum not specified.
GIFTS AND BEQUESTS.

Carney Hospital, Boston, Mass., gifts from friends for a new building for the out-patient department, $10,000; securing a State appropriation of similar amount.

Carpenito, S. W., gifts to Columbia University, 2 scholarships, $10,000; and to Saratoga county, N. Y., for a hospital, $10,000.

Carroll, Mrs. Mary Austin, Boston, Mass., gift to University of Virginia, a pledge of $10,000 annually.

Catholic Missionary Union, Washington, D. C., gift from a priest for the establishing of the Catholic Mission House, $10,000.

Catholic University of America, Washington, D. C., gift from a priest of Pennsylvania, for a fellowship, $11,000; gifts from friends for a training-school for missionaries to non-Catholics, $50,000.

Chandler, Mary Ellen, New York, bequests to the American Unitarian Association for the Hackley School at Tarrytown, $50,000; and to the Society for the Employment and Relief of Poor Women, $500.

Chapman, William H., New London, Conn., gift to that city, for a manual training-school, $100,000.

Cheever, William J., North Andover, Mass., bequests to Orphans' Home, and Woman's Christian Association, both of Denver, Col., each $25,000; Essex Institute of Salem, Mass., $20,000; city of Salem for provisions for the needy, $10,000, and for its Public Library, $5,000; Salem Marine Society, Seamen's Charitable Society, East India Marine Society, Seamen's Widows' and Orphans' Society, Samaritan Society, and Woman's Friend Society, all of Salem, each $2,000; and Bertram Home for Aged Men, Salem Hospital, Association for Relief of Gwichi, and Deceased Women of Salem, Woman's Christian Relief Society of Denver, Col., and other institutions, the residue of his property, estimated at $300,000.

Chicago, University of, gifts, from an American woman in Paris, for a French school, $200,000; and from other friends, $250,000.

Church of the Heavenly Rest, New York city, bequest to its friend to the Philfield, $40,000.

Clark, Edward W. and Clarence H., Philadelphia, Pa., joint gift to the University of Pennsylvania, toward a chair of Assayiology, $100,000.

Cochran, William F., Yonkers, N. Y., bequests to that St. John's Riverside Hospital, as an endowment, $160,000; Hollywood Inn, as an endowment, $100,000, and for library, $10,000; Women's Institute of Yonkers, Church Mission to Deaf-Mutes in New York, Trustees' Fund for Relief of Widows and Orphans of Deceased Clergymen, and Aged, Infirm, and Disabled Clergymen of the Protestant Episcopal Church of New York, and Presbyterian Board of Relief for Disabled Ministers and Widows and Orphans of Deceased Ministers, each $10,000; and Young Men's Christian Association of Yonkers, $5,000.

Cole, Henry, Denver, Col., gift to the Methodist Episcopal Church of that city, for evangelistic work, new buildings, and charities, $350,000.

Colman, Mrs. Anne Lawrence, Greenwich, Conn., bequests to the Post-Graduate Hospital of New York, $25,000; Presbyterian Home and Orphans of Deceased Ministers, each $10,000; and Children's Aid Society and Diet Kitchen, New York, each $1,000; and the Newport Hospital and the Charity Organization of Newport, R. I., each $1,000.

Columbia University, gifts from friends to endow the Professorship of Social and Political Ethics, $7,500, and for books for the library, $10,000; and a joint gift from several friends for the Dean Lung Department of Chinese, $10,025; joint gift by James Stillman, H. McK. Trowbridge, Edwin Gould, George F. Peabody, James Speyer, Stuyvesant Fish, Archer M. Huntington, Isaac N. Seligman, Samuel Thorne, D. Willis James, William E. Dodge, and Mrs. Henry Villard, the purchase of a lot of land in front of the university, known as South Field, cost $1,900,000; cash payment, $400,000.

Converse, Miss J., Philadelphia, Pa., President of Baldwin Locomotive Works, gift to the Presbyterian General Assembly's Committee on Evangelical Work, $25,000.

Cook, Joseph, D. D., Glen Falls, N. Y., bequest to the Presbyterian Board of Foreign Missions, available on the death of his widow, his entire estate, valued at $50,000.

Cooper, Edward, and others, New York city, joint gift to Cooper Union, for endowment, $200,000.

Cooper Union, New York, gift from friend, to endowment fund, $25,000.

Cox, Sarah Silver, Boston, bequest to Boston Home for Incurables, Perkins Institute for the Blind, Boston Industrial School for Crippled and Deformed Children, and the Boston Young Men's Christian Union, each $5,000; and to the Sewing-School of the North End Union, $4,000.

Crandol, Justis Brazili, Seaville, N. J., bequests to Rahnemann Medical College and Hospital, Philadelphia, and Women's Hospital, Philadelphia, each $5,000; Old Ladies' Home in Onewa, N. Y., Home for Destitute Children, Peterboro, N. Y., Methodist Episcopal Church, Seashore City, N. J., Methodist Episcopal Church, Seaville, N. J., and Calvary Baptist Church, Seaville, N. J., each $1,000.

Cranes, Zenas, Dalton, Mass., gift to the city of Pittsfield, Mass., for a museum of natural history and art, $50,000.

Cresson, Mrs. Priscilla H., Philadelphia, bequest to trustees, $500,000, the interest to be used to enable students of unusual proficiency to continue their studies in Europe. The bequest includes a legacy left for the same purpose by Emlen Cresson (d), which became operative by the death of his widow.

Crocker, Mrs. William H., San Francisco, gift to University of California, for researches in Mexico, $5,000.

Currier, Mrs. Laura, New York, bequests to Yale University for a fund as a help to deserving students, $100,000; Columbia University, for a similar fund, $50,000; and Presbyterian Hospital, New York Society for Relief of the Ruptured and Crippled, Madison Square Church Mission, Home for the Friendless, Messiah Home for Children, New York Post-Graduate Hospital, for the "babies' ward," New York Society for Prevention of Cruelty to Children, and Society for Prevention of Cruelty to Animals, each $5,000.

Curtis, William J., New York, gift to Bowdoin College, $5,000.

Dana, Ruth Charlotte, bequest to the Catholic University of America, Washington, D. C., for a scholarship, $5,000.

Daughters of the American Revolution, Philadelphia Chapter, gift to the Government for an army recreation building, $10,000.

Deaconess Holt, Milwaukee, Wis., gift from friend for endowment, $5,000.

De Peyster, Mrs. Cornelius E., New York, bequest to the New York Historical Society, avail-
ABLE ON THE DEATH OF HER DAUGHTERS, THE FUND FROM THE SALE OF HER REAL ESTATE, VALUED AT $142,000.

Devlin, Mrs. Sarah Ferris, Boston, Mass., bequests to Catholic University in Washington, D.C., $50,000; and to 4 Catholic charities in Boston, each $5,000.

Dodge, William Earl, New York, gifts to Columbia University, $100,000; for a students' building, $125,000; and New York Chamber of Commerce, a marble statue of John Jay, cost about $12,000.

Dougherty, Andrew, New York, bequest to the Catholic University of America, Washington, D.C., for general expenses, $5,000.

Dugan, Francis, New York, bequest to the Church of St. John the Evangelist, $7,000; the Church of St. Paul the Apostle for charities, $2,000; and to the Sisters of the Poor of St. Francis, $1,000.

Duke, James B., New York city, gift to Trinity College, Durham, N.C., a new library building, $10,000 for the purchase of books, and funds for the establishment of chairs in German, Romance Languages, Political Economy, and Applied Mathematics.

Duke, William W., New York city, gift to Trinity College, Durham, N.C., a dormitory.

Ebert, Frank, New York, bequest to the Metropolitan Museum of Art, 25 paintings, 8 of which are valued at $125,000.

Eagler, Almerton, Evansville, Wis., bequest to the town for a library, $10,000.

Eager, Mr. and Mrs. Mary C., Dayton, Ohio, bequest to Young Men’s Christian Association of that city, for a new building, her homestead, worth $100,000; the association becomes a residue legatee; total bequest, $150,000.

Edgecombe, Sarah, Bath, Me., bequests to Bates College, $20,000; Maine Wesleyan Seminary and Female College, $10,000; Bangor Theological School, Good-Will Farm for Boys at Fairfield, Me., Maine Central Hospital, and Woman’s Christian Association at Lewiston, each $5,000; city of Bath for the poor, $500; and to Tuskegee Institute, the residue of the estate.

Edwards, Jacob, Boston, Mass., gift for library building, with site, at Southbridge, Mass., $50,000.

Elliot, William L., Philadelphia, gift for a home for orphan daughters of Masons, ground and fund for buildings, total value, $1,000,000.

Elkins, James W., Pittsburg, Mass., bequests to Cushing Academy, Ashburnham, Mass., a legacy estimated at $200,000 to $400,000; and the town of Ashburnham for a town hall, $40,000.

Farnsworth, George, Chicago, gift to the city of Oconto, Wis., for a library, $15,000.

Farr, George W., Jr., Philadelphia, Pa., bequests to the Ministerial Relief Association of the Presbyterian Church, $10,000; Presbyterian Board of Home Missions, and Presbyterian Board of Foreign Missions, each $6,000; French Benevolent Society, $1,000; and Board of Publication and Sabbath School Work of the Presbyterian Church in the United States, the residue of the estate.

Flanagan, Patrick, Perth Amboy, N.J., bequest to St. Michael’s Hospital, Newark, N.J., $10,000.

Florence Crittenton Mission, New York city, gift from a friend for the establishment of a similar home in a western city, $15,000.

Ford, Paul Leicester, New York, bequest to the New York Public Library, on the death of his brother, Worthington C. Ford, his entire library. See OBITUARIES, AMERICAN.

Frick, Henry C., Pittsburg, gift to Wooster (Ohio) University for new building fund, $35,000.

Friendly Aid Settlement House, New York city, gifts from friends to pay debts, $47,000; name changed to Warren Goddard House.

Frisbie, Louise, New York, bequest to Vassar College, $12,000.

 Fuller-Gould Syndicate, Baltimore, Md., gift to Johns Hopkins University, toward endowment fund, $15,000.

Gates, John W., Chicago, Ill., gift to Rural Home and School for Boys, for a site for the school, $10,000.

Gayley, James, first vice-president, United States Steel Corporation, gift to Lafayette College, a laboratory for bacteriology.

George Junior Republic, New York, gift from a woman in Georgia, name withheld, for the Freeville Settlement, $16,000.

Gladig, Thomas B., New York, gift to the Army Department of the Young Men’s Christian Association at Fort Hancock, N. J., for a new building, $15,000.

Glover, Joseph B., Boston, Mass., bequests to 50 charitable organizations or institutions, all local except Hampton Normal and Agricultural School and Tuskegee Normal and Industrial School, $237,000; and for benevolent purposes, the residue of $100,000 more.

Good-Will Farm School, Fairfield, Mass., gift from a New York friend toward a fund for a manual training-school, $15,000.

Gould, Helen Miller, New York, gifts to Mount Holyoke College for a chair of Biblical Literature, $40,000; the War Department Young Men’s Christian Association, for a building for soldiers at Fort Monroe, $15,000; Irvington (N. Y.) Public Library, for furnishings, $10,000; Mount Holyoke College for Northfield Girls, two scholarships; and Irvington and Tarrytown (N. Y.), a club house for the benefit of the poor, $8,500.

Grace Episcopal Church, Elizabeth, N. J., joint gift from a New York woman and her 2 sons, a club house, cost from $30,000 to $60,000.

Grant, Julia Dent, Washington, D.C., bequest, in unsigned codicil, which her executors promised to carry out, to the trustees of the Metropolitan Museum of Art, New York, “the ancient golden lacquered cabinet presented to me by the Empress of Japan and said to be over one thousand years old; also the bronze and gold vases presented to me by the Mikado; also the toilet set of solid gold presented to me by the King of Siam; also the silver and gold stand and gold set presented to me by the second King of Siam; also the silver perfume case in the form of an Indian temple presented to me; and also such other souvenirs given me in my trip around the world with my late husband, Gen. U. S. Grant, as my executors may think of such value or interest as to be a desirable part of the collection in said museum, if any souvenirs there be."

Greenleaf, Mary Longfellow (sister of Henry W. Longfellow), Cambridge, Mass., bequests to the trustees of donations, Protestant Episcopal Diocese of Massachusetts, $25,000; and to other benevolent institutions, $55,000.

Grier, James H., Warrington, Pa., bequests to Hahnemann Medical Hospital and Presbyterian Hospital, each $10,000; and Presbyterian Orphanage and Old Man’s Home, each $5,000.

Guggenheim, Daniel and Simon, New York, joint gift to Jewish Theological Seminary, $60,000.
GUGGENHEIM, Meyer, New York, gifts to Jewish Hospital, Logan, Pa., for additional building, $30,000; and to Methodist Episcopal Hospital, New York city, for an electrical ambulance service, $20,000.

GUGGENHEIM, Simon. See GUGGENHEIM, Meyer.

GUGGENHEIM, William, New York, gift to United Hebrew Charities, toward endowment fund, $50,000. He also pledged $10,000 for each of $20,000 given on or before Jan. 1, 1902.

Guiteau, F. W., New York, gift to the Irvington (N. Y.) Public Library, for books, $10,000.

Haggis, Mrs. James Ben All, New York city, gift to the Episcopal Diocese of Lexington, Ky., conditional on Ashland Seminary being always at Versailles, funds for the Margaret Hall; and to restore the semiinary dormitory, at least $20,000.

Hall, Francis, Elmira, N. Y., bequests to Elizabethtown, Conn., for a public library, $30,000; Elmira College, $5,000; Orphans' Home in Elmira, Elmira Young Men's Christian Association, the Anchorage, and the Armot Ogden Hospital, for free beds, each $5,000; Elmira Industrial Association and Home for the Aged, each $2,000; and Scheneecytum, for $2,000.

Hall, William, Jr., and wife, Brooklyn, N. Y., gift for completion of the Seney Hospital there, $12,500.

Hamilton College, Clinton, N. Y., gift from alumni, for a new Hall of Commons, $50,000.

Harkness, Albert, Professor of Greek, Brown University, gift to the university, for a scholar ship to the American School in Athens, $5,500.

Harvard University, gift from a friend for the astronomical department, half to be used in extending the Astronomical Library Building and contents and half in making researches for the benefit of science, $20,000.

Hatch, Mrs. Walter, Brooklyn, N. Y., gift to Yale University, to found a lectureship in theology, $5,000.

Havemeyer, Henry O., New York, gifts to Bryn Mawr College, $20,000; to South Beach School District for a new school, seven acres of land, and the First Presbyterian Church, Greenwich, Conn., $10,000, supplementing a gift of nearly the entire cost of parsonage ($20,000) and church edifice.

Hayes and wife, Washington, D. C., joint gift to Westminster School, Simsbury Conn., a memorial chapel, cost $10,000.

Hearst, Mrs. Phoebe A., San Francisco, gifts to the University of California, a mining building, cost $500,000; and for maintenance of the Department of Anthropology, a pledge of $50,000 per annum. Hearst, William E., New York, gift to the University of California, the equipment for an out-of-door amphitheater, cost $40,000.

Hebrew Benevolent Society, Baltimore, gifts from friends, to aid needy Jews of that city, $5,000.

Hennessy, John, Archbishop of Dubuque, Iowa (died in 1900), bequest paid in 1902 to the Catholic University of America, Washington, D. C., for 3 scholarships, $17,000.

Herter, Christian A., and wife, New York city, gift to Johns Hopkins University, Baltimore, Md., for a lectureship in the Medical Department, $30,000.

Herzstein, Dr. Max, San Francisco, gift to the University of California, to equip physiological laboratory, $8,000.

Hewitt, Caroline C., New York, gift to St. Bartholomew's Parish, a new clinic building.

Hobart, Mrs. Jennie T., widow of Vice-President Hobart, Paterson, N. J., to the Children's Day Nursery of that city, ground and a building, cost $25,000.

Hoe, Mrs. Richard M., Irvington, N. Y., gift to Westchester Temporary Home at White Plains, a new school building.

Hoey, Michael J., New York, bequests to Roman Catholic Orphan Asylum Society, Home for the Aged, and Home for Children, Staten Island, each $500; Female Orphan Asylum, St. Vincent de Paul Society, pastors of the Churches of the Annunciation and of SS. Peter and Paul, for the poor of their parishes, and St. Catherine's Hospital, each $200; Catholic University at Washington, $100; and to the foregoing beneficiaries, his residuary estate.

Hoffman, Eugen Augustus, Dean of General Theological Seminary, New York, bequests to that institution, $100,000; Domestic and Foreign Missionary Society of the Protestant Episcopal Church, to form a permanent fund, and New York Historical Society, each $50,000; Fund for Widows and Orphans of Deceased Clergymen and of Aged, Infirm, and Disabled Clergymen of the Protestant Episcopal Church and Protestant Episcopal Public School, each $50,000; to the Museum of Natural History, the Streeker collection of butterflies, valued at $20,000; and Clergymen's Retiring Fund Society of the Protestant Episcopal Church, $10,000. See OBITUARIES, AMERICAN.

Hoge, William L., bequest to J. Howard Hospital, $50,000.

Hogg, J. Renwick, gift to Lafayette College, Brainerd Hall (Young Men's Christian Association building), cost, $35,000.

Holden, Mrs. E. E., New York, gift to Thousand Island Park Association, a public library, from $10,000 to $15,000.

Holy Trinity Episcopal Church, Brooklyn Heights, N. Y., gift from a friend for its endowment fund, $30,000.

Hopkins, Robert E., Tarrytown, N. Y., bequests to Home for Old Ladies, and Onondaga County Orphan Asylum, each $9,529.

Humphrey, Alexander C., New York, gift to Angels' Episcopal Church, an equipped summer home near Poughkeepsie, N. Y.

Hunter, Mrs. Frances A., New York, bequests to American Bible Society, Board of Home Missions of the Presbyterian Church, and Board of Foreign Missions of the Presbyterian Church, each $5,000.

Huntington, Mrs. Collis P., New York, gifts to Harvard University for a Laboratory of Pathology and Bacteriology, $250,000; General Memorial Hospital for Treatment of Cancer and allied diseases, $100,000; Hampton (Va.) Institute, a new library building; Tuskegee (Ala.) Institute, an academy building; and the Children's Industrial Home, New Brunswick, N. J., $5,000.

Hutchinson, Alexander C., president of the Morgan Louisiana and Texas Railroad and Steamship Company, New Orleans, bequests to three charitable institutions in New Orleans, each $20,000; and to the Medical Department of Tulane University, his residuary estate of $1,000,000.

Mr. Hutchinson's death revealed a philanthropic mystery of long standing, he having made frequent and large contributions to local charities.
in the form of "In the name of Josephine," now shipped to be the last of Henry S. Hayler, New York, gift to Syrane University, to promote the work of its Christian Associations, $15,000.

Jennings, Frederick B., New York, gift to Saratoga Hospital, a full equipment of sun-parlor.

Jockelheimer, Henry B., New York, gift to Mount Sinai Hospital, an electrical ambulance.

Jinnes, George N., New York, gift to the Artists' Fund Society, for aiding old, destitute, and sick painters, $5,000.

Jackson, Huntington W., Chicago, bequests to 6 local institutions, each $1,000.

Jaffray, Robert, New York, bequests to Board of Foreign Missions of the Presbyterian Church, Board of Domestic Missions of the Presbyterian Church, Board of Church Extension of the Presbyterian Church, Board of Education of the Presbyterian Church, and Presbytery of New York, each $2,000; and New York Society for Prevention of Cruelty to Children, and Working Women's Protective Union, each $1,000.

Jarvis, James N., Bloomfield, N. J., gift to the city, a library, cost $100,000; and for its endowment, $50,000.

Jencks, Francis M. See Wyman, William.

Jennings, Frederick B., New York, gift to Williams College, 150 shares of United States Steel Corporation stock.

Jespur, Morris E., President of New York Chamber of Commerce, gift to that body, a marble statue of De Witt Clinton, cost about $12,000; gifts to Princeton University for the library funds $10,000; and to Hampden Normal and Agricultural Institute and Tuskegee Normal and Industrial Institute for endowment funds, each $2,500.

Jewett, Miss Sarah Orme, Boston, Mass., gift to Bowdoin College, a memorial window.

Jewish Residents in the United States, gifts of 25 cents each on Shekel Day, to promote the Zionist movement in Palestine, aggregating $25,000.

Johns Hopkins University, gift from friends for the endowment of new university buildings, $1,000,000.

Johnson Iron Works, Elyria and Lorain, Ohio, gift to the Young Men's Christian Association for the use of their employees, a fully equipped building.

Jones, Frank, Portsmouth, N. H., bequest to the public library, $5,000.

Jones, James, New York, gifts for relief of the poor of the city, $2,500; to Charity Organization Society, and United Hebrew Charities Society, each $1,000.

Kelly, Howard A., M. D., Professor of Gynecology in Johns Hopkins University, gift to Johns Hopkins Hospital for extension of the gynecological ward, $10,000.

Kennedy, John S., New York, gift to New York Chamber of Commerce, a marble statue of Alexander Hamilton, cost about $12,000.

Keenser, William. See Wyman, William.

King, Miss Mary Rhinelander, Great Neck, L. I., gift to All Saints' Church, a pulpit, choir and clergy stalls, reredos, rood-screen, and other furnishings of the chantry.

King's Daughters, St. Christopher Chapter, Dobbs Ferry, N. Y., gift to St. Christopher's Home, $3,000.

Landreth, Eliza G., Philadelphia, bequests to charitable and religious institutions, an estate of $47,000.

Landy, Louis H., New York city, gift to Cooper Union for three scholarships, $7,440.

Lee, Mrs. Susan F., New York, bequest to Washington and Leen's University, $30,000.

Leece, Mrs. B. P., New York, bequests to Central University of Kentucky, $25,000; and Leece Institute of Jackson, Ky., $15,000.

Lent, Mrs. Sarah E., Peekskill, N. Y., bequests to Helping Hand Association (Peekskill Hospital), and First Presbyterian Church, Peekskill, each $5,000; Board of Home Missions of the Presbyterian Church, $2,000; Board of Missions for Freedmen of the Presbyterian Church, $1,500; and American Seaman's Friend Society, Presbyterian Home for Aged Women, and Colored Home and Hospital, New York city, each $1,000.


Lewinsohn, Leonard, New York, nine children of, joint gift to Jewish Theological Seminary, $50,000; and to the Hebrew Sheltering Guardian Society, $125,000. The children also agreed to give $100,000 each to charity in memory of their father.

Lincoln Memorial University, Cumberland Gap, Tenn., gifts from friends for endowment, $250,000.

Lindesmith, Rev. E. W. J., Cleveland, Ohio, gift to the Catholic University of America, Washington, D. C., for a scholarship, $5,000.

Livingston, Augustus E., New Haven, bequests available on the death of his widow, to Yale Law School, $50,000; Church of the Redeemer, $20,000; Organized Charities, New Haven Colony Historical Society, City Missionary Society, and Welcome Hall, each $5,000; and St. Francis and New Haven Orphan Asylums, each $2,000.

Littelfield, George L., Pawtucket, R. I., gift to Brown University, available on the death of his widow, for a Professorship of American History and a General Fund, his estate, valued at $500,000.

Loesser, Frederick, and wife, Brooklyn, N. Y., gift to Brooklyn Institute of Arts and Sciences, a trust fund of $10,000.

Lord, Benjamin, New York, bequests to the Reformed Episcopal Church, available on the death of his daughter, for the Sustentation Fund, $17,000; the Theological Seminary, $15,000; the Female Guardian Society, $12,000; to several church homes, each, from $1,000 to $2,000.


McClary, William, Philadelphia, Pa., bequests to Grand Masonic Lodge to establish a perpetual fund for support of a home for orphan children of Free Masons, $30,000; and Pennsylvania Grand Lodge of Free Masons, for support of the Home for Aged Masons in that city, $20,000.

McCormick, Mr. and Mrs. Harold, Chicago, III., gift to Memorial Institute of Infectious Diseases, for endowment, $1,000,000.

McCormick, Mrs. M. F., Chicago, Ill., gift to University of Wooster (Ohio), toward replacing the burned buildings, $15,000.

McCormick Theological Seminary, gift from a friend, for a fellowship in New Testament Greek, $30,000.

McDonnell, E. L., Muskegon, Mich., bequest to establish a home for indigent old women at Fairmount, Ind., $60,000.

McKay, Gordon, Newport, R. I., gift for a manual training-school for colored children, the Tower Hill House, South Kingston.
GIFTS AND BEQUESTS.

McKee, John, Philadelphia, Pa., bequests for the constructing and endowing of an institution for negro orphans, to be known as McKee College, and to McKee City, N. J., for a Catholic church, rectory, and convent, his residuary estate of $50,000,000.

McCullin, James, Detroit, Mich., bequests to Grace Hospital, $50,000; and Home of the Friendless, Woman's Hospital, and Foundlings' Home, Children's Free Hospital Association, and Little Sisters of the Poor, each $1,000. See OBITUARIES, AMERICAN.

Manhattan Eye and Ear Hospital, New York city, gift from a friend, name withheld, toward a new building on a new site, $50,000.

Mary Katharine, Mother, formerly Miss Mary Katharine Drexel, of Philadelphia, gift for instruction of Indian and negro children, a large school building at Cascade, S. Dak.

Masten, Charles H., M. D., Nyack, N. Y., bequests to Nyack Hospital, $20,000; and the Methodist Episcopal Churches of Piersmont and Palisades, $2,500.

Maxwell, Henry W., Brooklyn, N. Y., bequests to Long Island College Hospital and the Brooklyn Industrial School Association and Home for Destitute Children, each $20,000; Brooklyn Association for Improving the Condition of the Poor, Brooklyn Union for Christian Work, and American Unitarian Congregational Society of Brooklyn, American Unitarian Society of Boston, Children's Aid Society, Brooklyn Society for Prevention of Cruelty to Children, American Society for Education of Deaf and Dumb, Meadville (Pa.) Unitarian Seminary, Brooklyn Bureau of Charities, and Greenwood Cemetery Association, each $5,000. See OBITUARIES, AMERICAN.

Maxwell, J. Rogers, Brooklyn, N. Y., gift to Long Island College Hospital, for a new building, $400,000.

Merchants' Club, Baltimore, Md., gift to Johns Hopkins University, toward endowment fund, $50,000.

Messiah Women's Branch Alliance, New York city, gift from the Church of the Messiah, New York city, for home missionary work, $20,000.

Methodist Episcopal Church in New York city, friends of, gifts to the Worn-out Preachers' fund, $50,000.

Mills, Darius C., New York city, gift to University of California, for the Department of Philosophy, $50,000; and for an astronomical expedition to the Southern Hemisphere, $24,000.

Morgan, Henry A., gift to Wells College, for a new building, $50,000.

Morgan, William R., Hartford, Conn., bequests to South Baptist Church, and Old People's Home, each the income of about $52,000; and Masonic Home at Wallingford, the income of about $36,000.

Morris, Mrs. Georgia E., New York city, bequest to the building fund of the Cathedral of St. John the Divine, made available in 1902 by the death of her sister, $200,000.

Morse, Charles W., New York city, gift to the city of Bath, Me., a high-school building, to cost from $50,000 to $75,000.

Morse, Samuel Finley, New York city, bequest made available by the death of his widow (Nov. 14, 1901) and the division of his estate (September, 1902), to Home for the Friendless, Poughkeepsie, N. Y., $30,000; and a University, $2,000; Union Theological Seminary, Richmond, Va., $1,000; Old Ladies' Home, Poughkeepsie, $1,000; University of the City of New York, for annual medal for scholarship, $1,000; his trustees, for medal to encourage geometrical research, $1,000; and the National Museum, Washington, D. C., all his orders, decorations, etc.

Newberry, Mrs. Helen Z., New Haven, Conn., gift to Yale University, an organ for Woolsey Hall, cost $30,000.

New Haven County (Conn.) Anti-Tuberculosis Association, gifts from members and friends, funds for modern hospital for the treatment of consumptives.

Newton Theological Seminary, gift from friends to secure gift of $150,000 from John D. Rockefeller, $150,000.

New York Kindergarten Association, gift from a friend, for endowment fund, $40,000.

Northwestern University, Evanston, Ill., gift from a friend, a school of technology.

Norwegian Residents, New York city, gifts for the erection of a new Norwegian hospital there, aggregating $140,000.

Oberlin College, Ohio, gift from friend in New England, name withheld, for new endowment fund, $50,000. The same donor gave a similar sum to the previous fund.

Ogden, Joseph, New York, gift of a new Presbyterian Church building in Chatham, N. J.

Oliver, Henry W., Pittsburg, Pa., gift to Lafayette College, the Oliver library.

O'Neill, Matthew, Buffalo, N. Y., bequest to Hobart College, $30,000.

O'Boyle, John E., New York city, gift to Cooper Union, for two scholarships, $5,000.

Palmer, Francis A., New York city, bequests to Palmer Christian College, Iowa, $30,000; Elon College, North Carolina, $30,000; Union Christian College, Indiana, $30,000; Hamilton College, $4,000; Congregational Sunday-School and Publishing Society, $5,000; Westchester County Temporary Home for Destitute Children, $5,000; Chapin Home for the Aged and Infirm, $5,000; the Presbyterian Hospital, New York city, $5,000; the Presbyterian Church, Bedford, N. Y., $1,000; and the Francis Asbury Palmer fund, the residue of his estate ($500,000). See OBITUARIES, AMERICAN.

Palmer, Mrs. L. M., bequests to the hospital of the University of Michigan for a ward for children, $20,000, and for its endowment, $15,000.

Park Avenue Methodist Episcopal Church, New York city, gifts from friends, to extinguish debt, $27,000.

Park, Cordandt, Newark, N. J., gift to the city of Perth Amboy, N. J., the old Parker homestead there, built in 1719, for a site for a Carnegie library.

Parsons, John E., New York, gift to St. Helen Episcopal Church, a new parish building, cost $5,000.

Patton, Thomas B., treasurer of the Grand Lodge of Masons of Pennsylvania, gift to that body for the relief of widows of Master Masons, $42,024, making with his previous gifts a fund of $100,000.

Peabody, Daniel Kimball, Chicago, Ill., gift to Whittman College at Walla Walla, Wash., $50,000, making his total gifts to the college, $250,000; Illinois College, Jacksonville, $50,000; Fargo (N. Dak.) College, $25,000; and Fairmount College, Wichita, Kan., $25,000.

Pennsylvania, University of, gift of a friend, for the building fund of the medical laboratories, $10,000; and from other friends, the entire amount for the new gymnasium, to cost $500,000.
GIFTS AND BEQUESTS.

Perkins, George W., New York, gift to Buffalo Young Men's Christian Association, for a new home, $2,000.

Phelps, Henry, Philadelphia, Pa., gift to the city, a clinic for the treatment of poor consumptives; and to the Educational Alliance of New York, $10,000.

Phelps, Laurence C., Denver, Col., gift to the State of Colorado, a thoroughly equipped hospital for tuberculous patients, cost over $25,000.

Pitts, William, Taunton, Mass., bequest for Protestant Episcopal mission work in the South, $32,000.

Plainfield, N. J., citizens of, gifts for a Muhlenberg Hospital there, $125,000; cornerstone laid Dec. 6, 1902.

Pope, A. A., Cleveland, Ohio, gift to Western Reserve University, $100,000.

Post-Graduate Hospital, New York, gifts from a friend, conditional on the payment of its debt, $100,000; and from two other friends for payment on debt, $35,000.

Proctor, Mrs. Henry Codman, New York city, gifts to the Pro-Cathedral District of New York city a club-house, cost $55,000; and to Grace Episcopal Church, Elizabeth, N. J., a club-house, cost $35,000.

Power, John J., Worcester, Mass., bequests to the Association of Sisters of Our Lady of Mercy, land, the convent and orphanage; and to Holy Cross College, his library.

Pratt, Mrs. Mary Morris, Brooklyn, N. Y., and Mrs. Mary Shaw Thompson, Allegheny, Pa., joint gift to Vassar College, a chapel.

Princeton Theological Seminary, gifts from friends for a William Henry Green chair of Semitic Languages, $100,000.

Princeton University, gifts from students and alumni, for a new gymnasium, $250,000; from friends for endowment of the Old Testament Professorship, $100,000; and from the classes of 1901 and 1902, for special purposes, $60,000.

Proctor, Ellen G., Brookline, Mass., bequests to Harvard Medical School, to promote the study of chronic diseases, $50,000; and American Board of Foreign Missions, for medical work, $10,000.

Proctor, Harley T., Williamstown, Mass., gift to the town, conditional on the raising of $50,000 more for improvement of the roads, $10,000.

Proctor, Mrs. Newton Theological Senator from Vermont, gift to the Young Men's Christian Association for the use of his employees at Proctor, Vt., a thoroughly equipped building of marble.

Protestant Episcopal Church, members of, names withheld, gifts to start a fund for the erection of a cathedral in Manila (to cost $1,000,000), $200,000.

Purcell, George H., Jr., Mattapoisett, Mass., gift to that town for a library, $10,000.

Radcliffe College, Alumnae of, gifts for a college building, to be a memorial of Mrs. Louis Agassiz, $100,000.

Bankine, William B., Niagara Falls, N. Y., gift for a parish house for St. Peter's Church, Geneva, N. Y., $22,000.

Bathbone, Caroline S., New York, bequests for founding and maintaining home for aged and infirm persons, at Evansville, Ind., ground and money, aggregating $70,000; to the General Clergy Fund, $8,430; Domestic and Foreign Mission Society of the Protestant Episcopal Church, $7,375; St. Ann's Deaf-Mute Church, $1,100; and Church Mission Society for Deaf-Mutes, $520.

Beach, Archibald, Boston, bequests to charitable institutions in Boston, Bedford, and Wellesley, a total of $35,000.

Beld, Daniel R., New York city, gift to the United Presbyterian Congregation of Richmond, Ind., a new church edifice, cost with ground, $100,000.

Beyburn, Mrs. Rebecca, Baltimore, Md., bequest to the Catholic University of America, Washington, D. C., for general expenses, $20,000.

Rhinelander, Miss Berens, New York city, gift to Church of the Ascension, $50,000.

Rice, William Marsh, New York, bequest to Rice Institute of Houston, Tex., the bulk of his estate of $8,000,000.

Bible, Mrs. Crossman, New York, bequest to Brooklyn Home for Aged Men, the bulk of her property, valued at $4,000,000.

Bishop, Edward Payson, president of the Santa Fé Railroad Company, gift to the Young Men's Christian Association of Topeka, Kan., for a new building, conditioned on the association securing the site and $10,000, $20,000.

Roberts, Mrs. Clara, Philadelphia, Pa., gift to Haverford College, a new assembly hall, cost $50,000; and the same institution, her husband's large collection of autographs.

Robertson, Thomas D., Rockford, Ill., bequests to Rockford College, Beloit College, American Board of Commissioners for Foreign Missions, each $5,000; Rockford Hospital Association, Chicago Theological Seminary, Congregational Home Missionary Society of New York, and American Missionary Association, each $3,000; and American Sunday-School Union, American Bible Society, and Congregational Church Building Society, each $1,000.

Robinson, James F., Rock Island, Ill., bequests to Northwestern University, about $200,000; and the American University at Washington, a considerable but undetermined part of his property.

Rockseller, John D., New York, gifts to the University of Chicago, for real estate, $1,000,000; and as his regular Christmas offering, $1,000,000; General Education Board, to promote education in the South, $1,000,000; Harvard University, for a new medical school, $1,000,000; Teachers' College, New York, as a thank-offering, $500,000; Bryan Mawr College and Cornell University, each $250,000; Rochester Theological Seminary, $200,000; and a duplication of gifts made to the Seminary by Jan. 1, 1902, which amounted to $100,000; Proctor, Mrs. Newton, $150,000; Wellesley College for a heating and ventilating plant, $150,000; Adelphi College, $125,000; Barnard College, $250,000; Brown University, $75,000; Olivet Baptist Church, $15,000. The educational gifts were conditional on specified amounts being otherwise raised during 1902, which was done.

Boggs, Henry H., New York, gifts for a home for orphan children adopted by the Unitarian Church of the Messiah, the old Morris Mansion, Morris Heights, valued at over $150,000; and to the Unitarian Church in Fairhaven, a set of chimes.

Boggs, Jacob B., Paterson, N. J., bequest to Metropolitan Museum of Art, his residuary estate, estimated at $5,000,000.

Boot, Anna H., Orange, N. J., bequests to the Society of the New Jerusalem, of Orange, $5,000; Orange Memorial Hospital, Orange Training School for Nurses, Orphan Home Society of East Orange, Burnham of Associated Charities, House of the Good Shepherd, and the Woman's Club of Orange, each $500; and the Society of the New Jerusalem, the income of her residuary estate.

Russell, Charles Hazen, Brooklyn, N. Y., gift to Wells College, memorial window.
GIFTS AND BEQUESTS.

Bust, Mrs. Nancy E., Boston, bequests to Addison Gilbert Hospital, Gloucester, Mass., unconditionally, $10,000, and the reversion of $15,000; Children's Hospital, Perkins Institute for the Blind, and Kindergarten for the Blind, all in Boston, each the reversion of $5,000; and 15 other institutions, an aggregate of $25,000.

Russian Residents, New York city, gifts for the erection of the Russian Orthodox Church of St. Nicholas (there dedicated Nov. 25, 1902), aggregating about $100,000.

Byan, Thomas F., New York, gift to the Roman Catholic diocese of Richmond, Va., for the erection of the Cathedral of the Sacred Heart, $250,000.

Byersen, Martin A., Chicago, Ill., gift to the city of Grand Rapids, Mich., for a library, $20,000.

Byler, Mrs. Mary E., Paterson, N. J., gift to the city, to replace the Paterson Library, originally built by her and destroyed in the great fire of Feb. 15, 1862, $10,000.

Sage, William H., Albany, N. Y., gift to Cornell University, of a stone pulpit for Sage Chapel. St. Paul's Methodist Episcopal Church, New York, gifts from friends, toward paying the church debt, $25,000.

Sather, Mrs. Jane K., San Francisco, gift to the University of California, a gateway and bridge, cost $10,000.

Sayles, Frederick C., Pawtucket, R. I., gift to the city, the Deborah Cook Sayles Memorial Free Library.

Secord, Jacob H., New York, gifts to the Jewish Theological Seminary, New York, a site and building for the new seminary; New York Public Library, for the Semitic department, $20,000; Hebrew Sheltering Guardian Society, $10,000; and Cooper Union, for scholarships, $5,000.

Schwab, Charles M., New York and Pittsburgh, President of the United States Steel Corporation, gifts for the erection of a church for St. Thomas's Roman Catholic congregation at Bradock, Pa., $70,000; to Pennsylvania State College, $65,000; and to Mount Aloysius Academy, Crescon, Pa., an alumni and assembly hall, cost $75,000.

Scott, Charles, Sr. and Jr., Philadelphia, Pa., joint gift to Wesleyan University, for a physical laboratory, $75,000.

Sherer, Mrs. John Blair, New York, gift to the Second Presbyterian Church of Saratoga, a parsonage, cost $10,000.

Selliman, Jefferson, New York, gift to Mount Sinai Hospital, an electrical ambulance.

Severance, L. H., Cleveland, Ohio, gift to the University of Wooster (Ohio), for a new building fund, $75,000.

Shamley, John F., Newark, N. J., gift to the building fund of the Cathedral of the Sacred Heart there, $5,000.

Shaw, Alexander, Baltimore, bequests to the Woman's College of Baltimore, $50,000; and to Pennington Seminary, $10,000.

Sheffield Scientific School, gift from a friend, a new laboratory of mineralogy, named Kirtland Hall, cost $150,000.

Sheldon, Henry King, Brooklyn, N. Y., bequests to Silver Lake Presbyterian Church, $15,000; Brooklyn Philharmonic Society, and Brooklyn Institute, for concerts, each $10,000; and Brooklyn Institute, unconditionally, $2,500.

Sherman, Mrs. Hannah N. L., Lawrence, L. L., gift to New York Post-Graduate Hospital and College, for a ward for nervous diseases, $25,000.

Siegel, Henry, New York, gift to Stony Wold Sanitarium, for a dormitory, $20,000.

Stillman, H. B., Cohoes, N. Y., gift to Mount Hermon School, Northfield, Mass., for improving Stillman Science Hall, $10,000.

Simon, Mrs. Clara, New York, gift to Lebanon Hospital, $50,000.

Simons, James D., Jersey City, N. J., gift to Grace Church of that city, $5,000.

Small, Mrs. William, Leavenworth, Kan., gift for an Old Ladies' Rest in that city, $30,000.

Smith, George, St. Louis, Mo., bequest to Harvard University, for 3 new dormitories, $450,000.

Smith, James Henry, New York, gift to the Metropolitan Museum of Art, Ruben's Holy Family, valued at $50,000.

Smith, James, Newark, N. J., gift to the Cathedral of the Sacred Heart now building there, $25,000.

South Orange (N. J.) Methodist Episcopal Church, gifts from friends, a total of $15,000.

Sower, Charles G., Philadelphia, Pa., bequest to charitable institutions, $30,000.

Spence, W. W., Baltimore, Md., gift to Johns Hopkins University, toward endowment fund, $50,000.

Spreckels, Claus, San Francisco, gift to the University of California, for special books, $11,075.

Spreckels, Rudolph, San Francisco, gift to the University of California, for a physiology hall, $25,000.

Steele, Mrs. Esther Baker, Syracuse, N. Y., gift to Syracuse University, $10,000.

Stetson, Francis Lynde, New York, gift to Williams College, $60,000.

Stillman, James, New York, gift to Harvard University, to found a Chair of Anatomy, $100,000.

Stratton, Winfield Scott, Colorado Springs, Col., bequest for a Home for the Poor, the bulk of his estate, valued at $14,000,000.

Stuart, William A., Brooklyn, N. Y., bequest for a Masonic building in that borough, $125,000.

Studebaker, Clem, family of the late, South Bend, Ind., gift to the Epworth Hospital there, to pay for a new building, $75,000.

Swift, Gustaveus F., Chicago, gift to debt-raising fund of local Methodist Episcopal churches, $10,000.

Swope, Thomas H., Kansas City, Mo., gift to Central University, Danville, Ky., $25,000.

Teachers College, New York, gift from a friend, for a new gymnasium, $250,000.

Temple Emanuel, Congregation of, New York, gift to Columbia University, for endowment of a fellowship in honor of the Rev. Dr. Gustav Gottheil, $15,000.

Thomas, George C., Philadelphia, gift for building for parish work in connection with the projected Protestant cathedral in Manila, $25,000.

Thompson, Mrs. Mary, New York, gifts to Williams College, a chapel; and to Vassar College, a library building.

Thompson, Mrs. Mary Shaw. See Pratt, Mrs. Mary Morris.

Tompkins, Mrs. Cornelia C., New York, bequests to Tuskegee (Ala.) Normal School, $20,000; Children's Aid Society, $10,000; and Woman's National Sabbath Alliance, Woman's Executive Committee of Home Missions of the Presbyterian Church, and American Seaman's Friend Society, each $5,000.

Toussaint, Orson V., Washington, bequest to Williams College, available on the death of his widow, his estate, estimated at $70,000.

Tower, Charlemagne, gift to the Philadelphia Library, 2,500 Russian books.
Tuck, Edward, an American citizen resident in Paris, France, gift for the benefit of the American colony in Paris and American visitors to that city, the American Hospital erected on the most approved American models and managed by American physicians and nurses.

Tully, Miss Cecilia, Boston, Mass., bequests to Watertown College, $30,000; St. John's Seminary, $10,000; Apostolic College, County Limerick, Ireland, $5,000; Boston College, for scholarships, $4,000; Working Boys' Home, $2,000; Religious Society of the Sisters of Mount Carmel, and the Oblate Fathers Novitiate at Dublin, each $1,000; and Little Sisters of the Poor, Home for Destitute Catholic Children, House of the Good Shepherd, and Carney Hospital, each $500.

Turkey, Sultan of, gift to the University of Pennsylvania, through Prof. Herman V. Hilprecht, a collection of Babylonian antiquities, said to be the richest in the world.

Tufts College (Abae) Institute, gift from a friend, for a girls' dormitory, $25,000.

University of California, gift from friends, $30,000; the Alumni Association, $9,000; and a friend for salary of the professor of physiology for three years, $15,000.

Upson, Dr. Anson Judd, Utica, N. Y., bequest to the University, $5,000.

Vanderbilt, Mrs. Cornelius, New York, gift to St. Bartholomew's Church, an entire new front, cost $200,000.

Vanderbilt, Frederick W., New York, gift to Sheffield Scientific School of Yale University, for a new dormitory, land and money, value about $500,000.

Vere Rennselear, Mrs. Mary Thorn, New York city, bequest to her husband and sister, the interest to be used in aiding the poor and sick, $25,000.

Vassar College, Poughkeepsie, N. Y., gifts from friends, a library building and a chapel; from Alumni Endowment Committee, $9,000; for the Abbot and Beach Scholarships, each $8,000; and for a scholarship founded by the Association of Students of Miss Hersey's School, Boston, Mass., $5,000.

Vickery, Percy O., Augusta, Me., bequest to the Maine Teachers' Library, $5,000.

Von Paps, Ernest, New York, bequest to the German Hospital, $5,000.

Voorhees, Ralph, Clinton, N. J., gifts to Rutgers College, Library, $10,000; New York, $1,000; to John Hopkins University, $2,000; St. John's Guild Floating Hospital, Hebrew Orphan Asylum, Montefiore Home for Incurables, Home of the Good Shepherd, Emanuel Sisterhood Day Nursery, College for Catholic Travelers, and Skin and Cancer Hospital, each $500; Society for Prevention of Cruelty to Children, and Society for Prevention of Cruelty to Animals, each $50; and Actors' Fund, $200.

Wellstock, H., San Francisco, gift to the University of California, for its College of Commerce, $5,000.

Wellesley College, gift from Classical Society of a society house in the style of a Roman villa.

Wells College, Aurora, N. Y., gifts from 8 of the Alumni, for a recreation hall, an honor to Dean Helen Fairchild Smith, $15,000; from the class of 1902, a memorial window, and other gifts, aggregating $2,000.

Wells, Daniel, Chicago, Ill., bequests to 6 local charities, each $1,000.

Wetherill, Henry P., New York, gift to the University Settlement, a new building.

Wesleyan University, Middletown, and the Children's Aid Society, Orphans' Home and Asylum of the Protestant Episcopal Church, Colored Home and Hospital, Home for Old Men and Aged Couples, New Haven, $50,000; New York, $50,000; and to St. Luke's Home for Indigent Christian Females, all of New York city, each $25,000; New York Society for Relief of the Ruptured and Crippled, $15,000; and Samaritan Home for the Aged, $10,000.

Welsh, Mrs. Anna, N. Y., gift to Henry McCauley, Jr., fund for education of candidates for the Catholic priesthood, $450,000.

Wanamaker, John, Philadelphia, Pa., gift to Bethany College, Philadelphia, Pa., a new building, cost $300,000.


Waters, Mrs. Sarah Ann, New York city, bequests to the American Female Guardian Society and Home for the Friendless, improved real estate valued at $15,000, and to the Women's Auxiliary of the Guild for Crippled Children of the Poor, $1,000.

Webb, Mrs. Henrietta A., widow of William H. Webb, founder of Webb Academy and Home for Shipbuilders, New York, bequests to the academy, about $1,000,000; Hospital for Ruptured and Crippled, and Daisy Fields Home for Crippled Children, at Edgewater, N. J., each $1,000; and Night Refuge, Children's Aid Society, and Little Mothers of New York, each $500.

Webb, William Seward, M. D., New York city, gift to the University of Vermont, for purchase of the herbarium of Cyrus G. Pringle, $6,000.

Webber, Mrs. A. S., Nashville, Tenn., gift for a polytechnic institute there, $15,000.

Weeks, Mrs. Augusta J. S., Patchogue, L. I., bequest to that village, ground for a public park.

Weeks, George W., Clinton, Mass., bequests to Clinton Hospital, $30,000; the First Unitarian Church of Clinton, $22,000; the city of Clinton, for the site of a Carnegie Library, $15,000, for shade trees, $3,000, and to provide a course of lectures, $10,000; the Carnegie Library fund for the purchase of scientific books, $10,000 (the interest only to be used), and for books and pictures for the Children's Room, $3,000; and Woodland Cemetery, $10,000.

Well, Theodore G., New York, bequests to Mount Sinai Hospital, $2,000; Five Points House of Industry, St. Francis Hospital, Children's Aid Society, and A. C. Church, $1,000; St. John's Guild Floating Hospital, Hebrew Orphan Asylum, Montefiore Home for Incurables, Home of the Good Shepherd, Emanuel Sisterhood Day Nursery, College for Catholic Travelers, and Skin and Cancer Hospital, each $500; Society for Prevention of Cruelty to Children, and Society for Prevention of Cruelty to Animals, each $50; and Actors' Fund, $200.

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University of Pennsylvania, an increase of his 
endowment, $300,000, making it $500,000.

Wayne, Robert C., Louisville, Ky., bequests 
to local charities, $40,000.

Wheelock, Jerome, Worcester, Mass., bequests 
to the town of Grafton, Mass., for a town hall, 
$100,000; the city of Worcester for a bronze 
statue of himself, $100,000; Harvard University 
and Yale University, each $100,000; and to local 
charities, $50,000.

Whipple, Mrs. Evangeline M., Faribault, 
Minn., gift to the Episcopal Cathedral of Our 
Merciful Saviour, as a memorial to Bishop Henry 
B. Whipple, a set of chimes, cost $10,000.

White, Francis T., New York, gift to Earlham 
College, Richmond, Ind., conditional on the raising 
of $20,000 more to free the college from debt, 
$25,000.

White, Henry, gift to Johns Hopkins Uni-
versity, toward endowment fund, $5,000.

Wildener, Peter A. B., Philadelphia, Pa., gift 
for building, equipment, and endowment of 
Wildener Memorial Training School for Crippled 
Children, $2,000,000.

Young, A., Fountain Hill, Pa., gift to 
Lehigh University, toward equipment of its 
mechanical laboratory, $5,000.

Willis Avenue Methodist Church, Bronx 
branch, New York, gifts from friends to extin-
guish debt, $43,000.

Winthrop, Mrs. Mary J., New York city, be-
quest to Princeton (N. J.) Theological Seminary, 
his entire residuary estate, estimated at $1,500,-
000.

Woman's Christian Temperance Union, 
Passaic, N. J., gifts from friends for a hall, 
$15,000.

Woman's College, Baltimore, gift from trust-
ees of the great Methodist thank-offering fund, 
all the contributions paid in the limits of the 
Baltimore Conference, exceeding $44,000.

Wood, H. Holton, and wife, Boston, gift to 
the city of Derby, Conn., a public library, cost 
$50,000.

Woodward, Col. Robert B., Brooklyn, N. Y., 
gift to Brooklyn Institute, for 2 funds, each 
$25,000.

Wooster (Ohio), University of, gifts from 
friends toward rebuilding the university, $400,000.

Wright, J. Hood, Memorial Hospital, New 
York city, gift from friends, $10,929.25.

Wyman, William, Baltimore, Md., and 
other persons, a joint gift to Johns Hopkins University, 
for a new site for the university, 175 acres in the 
northern suburbs of Baltimore, valued at $1,000,-
000.

Yale University, gift from the class of 1876, 
to establish an Arthur Twining Hadley scholar-
ship, $5,000.

Young Men's Christian Association, Brook-
lyn, N. Y., gift from friends, for a new building, 
$150,000.

Young Men's Christian Association, Doug-
las island, Alaska, gift from three mining com-
panies there, a furnished building, cost $6,000; 
opened on Christmas.

Zabriskie, H. Lanston, gift to Wells College, 
for equipment of building given by Henry A. Mor-
gran, $25,000.

Ziegler, William, New York, gift to Barnard 
College, $10,000.

GRANGE, NATIONAL. Numerically the 
Grange reached its highest point about 1875, when 
it had a paid-up membership of 750,000. Im-
mEDIATEly after this a serious decline set in, and 
by 1886 the membership had been reduced to 100-
000. Moreover, by the date last named the Grange 
had almost ceased to exist in the South and in the 
Middle West. Iowa, Missouri, and Indiana, each 
of which had about 2,000 granges in 1875, had 
only a few score in 1888. Other organizations 
came upon the field and took the public eye. 
These things gave an impression that the Grange 
was extinct. But its membership never has gone 
much below the hundred-thousand mark; it never 
has missed an annual meeting; there has always 
been a reserve fund in the treasury; and since 
1888 there has been a steady, and even a remark-
able growth. The present membership is at least 
230,000. During the last fiscal year about 16,000 
members have been added, and about 350 new 
subordinate granges organized. In Michigan the 
order has increased since 1894 from 220 granges, 
with about 8,000 members, to 250 granges, with 32-
000 members. At present New York is the largest 
grange State, with about 80,000 members; Maine 
has about 35,000, and New Hampshire ranks fourth 
with about 28,000. The Grange is still strongest 
in New England, where it has about 100,000-
members; and, considering agricultural resources 
and population, it is weakest in the Middle West. 
The Grange was originally intended to minister 
to the social and educational needs of the farming 
class. Its founders never planned that it should 
be a business agency or a political party. But 
the so-called " Granger movement " did not get 
right off with the real Grange move-
ment—in the '70s swept the Grange off its feet. 
Or perhaps it would be more correct to say that 
the intensity of feeling on the part of the farmers 
toward the railroads and the middlemen caused 
the financial and legislative purposes of the 
Grange to be vastly overemphasized. And the 
decline of the Grange was largely because of dis-
appointment that it did not yield as prompt re-
turns along these lines as many of its members 
had looked for. In New England, however, this 
" Granger movement " did not take place. There 
the Grange grew more slowly, but it grew on its 
merits. Its social and educational purposes were 
constant emphasized, and it gradually took its 
place as a recognized social institution. The same 
kind of growth has more recently taken place in 
New York, Pennsylvania, Ohio, and Michigan.

The social work of the Grange is maintained 
throughout, through its frequent meetings, so-
cial programs, picnics, etc. The subordinate or 
local grange meets semimonthly, and sometimes weekly. The 
county or "Pomona," grange meets monthly or 
quarterly. The State grange meets biennially, 
meeting with a large number of delegates and visitors 
from all parts of the State. The National Grange, 
although a small body officially, draws a large 
number of visiting members. All these meetings 
give ample scope for social entertainment and 
culture. The more truly educational work of 
the order is encouraged through the presentation of 
library programs at each meeting of the county 
and subordinate granges. The lecturer is virtually 
the program committee, and through the efforts 
of the national and State lecturers this form of work 
is being rapidly systematized and extended. The 
Grange also takes an active part in legislative af-
fairs, but always in a non-partisan way. Public 
questions are constantly discussed at the meet-
ings, and committees present the views and wishes 
of the order before Legislatures and Congress. 
Not a little legislation, both State and national, 
has been secured through the assistance, and often 
by the initiation of the Grange. The Grange also 
renders financial assistance to the farmer, largely 
through cooperative purchases and fire insurance. 
The State grange makes contracts for goods at 
reduced rates with wholesale or jobbing houses.
The orders come through the subordinate grange, the goods being paid for on delivery. Binding-twine, fertilizers, farm machinery, are perhaps the leading articles purchased, although trade contracts exist for almost everything the farmer needs. Grange fire-insurance exists in a number of the States, the best example being in New York, where about $100,000,000 worth of risks is carried by Grange companies, at an average annual rate of about $1 a thousand.

The annual meeting of the National Grange in 1902 was held in Lansing, Mich., Nov. 12-21. Delegates from 28 States were present. As a whole, the meeting was of interest chiefly because of the showing made in the growth of the order. So far as any reports or resolutions are concerned, there was no unusual or radical action. The nearest approach to this was a resolution favoring Government ownership of railways. This resolution was not pressed, however, and did not come up for debate. The report of the Committee on Transportation was a vigorous arraignment of railway discrimination, and Attorney-General Knox, Commissioner Prouty, and Prof. Ely were quoted to illustrate the prevalence and results of this discrimination. The Grange had a good deal to do with securing the Interstate Commerce Commission, and is still in favor of giving that commission ample powers. It is undoubtedly the sentiment of the Grange that all possible resources along this line should be exhausted before Government ownership is seriously discussed.

So far as trusts are concerned, the Grange three years ago approved the following recommendations unanimously, and this statement may be said to represent the present Grange sentiment as to trust legislation:

"It must be made impossible for so-called trusts to accumulate millions by selling watered stock without adding to the wealth of the country. Therefore, we recommend:

"First, official inspection of all corporations, as in case of national banks. No corporation should be tolerated whose books can not bear such inspection.

"Second, prohibition of all rebates or discriminations by public carriers.

"Third, taxation of all capital stock.

"Fourth, all capital stock should be paid in full.

"Fifth, severe penalties for violation of law—first, by forfeiture of charter, fine, and imprisonment; second, by impeachment, fine, and imprisonment of all public officials whose duty it may be to enforce the law and who fail to perform that duty."

The National Grange does not prepare a general platform expressing its stand on public questions. The nearest approach to this is contained in the following quotation from the address of National Master Jones at the last session of the National Grange, which may be considered the official statement of the position of the National Grange on the subjects named:

"I again call attention to the legislation demanded by the agricultural interests of the country, considered, approved, and urged at the thirty-third, thirty-fourth, and thirty-fifth annual sessions of the National Grange. For the arguments in support of the legislation demanded I respectfully refer to the Journal of Proceedings of the thirty-third, thirty-fourth, and thirty-fifth annual sessions, and the action of the various committees and the addresses of the Legislative Committee to the Congress of the United States.

"1. Free delivery of mail in the rural districts, and that the service be placed on the same permanent footing as the delivery of mail in the cities, and that appropriations be commensurate with the demands and the benefits of the service.

"2. Provide for postal savings-banks.

"3. Submit an amendment to the Constitution providing for the election of United States Senators by direct vote of the people.

"4. Submit an amendment to the Constitution granting the power to Congress to regulate and control all corporations and combinations, preventing monopoly and using the corporate power to restrain trade or arbitrarily establish prices.

"5. Enlarge the powers and duties of the Interstate Commerce Commission as provided in Senate bill No. 1450 [the Cullom bill].

"6. Regulate the use of shoddy.

"7. Enact pure food laws.

"8. Provide for the extension of the markets for farm-products equally with manufactured articles.

"9. The enactment of the antitrust law, clearly defining what acts on the part of any corporation would be detrimental to public welfare.

"10. Speedy construction of the Nicaragua Canal by the United States [secured by the passage of the Isthmian Canal bill].

"11. The speedy construction of a ship-canal connecting the Mississippi river with the Great Lakes and the Great Lakes with the Atlantic Ocean.

"12. Revising the fees and salaries of all Federal officers, and placing them on a basis of similar service in private business.

"13. Protect the dairy interests by the passage of House bill No. 3717 [secured by the enactment into law of the Great Grange, which may be considered the official state-
The reigning sovereign is Edward VII, King of the United Kingdom and Ireland and of the British dominions beyond the seas and Emperor of India, eldest son of Victoria I and Prince Albert of Saxe-Coburg-Gotha, born Nov. 9, 1841, who succeeded to the throne on the death of his mother, Jan. 22, 1901. The heir apparent is George, Prince of Wales, son of King Edward and Alexandra, daughter of King Christian IX of Denmark, born Jan. 3, 1885, married on July 6, 1893, to Victoria, daughter of the Duke of Teck.

The power to legislate for the United Kingdom and, except in so far as the power has been delegated to local legislative authorities, for all the members of the British Empire is vested in the British Parliament, consisting of a House of Lords and a House of Commons. Members of the House of Lords are the princes of the royal blood; spiritual lords, who are the metropolitan bishops of ancient English sees; hereditary peers of Ireland, of Great Britain, and of the United Kingdom; representative peers of Scotland, elected by their fellow peers for the duration of Parliament; representative peers of Ireland, elected for life; and life peers and law lords. The number of peers on the roll of Parliament in 1901 was 592. The House of Commons contains 670 members, elected in boroughs, counties, and universities by the votes of all male householders and lodgers, by secret ballot. England, with 5,389,865 electors in 1901, is represented by 498 members, of whom 253 are elected by 3,046,900 county electors, 237 by 2,325,293 borough electors, and 5 by 17,702 university electors; Scotland, with 669,890 electors, by 72 members, of whom 39 are elected by 382,929 county electors, 31 by 294,653 borough electors, and 2 by 19,597 university electors; Ireland, having a total of 735,851 electors, by 103 members, of whom 85 are elected by 622,465 county electors, 16 by 109,087 borough electors, and 2 by 4,713 university electors.

The Committee of Ministers, called the Cabinet, representing the majority for the time being in the House of Commons, exercises in reality the authority that is nominally vested in the Crown. The Prime Minister chooses his colleagues and dispenses the patronage of the Crown; he initiates the policy of the Government in several departments by the measures suggested in their several departments by the other ministers, and when his policy or acts encounter the displeasure of Parliament, manifested by an adverse vote on a Cabinet question, the want of confidence, he either resigns with the rest of the Cabinet forthwith or he appeals to the country by dissolving Parliament and ordering new elections. When a Cabinet resigns the retiring Prime Minister advises the sovereign as to the selection of the statesman most competent to form a new Government, usually the leader of the Opposition in the House of Commons. The Cabinet formed on Nov. 1, 1900, and continued in office on the accession of Edward VII, was composed in the beginning of 1902 as follows: Prime Minister and Lord Privy Seal, the Marquis of Salisbury; Lord President of the Council, the Duke of Devonshire; Lord High Chancellor, the Earl of Halsbury; Secretary of State for Foreign Affairs, the Marquis of Lansdowne; Chancellor of the Duchy of Lancaster, Lord James of Hereford; First Lord of the Treasury, Arthur J. Balfour; Secretary of State for Home Department, C. T. Ritchie; Attorney General, Sir Michael E. Hicks-Benck; Secretary of State for the Colonies, Joseph Chamberlain; Secretary of State for War, W. St. John F. Brodrick; Secretary of State for India, Lord George Hamilton; First Lord of the Admiralty, Lord Burgh; President of the Local Government Board, W. H. Long; President of the Board of Trade, Gerald Balfour; Lord Lieutenant of Ireland, Earl Cadogan; Lord Chancellor of Ireland, Lord Ashbourne; Secretary for Scotland, Lord Balfour, of Burleigh; First Commissioner of Works, A. Akers-Douglas; Lord President of the Board of Agriculture, A. J. Balfour; Postmaster-General, the Marquis of Londonderry.

Area and Population.—The area of the divisions of the United Kingdom and their population at the census of April 1, 1901, are given in the following tabular:

<table>
<thead>
<tr>
<th>Division</th>
<th>Square Miles</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>England and Wales</td>
<td>58,809</td>
<td>22,990,070</td>
</tr>
<tr>
<td>Scotland</td>
<td>59,175</td>
<td>4,472,108</td>
</tr>
<tr>
<td>Ireland</td>
<td>38,325</td>
<td>4,456,246</td>
</tr>
<tr>
<td>Isle of Man</td>
<td>297</td>
<td>54,708</td>
</tr>
<tr>
<td>Channel Islands</td>
<td>73</td>
<td>29,941</td>
</tr>
<tr>
<td>Total</td>
<td>140,897</td>
<td>41,006,328</td>
</tr>
</tbody>
</table>

The annual rate of increase between 1891 and 1901 was 1.21 per cent. in England, 1.33 per cent. in Wales, 1.11 per cent. in Scotland, and 0.19 per cent. in the Channel Islands, while the population of Ireland decreased at the average rate of 0.53 per cent. per annum. The population in England and Wales consisted of 15,721,728 males and 16,804,347 females; in Scotland, 2,173,753 males and 2,296,348 females; in Ireland, 2,197,739 males and 2,258,807 females; in the Isle of Man, 22,486 males and 29,272 females; in the Channel Islands, 45,205 males and 50,636 females. The total population of the United Kingdom in 1900 England contained 74.1 per cent., Wales 4.1 per cent., Scotland 10.8 per cent., Ireland 10.7 per cent., the Isle of Man 0.1 per cent., the Channel Islands 0.2 per cent. In 1851 England contained 61 per cent. of the total population, Wales 3.6 per cent., Scotland 10.4 per cent., Ireland 23.7 per cent., the Isle of Man 0.2 per cent., the Channel Islands 0.3 per cent. Of the total population of England and Wales 24 per cent. in 1901 lived in 9 towns which had 250,000 inhabitants, and upward of 4,586,541 inhabitants within the registration area, 5,580,618 including the outer ring. The population of the metropolis has increased nearly fivefold in a century, but for the last half century the rate of increase has declined, except in the suburban districts of greater London, which have grown rapidly. The population of the other towns was: Birmingham, 684,947; Manchester, 543,909; Birmingham, 622,182; Leeds, 429,053; Sheffield, 380,717; Bristol, 328,842; Bradford, 279,809; West Ham, 267,308. Towns having from 100,000 to 250,000 contained 10 per cent. of the population. Kingston-upon-Hull had 240,018 inhabitants; Nottingham, 239,753; Salford, 220,936; Newcastle, 214,803; Leicester, 211,574; Portsmouth, 189,160; Bolton, 168,256; Cardiff, 164,420; Sunderland, 146,598; Oldham, 137,238; Croydon, 133,885; Blackburn, 127,527; Brighton, 125,418; Preston, 112,982; Norwich, 111,729; Birkenhead, 110,920; Gateshead, 109,926; Plymouth, 107,509; Derby, 105,785; Halifax, 104,933; Southampton, 104,911. The urban population of England and Wales was 77 per cent. of the total population, the rural population 23 per cent. in 1891. In Scotland, 65.3 per cent. of the population lived in town districts, 22 per cent. in rural districts on the mainland, and 2.7 per cent. on the islands. The town districts increased 15.12 per cent. in ten years,
and the rural districts of the mainland increased in population 0.87 per cent., but on the islands the population decreased 3.4 per cent., the average increase for the whole of Scotland being 11.09 per cent. Glasgow in 1901 had 735,908 inhabitants; Edinburgh, 316,478; Dundee, 148,341; Aberdeen, 143,722. In Ireland 23.2 per cent. of the people lived in towns of 10,000 inhabitants and over. Dublin had 298,328 inhabitants, but in the metropolitan police district there were 379,861; Belfast had 348,876.

The number of marriages in England and Wales in 1900 was 557,139; of births, 926,304; of deaths, 597,459; excess of births, 328,845. In Scotland the number of marriages was 32,449; of births, 131,355; of deaths, 82,267; excess of births, 49,088. In Ireland the number of marriages was 21,330; of births, 101,459; of deaths, 87,806; excess of births, 13,653. The emigration from the United Kingdom in 1901 was 302,484, against 296,561 in 1900. Of the emigrants 111,922 were English, 20,924 Scotch, 39,184 Irish, and the rest foreigners. The immigration of British and Irish was 172,140, against 168,825 in 1900. Of these 104,257 were bound for the United States, 15,908 for Canada, 10,716 for Australia, 4,334 for New Zealand, 2,094 for South Africa, 1,310 for France, 257 for the Argentine, 1,034 for Argentina, 2,875 for Brazil, 2,546 for Cape Colony and Natal, and 13,383 for other places. Of the emigrants who sailed in 1900 from British ports, 177,441 were males and 121,514 females. Of those of British and Irish origin, 96,102 were males and 72,723 females. There were 97,637 immigrants of British and Irish origin in 1900, so that the net decrease of the British population by immigration was only 71,185. The total number of immigrants was 175,747, leaving the net emigration 129,814.

FINANCES.—The budget estimate of revenue for the year ending March 31, 1901, was £217,250,000, and the estimated expenditure, including supplementary estimates, was £184,509,027. The actual receipts for the year were £230,384,084, and the actual expenditure was £233,952,294. The year ended with a deficit of £5,587,820, to be added to one of £13,882,502 for 1899. The revenue collected by the Government in 1901 was £219,000,000, and of this sum £90,000,000 were paid to local taxation accounts, leaving for the exchequer £130,384,084. Taxation produced 84 per cent. of the whole. The net receipts from customs duties were £230,270,887, of which £239,909,768 were collected from tobacco, £6,264,515 from tees, £2,344,907 from rum, £1,417,464 from brandy, £1,007,599 from other spirits, £1,488,483 from wines, £6,244,336 from China tea, £1,159,526 from tea, £7,514,181 from coffee, £194,101 from raisins, £175,984 from cocoa, and £285,877 from other articles. The yield of excise duties was £23,268,588, of which £19,506,000 were obtained from spirits, £13,490,620 from beer, £331,214 from railroads, £250,256 from license duties, and £7,808 from other sources. The estate duty produced £8,488,872, the temporary estate duty £29,035, the probate duty £42,529, legacy duty £3,092,380, succession duty £293,018, corporation duty, £14,840; total from death duties, etc., £12,483,202. The yield from stamps, etc., was £7,880,537, of which deeds produced £3,018,437, receipts £1,447,447, bills of exchange £920,000, patent medicines £297,480, licenses £170,302, the duty on the capital of companies £270,001, bonds to bearer £191,190, insurance £260,372, other sources £447,005. The yield of the land tax was £265,809; of the house duty, £1,701,083; of the property tax, £2,377,741; of the income tax receipts, £20,889,155 in all. £13,776,884 came from the post-office. £23,380,589 from the telegraph service £494,444 from Crown lands, £630,075 from interest on Suez Canal shares, and £2,237,161 from miscellaneous sources, including £947,553 from fee stamps, £923,907 from the mint, £178,188 from the Bank of England, and £187,423 from various sources. The expenditure in 1901 under the head of consolidated fund charges was £2,557,264, of which £15,106,532 were for interest on the funded debt, £2,756,612 for terminable annuities, £415,254 for interest of unfunded debt, and £174,310 for management of the debt, making the national debt service £18,462,708, not including £1,382,780 of interest on the war debt outside of the fixed charge. Other consolidated fund charges were £409,452 for the civil list, £259,305 for annuities and pensions, £78,872 for salaries, etc., £515,548 for courts of justice, and £265,500 of miscellaneous payments. The expenditure for the supply services was £161,035,000, of which £91,505,000 went for the army, £204,100 for ordnance factories, £25,920,000 for the navy, £25,500,000 for civil services, £25,824,000 for customs and internal revenue, £2,903,000 for the post-office, £2,737,000 for the telegraph service, and £771,000 for packet service. In addition to the ordinary expenditures, an equal amount of £2,931,443 was paid in subsidies to the colonies, £2,293,567 were expenditures under the barracks act of £50,687, under the telegraph acts, £1,060,000; under the naval works act, £2,135,000; under the military works act, £1,000,000; under the land registry act, £25,000; total, £4,914,587. The money raised by creating additional debt under the war loan acts of 1900 amounted to £32,163,300; and bills issued by the exchequer for £24,133,000. The balance in the exchequer on April 1, 1900, was £3,517,047. The gross receipts during 1901 were £241,176,086, and the gross disbursements were £239,086,618 leaving a balance of £5,999,418 on March 31, 1901. The cost of the British army for the year ending March 31, 1902, was estimated at £287,153,000, not including £23,886,939 for appropriations in aid. The expenditure on effective services was £283,970,500, including £15,677,000 for transport and remounts, £18,782,000 for provisions and forage, £12,400,000 for the militia, £1,230,000 for the auxiliary volunteer corps, £275,000 for the yeomanry, £650,000 for the colonial contingents, £650,000 for the foreign service, £1,230,000 for the admiralty and volunteers in the reserves, £200,000 for the regular army reserve, £1,088,000 for medical establishments, £24,900 for the chaplains' department, £119,200 for miscellaneous services, and £218,200 for miscellaneous services, and £305,000 for the War Office. For pensions, retired pay, and other non-effective services the disbursements amounted to £3,944,500. The estimated cost of the navy, not including £1,089,473 of appropriations in aid, was £30,575,500 in 1902, of which £14,676,000 went for ship-building and repairs, £5,760,000 for wages of officers, seamen, and marines, £5,919,700 for naval armaments, £1,802,000 for victualing and clothing, £79,000 for the Admiralty Office, £1,023,100 for works and buildings, £210,000 for medical establishments, £292,100 for the naval reserves, £1,060,000 for educational services, £65,800 for scientific services, £18,200 for militia, and £239,500 for the annual bonus for making a total of £28,603,000 for effective services, while for pensions, half-pay, etc., the expenditures were £2,271,000. The estimates for civil
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services in 1902 amounted to £23,630,150, of which £2,074,015 were for public works and buildings and £332,579 for salaries and expenses in the colonial departments, £12,790,743 for education, £1,651,967 for foreign and colonial services (including £480,032 for the diplomatic and consular service), £486,093 for the colonial service, £546,049 for Cyprus, Uganda, etc., and £75,860 for subsidies to telegraphs, £608,866 for non-effective and charitable services, and £29,444 for miscellaneous expenses. The income tax in 1902 was 14d. in the pound, estimated to produce £33,800,000. The gross amount of the annual value of property and profits assessed to income tax in 1900 was £788,023,003, having grown from £465,594,369 in 1871. The share of England in 1900 was £675,287,799 in Scotland, £75,935,542; of Ireland, £23,447,572. The annual value of lands assessed to income tax in 1900 was £37,110,545 in England, £593,250 in Scotland, and £27,477,216 in Ireland; total, £5,153,191,414. The annual value of houses was £153,193,144 in England, £26,063,967 in Scotland, and £4,573,120 in Ireland; total, £174,430,501. The annual value of railroads assessed to income tax was £20,357,717; of mines and quarries £4,107,082; of gasworks, £6,503,433; of water-work, £4,614,317; of canals, etc., £3,476,016; of iron-works and other public concerns, £129,398,488. Additional beer and spirit duties and excise licenses, and a share in the probate and estate duty are collected by the Government and paid over to the local authorities. The net receipts for the year ended 31, 1901, amounted to £2,201,893, of which £1,985,898 were the additional beer and spirit duty, £3,886,269 licenses, and £4,237,867 the share of probate and estate duties. The payments made to local taxation accounts in the same year amounted to £7,373,820, of which £8,310,789 were in England, £1,527,412 in Scotland, and £401,475 in Ireland. Out of a total revenue of £140,353,500 in 1901, including the local taxation revenue, £113,244,000 were contributed by England, £14,919,000 by Scotland, and £2,556,500 by Ireland, while £2,556,500 came from the public services, £4,505,400 from the local taxation accounts, and £193,331,000 the sum of £1,456,296,000 went for imperial services and £34,769,000 were expended on English, £2,651,000 on Scottish, and £7,306,062,000 on Irish railways.

The gross liabilities of the state on March 31, 1901, amounted to £765,723,878, of which £351,192,153 were funded debt, £61,077,469 the estimated capital value of terminable annuities, and £78,133,000 unfunded debt, making the total capital of the national debt £200,592,622. Other capital liabilities were £431,118 under the Russian Dutch loan act of 1891, £2,657,801 under the Russian Dutch loan act of 1891, and £35,779 under the public offices act of 1895 and 1897, £487,942 under the Royal Niger Company act of 1897, £2,216,077 under military works acts, and £23,600 under the land registry act of 1900; total, £14,731,256. The assets of the Government were Suez Canal shares of the market value of £25,800,000 and £21,720,000 of other assets, besides, 14,731,256. The assets of the Government were Suez Canal shares of the market value of £25,800,000 and £21,720,000 of other assets, besides, £5,596,918.

The revenue for 1902 exceeded the budget estimate of £142,455,000 by £43,450,000. The budget estimate of £23,600,000 for the new postal and telegraph services, to which £12,631,000 of supplementary estimates were added in consequence of the war, but savings reduced the total expenditure to £216,522,000, leaving a deficit of £52,524,000, which was provided for out of the surplus of £30,000,000 for 1901 which produced the net sum of £25,553,000, leaving a balance of £4,029,000. Out of the total expenditure for the year £23,187,000 went for war charges in South Africa, £3,367,000 of interest on the war debt. Deducting this, the expenditure for the war during the year was £29,830,000, of which £25,320,000 were military and £4,000,000 civil expenditure. Toward this £17,306,000 were contributed from the revenue, including £4,681,000 of revenue saved by the suspension of the sinking-fund. The total cost of the war up to March 31, 1902, was £215,034,000, made up of £4,967,000 of interest on the war debt, £164,407,000 of supply grants for South Africa, and £26,060,000 of supply grants for China. It was defrayed by £119,814,000 of loans and £45,420,000 paid out of revenue. The British share of the Chinese indemnity amounts to £5,000,000. Of the South African War debt, £30,000,000 are expected to be repaid from the wealth of the Transvaal. The receipts from tobacco and spirits in 1902 showed a large falling off owing to forestallments of duty in the previous year. The consumption has been, on account of the dearth of beer, which was counterbalanced by a large increase in the consumption of tea and cocoa. The sugar duty produced £2,300,000, exceeding the estimate by £1,930,000, mainly because of forestallments in anticipation of an increased duty; yet in spite of the duty of 4s. 2d. a hundredweight the additional price of 4d. a hundredweight would amount to the consumption of beer, which was counterbalanced by a large increase in the consumption of tea and cocoa. The sugar duty produced £2,300,000, exceeding the estimate by £1,930,000, mainly because of forestallments in anticipation of an increased duty; yet in spite of the duty of 4s. 2d. a hundredweight the additional price of 4d. a hundredweight would amount to a half as much. The coal duty produced £1,314,000 on a total export of 44,004,000 tons, compared with 46,135,000 tons in the previous year and 43,094,000 tons in 1900. The imports of British coal into Hamburg fell off no more than those from other countries and the competition of American coal in Mediterranean ports, which began with the high prices of 1900, declined with the fall in price. The duties fell off £380,000; the tobacco revenue, from £12,330,000 to £10,585,000; excise duties, from £23,400,000 to £21,300,000, being a decrease in two consecutive years being attributed to the dilution of beer by the brewers on account of the tax. The death duties amounted to £18,398,000, including £4,198,000 paid over to the local taxation fund. The excise receipts from this source were £1,220,000 more than in the previous year and £290,000 more than the estimate. Stamps produced £7,800,000, a falling off of £25,000. The yield of the income tax was £348,000,000, which was £1,000,000 more than the estimate. The excise receipts on March 31, 1902, amounted to £38,007,000, including surplus receipts from the consols loan of £600,000.

The national debt was increased by this loan to £706,408,000, including £20,532,000 expended on reproductive works and repaid by annual votes. Deducting this, the dead weight of the debt was £747,876,000, which was £59,844,000 more than in the previous year. Including the amounts paid into the local taxation account and expenditure for military and naval works, the Uganda Railroad, the Pacific cable, and other purposes, the total expenditure for 1902 was £215,783,000. The expenditure for the year ending March 31, 1903, was estimated at £29,450,000 for charges on the consolidated fund, £38,605,000 for army services, £31,253,000 for civil service, £5,000,000 for customs and inland revenue, £14,752,000 for the postal and telegraph services; total, £174,609,000. On the
exisitng basis of taxation customs duties were expected to yield £32,900,000, excise £32,700,000, death duties £2,500,000, land tax £740,000, the house duty £1,760,000, the income tax £36,000,000; total, £128,000,000, besides £21,755,000 of non-tax revenue, which raises the total income to £149,755,000. This left a deficiency of £26,824,000 to provide for, but if the South African War continued this might be swelled by over £16,000,000, and expenses of the South African constabulary and grants to the West Indian colonies pending the abolition of sugar bounties, with interest on new debts to be incurred, would add to the deficit, which was estimated at a total of £45,500,000 on the contingency of the continuance of hostilities, whereas if they ceased gratuities and bounties to soldiers, transportation of reservists home, the maintenance of a considerable force in Africa, and means to be provided for restocking and rebuilding the devastated farms and resettling the two colonies would require large sums, though the new colonies may later reap a great advantage. Of the estimated deficit £4,500,000 would be obtained by suspending the sinking-fund for another year. Another increase of 1d. in the income tax, making it 4½d. in the pound, was expected to yield £2,500,000. Doubling the stamp tax of 1d. on checks would produce £500,000. Besides these increased taxes a tax on imported grain, a registration duty such as was abolished in 1899, was introduced and fixed at 3d. a hundredweight on all kinds of cereals, dried peas and beans, uncleaned rice, etc., and 5d. on flour, meal, starch, cleaned rice, etc., and of this the yield was £2,650,000, making the total receipts from new taxation £15,100,000, reducing the estimated deficit to £35,500,000, of which £32,000,000 was to be borrowed and the remainder paid out of the unexpended exchequer balances. The total estimated expenditure is £18,469,000. The estimates of revenue, including the new taxes, were £35,450,000 from customs, £25,700,000 from excise, £13,200,000 from death duties, £27,000,000 from stamps, £2,500,000 from land tax and house duty, £35,900,000 from income tax, £21,750,000 of non-tax revenue, and £1,245,000 of old stock.

The Army.—The army estimates for the year ending March 31, 1902, fixed the strength of the regular army of the United Kingdom at 9,745 commissioned officers, 19,604 sergeants, 5,633 drummers and musicians, and 184,433 rank and file, making a total of 224,680 men of all ranks, an increase of 7,351 over the authorized strength for 1901. The general and departmental staff consisted of 307 officers, with 130 non-commissioned officers and 6 soldiers, on the general staff, 236 army accountants, 86 officers in the chaplains' department, 96 in the medical department, and 110, with 6 non-commissioned officers and 1 man, in the veterinary department; total, 805 officers, with 136 non-commissioned officers and 7 men. The regimental establishments comprised 555 officers, 1,330 non-commissioned officers, and 12,376 rank and file in the cavalry; 1,541 officers, 3,360 non-commissioned officers, and 34,735 rank and file in the royal artillery; 702 officers, 1,588 non-commissioned officers, and 7,843 rank and file in the royal engineers; 3,501 officers, 8,479 non-commissioned officers, and 91,963 rank and file in the infantry; 419 officers, 934 non-commissioned officers, and 13,982 rank and file in colonial and native Indian corps; 248 officers, 1,172 non-commissioned officers, and 21,742 rank and file in the light infantry; 309 officers, 2,252 non-commissioned officers, and 49,253 rank and file in the army service corps; and 551 officers, 485 non-commissioned officers, and 2,586 rank and file in the medical service corps; total, 8,727,200, 1,860 non-commissioned officers, and 184,244 rank and file, with 25,402 horses. The army voted further for 236,200 imperial, colonial, Indian, and irregular force during the war in South Africa and for the expeditionary force in China, increasing the total number to 450,000, exclusive of the army in India. The numbers of troops of all ranks maintained for service in the United Kingdom on Jan. 1, 1900, were: 11,676 cavalry, 17,572 artillery, 5,531 engineers and 72,097 infantry and special corps; total, 106,688, with 13,892 horses and mules. Of these, 79,057, with 10,649 horses, were stationed in England and Wales; 3,942, with 345 horses, in Scotland; and 23,687, with 2,905 horses, in Ireland. The numbers serving abroad at that date were 4,257, with 769 horses, in Egypt; 44,605, with 2,317 horses, in the colonies; 74,406, with 12,303 horses, in India; and 1,837 in Crete; total, 125,165, with 15,898 horses and mules. The total effective strength of the British regular Army on Jan. 1, 1899, was therefore 231,851 officers and men, with 29,281 horses. The reserves and auxiliary forces consist of the army reserve, the militia, the yeomanry, and the home volunteers. The authorized strength of the military forces of the empire, according to the estimates for the year ending March 31, 1902, was as follows: Regular forces, including native Indian regiments, 2,899; army reserve, first class, 90,000; militia, 131,593; new militia reserve, 50,000; militia of the Channel Islands, 3,271; militia of Malta and Bermuda, 2,098; yeomanry, 8,657; volunteers, 277,000; regular forces on the Indian establishment, 73,518; total, 717,670. The effective strength of the various classes of troops as reported on Jan. 1, 1901, was as follows: Regular forces, home and colonial, 335,937, including 9,354 yeomanry and 7,000 enlisted volunteers; native Indian regiments, 22,313, including 19,128 men serving in the China expedition; army reserve, first class, 5,251, including 2,163 enlisted volunteers; militia of the United Kingdom, 100,068; militia of the Channel Islands, 3,429; militia of Malta and Bermuda, 2,098; yeomanry, 8,657; volunteers, 277,000; regular forces on the Indian establishment, 63,023; total effective, 519,065. This includes the British, but not the colonial forces, serving in South Africa. The strength of the army in South Africa on Feb. 1, 1901, was 141,490 regulars; 28,330 colonial, not including the latest levies not yet reported; 7,995 imperial yeomanry; 7,700 volunteers; and 19,425 militia; total, 204,945. The regular forces consisted of 4,305 officers and 137,085 rank and file, the latter comprising 12,000 cavalry, 12,000 artillery, 29,700 infantry, and 12,885 other troops. Under the old system there were 12 militia districts in the United Kingdom, subdivided into 67 regimental districts, each of which was the recruiting ground for a regiment, with which were linked the district militia and according to the resolution of the House of Commons adopted on May 16, 1901, the army is to be organized in 6 army corps, with staff, buildings, and stores for each; a military reserve of 50,000 men will be formed, and the yeomanry will be increased from 12,000 to 35,000; and 8 regiments outside of the army corps are to be recruited for garrison service. The first of these army corps, quartered respectively at Aldershot, on Salisbury Plain, and in Ireland, will be available for either home defence or foreign service. The other three quartered at Colchester, at York, and in Scotland, will have distributed among
them 60 battalions of militia and volunteers. The force to be maintained when the new organization is perfected will comprise 155,000 regulars in the United Kingdom, an army reserve of 90,000 men, 150,000 militia, 35,000 yeomanry, and 250,000 volunteers. Under the short-service system men enlist in the regular army for twelve years, serving in the active army from three to seven years, and for the remainder of the term belonging to the reserve. The number of recruits enlisted in the army during the year ending Nov. 30, 1899, was 36,636, of whom 34.8 per cent. were below standard height; militia recruits, 37,370. The regular army on Jan. 1, 1899, was composed of 165,038 Englishmen, 17,256 Scotchmen, 2,938 Irishmen, 10,015 born in the colonies and India, 97 foreigners, and 1,580 not reported. The strength of the British army has been increased from 70,000 men in 1872 to 212,000 in 1897, 229,000 in 1899, and 238,000 in 1902, with a reserve of 90,000. The effective strength in 1902 was not over 210,000. The number of recruits in 1896 was 27,800; in 1897, 33,700; in 1898, when the standard was lowered, 33,400; in 1899, 40,200; and in 1900, when the standard was lowered a second time and the war stimulated enlistment, 46,700; in 1901, with the war still continuing, 45,100. The waste in desertions has been considerable. In 1901 was carried out, and to 1900 it rose to 5,484 and in 1901 to 8,822. The available reserves were decreased by the war from 81,000 at the beginning of the war to 20,000 or 30,000 men, and it was hoped to induce them to remain with the colors instead of going into the reserve. To fill the ranks, which at the existing rate of recruiting would be reduced to a fraction of the 50,000 to 100,000 Government in 1902 raised the pay, which was nominally 1s. a day, but actually from 3/- to 8d., to 10d., to a clear shilling. According to the plan adopted soldiers are enlisted for three years. At the end of two years a soldier, if efficient and of good character, is allowed to choose whether at the end of his term of three years he will pass into the reserve for nine years or whether he will serve with the colors for six years longer, making eight years in all, and then go into the reserve for four years. These reenlisted soldiers receive 1s. 6d. a day, except such as are not up to the standards in shooting, who when they are reengaged only get 4d. a day extra until they become efficient shots, and after that the full 6d. The extra pay is expected to cost $1,500,000 a year. The soldiers are to be reenlisted and furnish 50,000 recruits a year, which will keep the army full and give a reserve of 150,000 or 175,000 men. The additional cost is estimated at $1,048,000 to the British and $7,966,000 to the Indian Government per annum. When the South African War broke out the effective in the British army, exclusive of India, but including the reserve, were 240,000 men. The total troops in South Africa, exclusive of colonial troops, militia, volunteers, and yeomanry, have been about 150,000. The total number landed in thirty months was 220,000, of whom 220,000 came for the British. At the close of the war the number drawing rations in South Africa, including army attendants, was over 300,000 men, with 245,000 horses and mules. The estimates were made by the Board of War in 1903 amounting to $299,310,000, provided for 420,000 men all told. The program for 1903 included reforms in the volunteer corps in Great Britain, which would be in a good position in the first line of defense in case of invasion if the United Kingdom is to escape the necessity of conscription. Men who have been trained in the volunteers for four years will be allowed to go into a volunteer reserve for six years on the condition that they practise shooting at the range once in two years. A yeomanry reserve will be created, of the maximum strength of 5,000 men, who will receive £5 a year each and must be willing to serve abroad in case the whole army reserve is mobilized. Another yeomanry reserve, consisting of men able to ride 25 miles in three hours, will be formed so that they can not go into camp for two weeks every year, will be available, like the volunteer reserve, for home defense. The militia, artillery, and engineers will be improved and increased, and a militia reserve is to be created. Militia officers will be allowed to serve temporarily with line regiments, and the conditions of service in the regular army for officers will be changed by lightening the incidental expenses that keep out men of small means, improving their military education, and rewarding professional work and efficiency. Drill will be changed on the principle that the company, not the battalion, is the practical unit, and companies will be drilled in rifle exercises, bayonet fighting, skirmishing, and signal exercises for eight months of the year, while unnecessary parade drill and manual and bayonet exercises will be abolished. The plan of increasing the yeomanry by 21 regiments adopted in 1899 was a great success, and two thirds of them having been raised at the end of the fiscal year 1902, increasing the number of men from 10,000 to 17,500. Of 8 garrison regiments to be reenlisted in 1903, 5,000 served their time 5 were already formed. The army-corps scheme remained in abeyance while the war was still going on. Buildings and training grounds were being got ready, and a system of decentralization and delegation of powers was being introduced in the organization of the army, but even the first army corps at Aldershot still remained on paper only. The concentration of camps in South Africa, scandals in the purchase of horses and supplies, and other matters connected with the war gave occasion for investigations. In the concentration camps the military authorities had to provide food, shelter, and clothing for 150,000 persons outside of the army. Provision had to be made, moreover, for prisoners of war in five or six places, hundreds and thousands. The remounts and transport animals shipped to South Africa consisted of 290,000 horses and 120,000 mules, besides 120,000 horses purchased locally. The navy.—The British navy on Jan. 1, 1901, comprised 14 first-class, 12 second-class, and 11 third-class battle-ships, 6 armored cruisers, 125 protected cruisers, 33 torpedo-gunboats and others, 26 destroyers, 2 torpedo-ships, and 11 first-class and 71 second-class torpedo-boats. There were 13 obsolete battle-ships, 10 coast-defense vessels, and 95 third-class gunboats which were not counted in the effective navy, and also numerous river gunboats. Already launched, but not yet ready for sea, were 7 first-class battle-ships, 8 armored cruisers, and 1 destroyer. In process of building or authorized to be built there were 8 more first-class battle-ships, 6 armored cruisers, 2 protected cruisers, 12 destroyers, and 4 first-class torpedo-boats. The personnel of the navy, for which the estimates of the year ending March 31, 1902, provided, comprised 85,323 naval officers and seamen, including 3,700 boys serving on the ships, 2,800 on the gunboats and other auxiliaries, and 6,000 marines on sea service, 6,200 boys in training, 440 cadets and engineer students, 1,048 pensioners, and 1,824 others; total, 118,825, against 114,990 in 1901. The increase of 4,225 in the previous year included 287 officers, 1,150 seamen,
1,000 marines, 396 miscellaneous, 500 stokers, 100 electricians, 210 other artisans, and 100 apprenticed shipwrights and cooperers. The naval reserve numbered 25,000 seamen. Parliament authorized the gradual increase in five years of flag-officers from 88 to 80, of captains from 208 to 245, of commanders from 304 to 350, of lieutenants from 1,150 to 1,300, of engineers from the main to 1,050, of doctors from 450 to 490, of gunners and boatswains from 920 to 1,150, of chief carpenters from 18 to 20, of carpenters from 207 to 240. The canteen system is to be improved, the number of meals on boardhip increased from 3 to 5, and the standard of living for the sailors made to correspond in some degree with the higher standard on land. The system of subsidizing merchant steamers as auxiliary cruisers has been altered, so that 18 of the fastest liners will receive regular subsidies and be ready to be converted at any time into war-ships and 30 others will be held at the disposal of the Government.

The latest type of battle-ship, adopted for the King Edward, Dominion, and Commonwealth, of 16,500 tons, with armor of 12 inches thickness and engines of 18,000 horse-power, designed to give a speed of 19 knots, has an armament of 4 12-inch breech-loaders in turrets on the main deck, 4 9.2-inch quick-firers in smaller turrets above, and 10 6-inch and 28 3-inch quick-firers. The Queen and Prince of Wales, of 15,000 tons, with 12-inch armor at the water-line and engines of 18,000 horse-power, giving a speed of 19 knots, carry 4 12-inch guns in fore and aft turrets, 12 6-inch quick-firers in armored casemates, and 18 3-inch quick-firers. This arrangement was followed in all battle-ships from the Royal Sovereign, launched in 1801, and her predecessor, the Hood, and sisters, the Empress of India, Repulse, Royal Oak, Ramillies, Revolution, and Revenge, until it was changed in the King Edward class, which has a complete armored battery on the main deck. The Duncan, Cornwallis, Russell, Exmouth, Monmouth, and Albemarle, of 14,000 tons, have 11 inches of armor and, besides pairs of 12-inch guns, carry 12 6-inch and 12 3-inch quick-firers, their steam-power and nominal speed being the same as in the latest models. The London, Venerable, and Bulwark, of 14,700 tons, launched in 1899, having 12 12-inch guns and 12 6-inch and 18 3-inch quick-firers, and with engines of 15,000 horse-power can make 18 knots an hour. Of the same size and speed are the Formidable, Irresistible, and Implacable, launched in 1898 and 1899, which carry, besides pairs of 12-inch guns, 12 6-inch quick-firers, 16 3-inch quick-firers. These are of the same type as the Canopus, launched in 1897, of 12,950 tons, whose secondary armament consists of 12 6-inch and 10 3-inch quick-firers and whose speed, with engines of 13,500 horse-power, is 18 knots, with 12 inches of armor amidships and a 2-inch belt extending to the bow. Of the same class are the Ocean, Goliath, Albion, Glory, and Vengeance, the last of which was launched in 1896. This class was an improvement on the
of 21,000 horse-power, giving a speed of 21 knots. The Diadem, Andromeda, Niobe, Europa, Spartan, Argus, and Mercury, launched in 1896, 1897, and 1898, are the largest deck-protected cruisers, having a displacement of 11,000 tons, with a quick-firing armament of 16 6-inch, 14 3-inch, and 20 small guns well protected and disposed as in the Majestic, and capable of steaming 204 knots with engines of 16,500 horse-power. The new protected cruisers Encounter and Challenger, of 5,000 tons, the same size as the Hermes, Hyacinth, and Highflyer, launched in 1898, will carry 12 6-inch and 15 smaller quick-firers and with engines of 9,600 horse-power are designed to make 184 knots. The latest destroyers made 36 and 37 knots in their trials. In 1901 the Viper and Cobra went to pieces at sea and an official investigation was ordered for the purpose of determining what was the cause of their weakness. The British Government, while engaged in experiments on the best means of destroying submarine boats or warding off their attacks, began in 1900 to build minelayers of its own, adopting the Holland design, of which type 5 boats were ordered.

The navy estimates for 1903, amounting to £54,300,000, were £39,000,000 over 1902, while for new construction £9,000,000 were voted, compared with £9,000,000. The program of new construction includes 2 battle-ships, 3 armored cruisers; 269 class cruisers, 4 scouts, 9 destroyers, 4 torpedo-boats, and 4 submarines. The battle-ships of the Powerful and Terrible class will receive additional guns, and the Barfleur and Barfleur-class will have 4.7-inch replaced by 6-inch guns. The naval scouts or fleet messengers are a new type and class of vessels. The increase in the personnel for 1903 is 5,375, making a total of 125,550 officers and men. During the fiscal year ending March 31, 1902, the battleships Formidable, Implacable, Irresistible, Bulwark, and Vengeance and the armored cruisers Aboukir, Cressy, Hogue, and Sutlej were completed, together with the protected cruisers Spartan and Pandora, 2 royal yachts, 4 sloops, 2 river steamers, 22 destroyers, 44 auxiliary vessels, and 5 submarines.

There were under construction on April 1, 1902, 13 battle-ships, 22 armored cruisers, 4 protected cruisers, 4 sloops, 2 auxiliary vessels, 10 destroyers, and 3 submarines. The vessels to be completed during the year ending March 31, 1903, are 5 battle-ships, 7 armored cruisers, 2 sloops, 2 auxiliary vessels, and 2 destroyers. The future destroyers are to be stronger and to have sea-keeping power to enable them to accompany fleets. The scouts will be still stronger. The existing destroyers, the type of which has proved unsatisfactory, will be reconstructed. The Viper and the Cobra, the first destroyers that foundered, were driven by steam-turbines. Vessels of the ordinary type with ordinary engines afterward proved too weak, and the prejudice against turbines therefore passed away. This kind of propeller, however, operates most economically at high speed and can not be as easily regulated as the steam-engine. Hence a type of destroyer has been tried, the Velox, in which auxiliary triple-expansion steam-engines are used for moderate, the turbines alone for the maximum speed. The triple-expansion engines are now ordered also with thuribines coupled in the same way with steam-engines, driven at ordinary speed by their exhaust steam.

The Area: Great Britain and Ireland. The inhabited area of Great Britain and Ireland, without the fishing boats and islands claimed by Ireland, is 157,270 square miles. Thus the inhabited area of Ireland is 32,280 square miles. The fishing boats and islands claimed by Ireland are contained in the territory of 51,300 square miles. The areas of the separate countries are Great Britain, 115,000 square miles; Ireland, 22,000 square miles; the United Kingdom, 137,200 square miles; and the United Kingdom without Ireland, 115,000 square miles.

The Population: The population of the United Kingdom is estimated at 34,000,000, of which 29,000,000 are in Great Britain, 5,000,000 in Ireland, and 500,000 in the Channel Islands and dependencies.

The Agriculture: The area of the United Kingdom is 37,156,000 acres, of which 17,770,000 acres are in Great Britain, 14,000,000 acres in Ireland, and 5,386,000 acres in the Channel Islands and dependencies.

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604, containing 4,288 tons of metal, valued at £587,869; copper ore, 9,108 tons, valued at £342,503; copper-coal from mines of valuable metal, valued at £55,905; copper, 730,304 tons, valued at £4,450; zinc ore, 24,675 tons, valued at £297,606, containing 9,006 tons of metal, valued at £218,873; bog-iron ore, 153,153 tons, valued at £1,038, containing 650 tons of metal, valued at £27,800; gold ore, 20,802 tons, valued at £42,929, containing 14,004 ounces of metal, valued at £222,485; total value of minerals, £5,282,922; total value of metals extracted from British ores, £21,030,719. The quantity of coal produced in 1900 was 225,181,300 tons, value £1,215,622; 963; clays, 14,040,694 tons, value £571,043; sandstone, 5,019,874 tons, value £1,680,580; slate, 585,859 tons, value £1,029,330; limestone, 11,905,477 tons, value £1,300,314; salt, 1,661,347 tons, value £611,920; oil shale, 2,282,221 tons, value £287,944; granite, 4,934,301 tons, value £1,236,747; chalk, 4,473,531 tons, value £129,092; gravel and sand, 1,387,205 tons, value £183,163; gypsum, 228,038 tons, value £360,542; arsenic and pyrites, 13,654 tons, value £75,736; barite, 29,456 tons, value £506,844; other ores of metallic value, £13,392; other value of other minerals £23,092; total non-metallic minerals, 130,674,754 tons, value £155,967.6. Of the total mineral produce the value of £337,192,160 was mined in England, £210,738,719 in Wales, £20,198,569 in Scotland, and £298,840 in Ireland. The total number of persons employed in mining was 914,517, of whom 780,932 worked in 3,884 mines and 78,596 in 784 metaliferous mines. In quarries 93,995 persons were employed. The export of coal in 1900 was 46,068,228 tons, value £36,819,856. The exports of coal and coke, 8,855,030 tons went to France, 5,336,157 tons to Italy, 5,965,161 tons to Germany, 3,229,294 tons to Russia, 3,048,458 tons to Sweden, 2,619,681 tons to Spain, 2,125,493 tons to Denmark, 1,971,121 tons to Egypt, 1,901,530 tons to the Netherlands, and 1,438,058 tons to Norway, 1,191,649 tons to Belgium, and smaller quantities to Brazil, the Argentine Republic, Portugal, the Spanish Possessions, and the Union of South Africa. The iron ore produced in 1900 was 6,997,983 tons, valued at £539,003; exportation, 3,414 tons, valued at £7,461. Of the iron ore imported, 5,551,599 tons came from Sweden, priced at £4,914,078. The total net supply available for smelting in 1900 was 20,873,670 tons. The quantity smelted in 403 furnaces was 22,100-774 tons. The quantity of pig iron made was 8,859,091 tons. Imports of pig and puddled iron were 181,151 tons, and exports 1,427,525 tons, exports of bar and angle iron, 157,164 tons; of railroad iron, 463,731 tons, of wire, 38,441 tons; for plates of tin, 66,278 tons, tin plates, 272,877 tons, of cast and wrought iron, 338,637 tons; of hoops and plates, 331,957 tons; of wrought iron, 93,937 tons; of unwrought steel, 308,448 tons; of steel and iron, 41,094 tons; total, 3,540,689 tons. The importation of copper ore and regulus was 188,492 tons; of unmanufactured copper, 78,693 tons; of lead, 195,380 tons; of tin, 31,115 tons; of zinc, 60,536 tons. The quantity of raw cotton imported into the United Kingdom in 1901 was 1,390,305,904 pounds; exports, 206,566,767 pounds; retained for consumption, 1,625,738,929 pounds. The wool trade in 1901 was 558,950,328 pounds; exports, 196,307,281 pounds; retained for consumption, 362,743,207 pounds. Of the wool imports 396,367,117 pounds came from Austria-Hungary. The wool imports in 1901 were 600,000 pounds, in addition to which 30,000 pounds were clipped from imported sheepskins, 20,000 pounds.
The value of merchandise transhipped in transit in 1900 was £11,016,516. The value of gold coin and bullion in 1901 were £2,075,715,628, and exports £13,905,265; imports of silver coin and bullion were £11,301,578 in value, and exports £12,040,837.

Navigation.—The total number of vessels entered at the ports of the United Kingdom during 1900 was 353,402, of 103,031,375 tons; the total number cleared was 348,179, of 103,720,553 tons. These numbers include 284,908, of 55,828,569 tons, entered and 280,037, of 54,429,606 tons, cleared coastwise. The tonnage of vessels engaged in foreign trade entered at British and Irish ports in 1900 was 49,223,000 tons, of which 31,445,000 tons were British and 17,777,000 tons were foreign; cleared in the foreign trade, 40,301,000 tons, of which 31,266,000 tons were British and 9,035,000 tons foreign. The tonnage of vessels entered at British foreign ports was 36,180,000 tons, of which 24,420,000 tons were British and 11,760,000 tons were foreign; cleared with cargoes, 43,672,000 tons, of which 2,006,000 tons were British and 15,760,000 tons foreign; total tonnage entered and cleared with cargoes, 70,358,000 tons, of which 53,322,000 tons were British and 27,626,000 tons foreign. With cargoes and in ballast the total tonnage entered was 35,812,887 tons, of which 7,881,571 tons were Norwegian, 6,927,219 tons German, 3,819,073 tons Russian, 3,494,797 tons Danish, 3,213,767 tons Dutch, 2,822,375 tons French, 2,709,247 tons Spanish, 1,691,800 tons Belgian, 1,410,078 tons Italian, 1,179,407 tons Russian, and 535,532 tons Swedish.

The imports of merchandise from various foreign countries in 1900 and the exports to them of British and Irish produce were valued as follows:

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Total | £413,544,858 | £195,819,400 |

The value of exports of
American, and 491,222 tons Austrian. The tonnage of the British and principal ports of the United Kingdom was as follows: London, 16,700,527; Cardiff, 12,760,240; Liverpool, 11,677,708; Tyne ports, 8,791,239; Hull, 4,940,735; Glasgow, 3,981,587; Southampton, 3,099,389; New-
port, 2,603,451; Blyth, 2,487,217; Swansea, 2,446,051; Kirkcaldy, 2,039,433; Leith, 2,037,000; Mid-
dlesbrough, 1,075,266; Sunderland, 1,059,922; Dover, 1,037,659; Grimsby, 1,891,474; Grangemouth, 1,729,641; Manchester, 1,383,254; Harwich, 1,306,021; Goole, 1,170,604; Bristol, 1,121,245; Hartle-
pool, 999,036; Folkestone, 777,813; Belfast, 685,750.

The British registered shipping at the beginning of 1901 comprised 10,773 sailing vessels, of 2,096,498 tons, and 9,209 steamers, of 7,207,610 tons. There were engaged in the home and foreign trade, 7,480 sailing vessels, of 1,986,731 tons, and 7,455 steamers, of 7,405,476 tons; total tonnage, 9,385-
207. The total number of men employed in the commercial navy was 247,445, including 39,893 foreign sailors and 36,023 lascaros. Of the total number of vessels engaged in trade, 6,203 sailing, of 378,957 tons, employing 22,734 men, were in the British and Irish re-
ed steamers of 1,153,595 tons, employing 719 men, were engaged both in the home trade, including ports between Brest and the Elbe, and in the foreign trade; and 1,143 sailing vessels, of 1,504,838 tons, employing 25,856 men, were engaged exclusively in the for-
eign trade; 3,545 steam vessels, of 506,359 tons, employing 40,288 men, were engaged in the home trade, including ports between Brest and the Elbe; and 20,012 vessels, employing 4,930 men, were engaged both in the home and foreign trade; and 3,848 steam vessels, of 6,065,575 tons, were engaged exclusively in the foreign trade. The numbers of vessels built and first registered during 1900 were 504 sailing ves-
sels, of 35,576 tons, and 667 steamers, of 698,330 tons. Besides these, 66 sailing vessels, of 7,546 tons, and 196 steam vessels, of 199,315 tons, were built for foreigners, including 20 war-vessels, of which 2, of 112 tons, were sailing vessels and 18, of 11,530 tons, were steamers. The total number of vessels registered in the United Kingdom was 19,982, of 9,304,108 tons. The total number be-
longing to the British Empire in 1900 was 34,875, of 10,751,302 tons, the sailing tonnage being 3,059,492 and steam tonnage, 7,791,810.

Shipping Trust.—In the spring of 1902 a trust of British and American lines of steam-
ships engaged in the north Atlantic shipping trade was organized in the United States, the capital amounting to $170,000,000. The com-
pany, which acquired a majority of the stock of the British lines and entered into an agree-
ment for the division of traffic and establishment of equal rates with the two great German lines, was domiciled in New York, but the British ships retained their nationality, and the obligation to serve England as auxiliary naval vessels in case of war that had been assumed for some of them was not canceled. For some years previous to the combination the steamships engaged in pas-
senger transportation between American and Eu-
ropean ports had in competition provided more and more luxurious accommodation, and freight rates had declined, owing to the extraordinary activity in ship-building which began in 1888 after a period of quiescence and continued till the close of 1901. Dividends and profits shrank or ceased in consequence of the competition, so that English lines already invested in shipping were willing to enter or sell out to the trust formed to keep up rates and reduce expenses by J. P. Morgan. British lines which did not enter the American combination formed an alliance among themselves and principal ports of the British Empire and several of the Canadian government to enable them to compete with the other syndicate and develop trade with Canada and with the East through the United States. The Australian government was asked also to assist an all-British combination that would promote commerce between the different parts of the British Empire. In the United States the American syndicate controlled rail-
roads and various facilities that gave it an advan-
tage over the rival combination.

Railroads, Posts, and Telegraphs.—The total length of railroads open to traffic in the United Kingdom on Jan. 1, 1901, was 21,885 miles, of which 15,187 miles were in England and Wales, 3,485 miles in Scotland, and 3,163 miles in Ireland. The total share and loan capital was £1,176,001,800. The number of passengers con-
veyed in 1900 was 1,142,276,086, paying £45,383-
985; freight receipts, £35,470,504; total gross earnings, £104,801,585. The earnings of English railroads were £97,034,581, and receipts were £89,392,501; the capital of Scottish railroads was £165,086,736, and receipts were £121,005,010; the capital of Irish railroads was £23,000,000, and receipts were £3,200,347. The total operating expenses were £64,743,520, being 62 per cent of the gross earnings. The length of street-railroads in the United Kingdom on July 1, 1900, was 1,777 miles; the capital expenditure was £20,282,692; receipts for the previous year, £25,445,620; expenses, £24,075,382; net earnings, £1,370,377; number of passengers, 37,242,000.
The post-office in 1901 delivered 1,070,000,000 letters in England and Wales, 202,400,000 in Scotland, and 144,200,000 in Ireland; total, 2,325-
600,000. The number of postal cards was 350-
400,000 in England and Wales, 41,600,000 in Scot-
land, and 18,000,000 in Ireland; total, 419,000,000. The number of book packets was 619,300,000 in England and Wales, 17,800,000 in Scotland, and 35,300,000 in Ireland; total, 732,400,000. The number of newspapers was 127,800,000 in Eng-
land and Wales, 19,300,000 in Scotland, and 5,000,000 in Ireland; total, 141,000,000. The number of parcels was 67,200,000 in England and Wales, 8,600,000 in Scotland, and 5,200,000 in Ireland; total, 81,000,000. The total number of inland delivery orders was 85,300,029; total amount £29,981,726. The British postal authorities, having in vain endeavored to establish a parcel post with the United States by agreement with the Post-
Office Department at Washington, although such a service has been in operation between Great Britain and British colonies since 1885, arranged with a private corporation, the American Express Company, to deliver anywhere in the United States and receive for delivery by the British post-
office in the United Kingdom parcels under 3 pounds for 2s. or 50 cents, from that to 7 pounds for 3s. or 75 cents, from 7 to 11 pounds for 4s. or $1. For New York and adjoining cities the rates are 1s. or 25 cents, 2s. or 50 cents, and 3s. or 75 cents, but for all parcels entering the United States an additional charge of 5 cents goes to the Government for clearance at the custom-
house besides import duties at regular rates, and an additional fee of 25 cents to the custom-house broker.

The British postal telegraphs on March 31, 1901, had a total length of 46,265 miles, with
Great Britain and Ireland.

347,680 miles of wire. The number of messages sent in the year ending March 31, 1901, was 89,422,961, of which 75,342,967 were despatched in England and Wales, 9,289,019 in Scotland, and 4,903,076 in Ireland.

There were 76,831 miles of telephone-lines belonging to the Government on March 31, 1901, and 7,700 miles were under construction. The number of conversations during the previous year was 17,950,296. The post-office had contracted for the construction of 34,346 miles more. The National Telephone Company had 1,019 exchanges, and the number of conversations over its wires was 723,246,365. The net receipts of the telegraph office a year ago in 1901 were £13,965,470, and expenses £10,064,903; telegraph receipts were £23,459,353, and expenses £3,812,569; net deficit, £5,552,116, not counting £296,868 of interest on the purchase price, net postal and telegraph revenue, £2,557,351.

The demand for all-British cable communications with colonies and naval stations in all parts of the world, which was based on strategic considerations, led to the Pacific cable which was laid between Canada and Australia in 1902. British lines connect Australia, Cape Colony, and Canada, and as the line passed through the South African con- table, £275,000 for interest on new debt, and £250,000 for a general Consolidated Fund loan, the total expenditure £175,250. The deficit of £19,600 would be paid out of the loan, and at the end of the year the remainder of the loan could be returned to pay off debt and the sinking-fund, suspended during the war, be re- stored.

New rules of procedure were introduced early in the session. The whole Liberal party opposed any delay. The motion for adjournment, the favorite weapon of a minority, if it is believed to hinder the advancement of a Government measure, can be debated until the hours reserved for the Government have been used; and the time reserved for the Government is limited to the first hour on Friday and the last half-hour of each other sitting, unless the midnight rule has been suspended, when printed answers must suffice, but no question need the notice begins; and if the notice is not alone entitled to ask the representation of the Government to explain its answer and must be satisfied with one explanation; the Government can continue debate after the appointed hour for the close of each afternoon and evening sitting by moving closure, but private members can not make diatribe motions to adjourn or report progress or that the chairman leave the chair; a minister may move to have any debate resumed after midnight, otherwise the evening sitting terminates one hour past midnight, on Fridays at six o’clock in the afternoon, but discussions of supply can be continued into the night by the Government without the concurrence of the House of Commons. In case of gross disorder to suspend any sitting for a time to be named by him; the first twenty-five minutes of Government days and the sitting of Friday, from two till six o’clock, are the only times allowed for private bills, petitions, and motions, except two evening sittings before and one only after the Easter recess, when motions of motion take precedence, but after Whitsuntide all the evenings and all the Fridays save two belong.
also to the Government; the estimates must be voted before Aug. 5, and their discussion must not extend more than two days. Another day, the closure of the debate being applied to in a lump without discussion all items not yet voted, unless a minister asks the house allows three days more, and any vote is proposed of in one day; when a member is named by the speaker or the chairman of committees for disregarding his authority or for abusing the rules for purposes of obstruction or for other reasons he can, on a simple motion put without debate, be suspended for twenty sitting days for the first, forty days for the second, and eighty days for the third or any subsequent offense, and the suspended member can not resume his seat for forty days more unless he apologizes in writing, but if a member or members acting jointly refuse to obey the speaker so that force must be used to compel obedience he or they are suspended for the remainder of the session or for eighty days on which the house sitters, whichever is the longer period, the house can not be adjourned for before ten o'clock in the evening, though a division when fewer than 40 members are present is not valid.

The licensing bill dealing with some of the evils arising from intemperance provides for the arrest of any person found helplessly intoxicated in a public place; makes it a punishable offense to be found drunk while in charge of a child; revokes the license of a man who has been repeatedly convicted of drunkenness to give security for his future behavior, otherwise he is confined in jail; makes it a punishable offense of a public house keeper to sell knowingly to a habitual drunkard or an intoxicated person, and when charged with permitting drunkenness on his premises it lies with him to prove that he or persons employed by him took reasonable precautions to prevent drunkenness; provides that convictions against a licensed place be recorded for the information of the magistrates when considering the renewal of the license, and if the justices do renew a license after 5 convictions within five years they must report their reasons; places grocers' licenses, which have been £10, under the control of the licensing justices; compels all clubs in which liquor is sold to register under stringent penalties and provides for the suppression of specified clubs and places with a sale of alcoholic beverage for other immoral purposes; enables the husband of a woman who is a habitual inebriate to apply to a court of summary jurisdiction for a judicial separation with an order for maintenance; a woman whose husband is a habitual drunkard is entitled to a protection order against him; any habitual drunkard who is convicted of a crime in which drunkenness is an element can not purchase liquor without being liable to arrest and punishment, and if a publican who has been notified of the facts sells it to him he also incurs a penalty. The most important clause was that for the supervision of clubs, which must furnish particulars every year of the objects, rules, and number of members. When the membership falls below 25, when the objects and rules are not carried out in good faith, when there is much drunkenness on the premises, when persons are admitted as members without any delay, when the supply of liquor is not under the control of an officer or committee of the club, and in other suspicious circumstances, the club can be struck from the register. If the Director is given to the courts to declare a club a sham, the penalty on the annual population of school age is £9,608,757, whereas in 1870 the school accommodation was sufficient.

The Board of Education, instituted on April 1, 1900, has control over elementary education in England and Wales, and authority to inspect secondary schools. The elementary education act of 1870 school accommodation must be provided in every district for all children between the ages of five and fourteen. In 1900 the local authorities were empowered to admit over twelve to leave school for a part of the whole of the year for industrial employment; in agricultural districts children over eleven were exempted during the busy season. Groups of boroughs and parishes form school districts to elect school boards, of which there are 2,545 in England and Wales, besides 788 school-attendance committees in places where there are no school boards. Parents are compelled to send their children to school by these local educational authorities. In the board schools unsectarian religious instruction is given. In the voluntary schools sectarian teaching is allowed. Voluntary schools were supported in the beginning by voluntary subscriptions. Fees were charged in the public schools until 1891, when Parliament made elementary schools free and voted an annual grant of 10s. for every child in average. In 1897 an annual grant of 5s. for each pupil was extended to voluntary schools under the standards set in the annual code of the Education Department, the central body which preceded the Board of Education. Of the associations which received this grant, 26 are Church of England, 11 Roman Catholic, 11 undenominational, 8 Wesleyan, and 1 Jewish. The cost of maintaining the board schools is raised by the school rates levied on all householders, while voluntary schools have to depend partly on subscriptions belonging to the religious denominations which support these schools in order to give their particular doctrinal cast to the education of their children and inculcate the children of others with their religion. There were 5,598 board schools with 2,991,049 pupils, 11,777 schools of the national society of the Church of England with 1,885,802 pupils, 458 Wesleyan with 125,727 pupils, 1,945 Roman Catholic with 255,036 pupils, and 1,079 British, undenominational, etc., with 220,032 pupils. In 1901 only 91 of the schools belonging to the denominational associations declined the parliamentary fee grant which was ostensibly voted for necessitous voluntary schools.

The elementary schools of England and Wales in 1901 had accommodation for 5,910,416 pupils, 29.27 per cent, of the school population. The rural population of school age being 9,608,757, whereas in 1870 the school accommodation was sufficient.
only for 8.75 per cent of the population. There were 5,787 board schools, with accommodation for 2,881,155, having 2,703,434 scholars on the rolls and 2,230,375 in average attendance. The number of voluntary schools was 14,319, with accommodation for 5,739,361, having 6,064,706 scholars registered and 2,230,375 in actual average attendance. The number in average attendance in all the schools was 70,574 more than in 1900 and reached 82.17 per cent. of the total number on the registers. Of the total number of scholars, 5,116,384 were free and 644,275 paid fees. The schools were taught by 60,149 certificated or provisionally certificated teachers, 28,600 pupil teachers, 34,716 assistant or provisional assistant, and 17,956 additional women teachers. The number of women teachers doubled in seven years. The cost of the schools in 1901 was £3 5s. 2d. per child in average attendance in the board schools and £2 6s. 84d. in the voluntary schools. The elementary schools have made progress under the dual system by which church schools, first independent rivals of the unsectarian public schools, have latterly been partly supported by the state and subject to inspection and examination. To this list of interests, the other hand, has remained unorganized and has made no progress. The defects in secondary education have engaged the attention of the public and of legislators because the greater industrial and commercial progress of the United States and Germany has been ascribed in a great measure to the scientific and practical character of their systems of free, popular education. An educational commission in 1897 ascertained that there were in England 6,200 secondary schools in which 68,785 boarders and 207,759 day pupils were taught, a total of 276,544, of whom 129,315 were in boys' 114,239 in girls', and 21,255 boys and 18,740 girls in mixed schools. Of the total number, 8,167 were proprietary or private schools, with 183,930 pupils; 197 were schools maintained by religious and other communities and city companies, with 18,666 pupils; 308 belonged to limited liability companies, with 16,734 pupils; 60 were board schools, with 10,429 pupils, and 76 were established by local authorities, with 9,543 pupils.

Wales and Monmouth have had since 1889 a public board to examine intermediate schools, of which 94, with 7,445 pupils, were inspected in 1900. The English Board of Education when exercising its friendly supervision over secondary schools desiring inspection, of which there were only 27 in 1901. The education act introduced in the House of Commons by Mr. Balfour was intended to coordinate the board and voluntary schools and elementary and secondary schools and lead up to a system of national education, which is universally desired, which the Liberal party in power sought to develop out of the board schools, and which has made no advance on secular lines on account of the religious temper prevailing in the Church of England and dominating Tory politics. The Protestants dissenters upheld the board schools as earnestly as the Anglicans opposed them. The education act of 1897 was the first step of the English clergy toward regaining control of popular education. By their efforts and the sacrifices of their lay supporters they had built up a rival system of schools as extensive if not as efficient as the public schools. The Anglicans are demanding an equal status and an equal share of the school rates, relieving them entirely of paying voluntary subscriptions to keep up their own schools while bearing their full share of the cost of the board schools. The non-conformists, having witnessed what the church schools had done as private institutions supported by charitable contributions, not only in competing with the board schools in education and arresting their growth as a national system of public schools, but in proselyting the people, in building up the state church while their own bodies were not increasing, regarded this proposal as a blow aimed at their religious doctrines and communities as well as at the principle of unsectarian national education. The voluntary schools were inferior in teaching staff, equipment, and buildings to the board schools, and the subscriptions that supported them were falling off, so that the task of teaching a larger number of people than in religious conflicts viewed with regret the inferior education that half the children received and with foreboding the prospect that this would detrientially.

Mr. Balfour's education bill places board and voluntary schools on an equal footing, to be maintained by rates assessed by the county and borough councils. The majority in England of the independent minority in the House of Commons is determined to make the board schools as efficient as the voluntary schools and to furnish an equal number of places. The education department is an integral part of the government and is to be responsible for education. Mr. Harmsworth, the present minister of education, has the power and the duty to see that education is free, that it is not directed by any religious body, and that it is not under the control of any religious body. The execution of the educational policy has been committed to him. An educational commission is to be appointed to inquire into the state of education in England, and to report whether it is sufficient or not. The proposals of the bill are to be carried into effect by the minister of education, and are to be submitted to the House of Commons for its vote. The bill is to be passed into law by the king and to be put into operation within three years. The bill is to be carried into effect by the government and is to be submitted to the House of Commons for its vote.

In most country districts there are no schools except the church schools, and people of other denominations besides the Church of England have been able to support their own schools. The education act of 1870 made it compulsory for all voluntary schools to receive a certain amount of public money, and this has been sufficient to keep up the schools at a fair level. The bill proposed that country schools, where in most cases the parish clergyman has been the only manager, should be managed by a committee composed of the clergyman, three laymen of his parish, and two representatives of the public authority. The question of the management and control of the voluntary schools is bitterly contested in the House of Commons. The clergy retained the direction of their schools in the towns, and, as it seemed to non-conformists, of the country schools as well, and this was regarded as boding a return to the age when all education was prescribed and supervised by the clergy. Non-conformist assemblies formed a solemn league and covenant to refuse to pay school rates or that part of them falling to the share of church schools, and labor organizations resolved to elect members of the school board, and the bill is to be carried into effect by the government and is to be submitted to the House of Commons for its vote.
other two-thirds are likely to accept the control of the clergyman, and thus the one-man clerical management will be preserved. The buildings of the voluntary schools must be vested in the managers, and the managers, to be handed over to the education authorities, which have power to direct what repairs or improvements shall be made by the managers and to veto all acts of the board of managers. The rate for elementary education is 2d. in the pound, and this can be increased wherever it is found necessary.

Not the non-conformists alone, but a considerable section of the laity of the Church of England objected to the religious instruction which the clergy who were most zealous in education insisted on giving in the parish schools, in which ecclesiastical and ritualistic ideas pervade the secular studies and the children are weaned away from Protestant views of religion. The proposal to give the clergy four votes to two in the management was regarded as unfair because under the provisions of the bill not more than one-twelfth of the expenses of the schools would fall upon the owners and subscribers.

The education bill was read the second time on May 8 by the great majority of 237. As Roman Catholics are even more devoted than Anglicans to the compulsory education of their children, the Irish Nationalist party voted with the Government. In committee the discussion was endless. The abolition of the school boards that had developed under the compulsory education legislation in England was a matter for grave consideration. The uncertainty of how the county and borough councils would act and how the people would receive the demand for increased school rates was discussed as were rates where none were collected before caused misgivings even among the supporters of the Government, and the undefined character, composition, powers, and functions of the educational committees made the prospect still more obscure. Under the previous education laws no board schools could be erected in districts sufficiently provided with voluntary schools, but where there was insufficient accommodation for all the children in a district the board of education was enjoined to call upon the district to supply such deficiency, had it, however, not enforced its demand. Board schools have been erected wherever denominational schools did not exist and children of Church of England parents attended Church schools where this held the field. Under the new bill the local educational authorities will not be permitted to erect new schools if persons are willing to build voluntary schools. There were optional clauses in Mr. Balfour's bill that were generally condemned. The town councils were not compelled to assume authority over education, and if they did not the elective school boards retained their functions. It was optional also for the local education authority to appoint 2 additional managers to the voluntary school committees or to leave the 4 private managers in unrestricted control. The secular education in these schools is under the control of the local educational authority, which can veto the appointment or dismissal of any teacher. The guiding principle of the bill was that there shall be one local authority for elementary, secondary, and technical education with power to make and enforce any regulations that shall be the rating authority, which shall have at its disposal the best local expert assistance. The bill provides that the local education authority shall retain not only the control of elementary education, but shall take such steps as seem desirable, after consultation with the board of education, to supply or aid in the supply of education other than elementary, including the training of teachers and the oversight of the acts of the board of managers. The rate for secondary and technical education is 2d. in the pound, and this can be increased wherever it is found necessary.

London was excluded from the operation of the bill.

On July 11 the Marquis of Salisbury tendered his resignation as Prime Minister. The King on the following day offered the post to Mr. Balfour. Sir Michael Hicks-Beach, Lord Cadogan, and Lord James also retired. The Cabinet was reconstituted on Aug. 8 as follows: Prime Minister, First Lord of the Treasury, and Lord Privy Seal, Arthur Balfour; Lord High Chancellor, Lord Halsbury; Lord President of the Council, the Duke of Devonshire; Secretary of State for Foreign Affairs, the Marquis of Lansdowne; Hume Secretary, A. Akers-Douglas; Colonial Secretary, Joseph Chamberlain; Secretary of State for India, W. St. John F. Brodrick; Secretary of State for India, Lord George Hamilton; First Lord of the Admiralty, the Earl of Selborne; Chancellor of the Exchequer, C. T. Ritchie; Lord Chancellor of Ireland, Lord Ashbourne; Chief Secretary for Ireland, George Wyndham; Secretary for Scotland, Lord Balfour of Burleigh; President of the Board of Trade, Gerald Balfour; President of the Local Government Board, Walter H. Long; President of the Board of Agriculture, R. W. Hanbury; President of the Board of Education, the Marquis of Londonderry; Postmaster-General, J. Austen Chamberlain. The Secretary for Ireland went into the Cabinet instead of the new Lord Lieutenant, the Earl of Dudley. Sir William H. Wauclrod, who was appointed Chancellor of the Duchy of Lancaster, did not receive a seat in the Cabinet, nor Lord Windsor, the First Commissioner of Works, but the new Postmaster-General did and the President of the Local Government Board. Serious trouble in Ireland was the reason for making the Chief Secretary a Cabinet minister once more.

An intended visit of the King to Dublin was given up in view of the need for non-conformists just as the Protestants had attended Church schools whenever the field. Under the new bill the local educational authorities will not be permitted to erect new schools if persons are willing to build voluntary schools. There were optional clauses in Mr. Balfour's bill that were generally condemned. The town councils were not compelled to assume authority over education, and if they did not the elective school boards retained their functions. It was optional also for the local education authority to appoint 2 additional managers to the voluntary school committees or to leave the 4 private managers in unrestricted control. The secular education in these schools is under the control of the local educational authority, which can veto the appointment or dismissal of any teacher. The guiding principle of the bill was that there shall be one local authority for elementary, secondary, and technical education with power to make and enforce any regulations that shall be the rating authority, which shall have at its disposal the best local expert assistance. The bill provides that the local education authority shall retain not only the control of elementary education, but shall take such steps as seem desirable, after consultation with the board of education, to supply or aid in the supply of education other than elementary, including the training of teachers and the oversight of the acts of the board of managers. The rate for elementary education is 2d. in the pound, and this can be increased wherever it is found necessary.

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Ireland or to England to work as laborers in the summer time. The United Irish League, which succeeded the Land League, became active and the Home Rulers in Parliament aggressive. Lord Cadogan in April, under the crimes of 1887, revived in 9 counties the summary jurisdiction of stipendiary magistrates, special juries, and change of venue. Convictions under the coercion laws were so unjust that the Irish members went home in the parliamentary recess they took the lead in the attack on the Government, and were brought one after another before the resident magistrates for conspiracy until ten were convicted without juries and sentenced to various terms of imprisonment. For the first time hard labor was added to the punishment and they were treated as common criminals. Mr. Wyndham's land bill was intended for the mutual benefit of landlords and tenants. Its aim was to accelerate the transfer of the land to the latter, and hence contained a clause providing that in future the land courts would not reduce rents unless the tenant agrees to a purchase option. The Irish members considered it a landlord bill, and, on the extension, the clause which gave the land commissioners power to fix prices as well as rents. Sales under the previous land bill decreased rapidly after 2 years, and rents have become more involved and expensive. Litigation flourishes while the law is going to decay and the landlords can not sell for enough to clear off present bills, while the former renting value and place the peasants on a safe financial footing by reselling the land to them at its actual productive value. On such a basis most of the landlords would agree to compulsory sale, but not the great proprietors like the Duke of Abercorn and the Marquis of Londonderry. The Irish Nationalist party was unanimous in demanding the compulsory expropriation of the landlords in whatever way and the creation of a proprietary tenant on terms fair to the peasants. The evictions on the De Freyne estate were carried out. The Land Leaguers prevented the vacant farms from being taken for grazing purposes and broke up the practice of shopkeepers in many Irish towns who made speculation in rent in grass lands each year to fatten stock for market. Some of the landlords met in a convention and raised a fund to assist and protect persons attacked or boycotting, blackmailing, or intimidation. The law of conspiracy under a new interpretation brought to prison many speakers who threatened to make those who opposed them uncomfortable and miserable even by means which they themselves considered moral and lawful. Col. Arthur Lynch, who commanded an Irish legion that fought on the side of the Boers in South Africa, was elected to Parliament in Galway when the war ended. As soon as he landed on British soil he was arrested on the charge of high treason. Boycotting in the form of exclusive dealing by shopkeepers in towns and with others who did not join the United Irish League was the principal ground on which members of Parliament and of the county and borough councils were sentenced for criminal conspiracy to imprisonment with hard labor, which deprives them of civil rights for five years. Most of the newspapers of the country were suppressed for printing lists of those who had joined the league and those who had not. The civil court in Dublin gave damages, which a special jury fixed at a high figure, to a small trader who sued several members of the United Irish League for ruining his business.
because he had taken a vacant farm. The Chief Secretary endeavored to bring about a conference between representatives of the landlords' convention and of the United Irish League respectively with a view to settling the general terms on which the land could be transferred to the farmers. The landlords refused to take part in such a conference. In the sales which the Land Commission had effected the instalments paid annually were 4 per cent., extinguishing the debt in forty to fifty years, but the purchaser was required to pay at once 25 per cent. of the purchase money in cash. The instalments were considerably lower than the rents. The tenants were willing to pay eighteen years' purchase, but the landlords wanted twenty-seven years' purchase.

In August Parliament adjourned for an autumn session to begin in October. The conflict over the education bill was fiercer than ever and raged fiercer yet out of doors during the recess. Of the new rules of procedure only half had been carried, and the remaining ones had little chance of going through in the face of the obstinate resistance of the House. The London water bill was still in an incipient stage. The education bill was carried through the Commons by application of the closure. The Government accepted an amendment of the Home Secretary according to which a majority of the board of managers under a trust deed can control the religious education in a voluntary school by dismissing teachers and preventing the person from giving instruction if it is contrary to the doctrines and usages of the Church of England. In the House of Lords the Bishop of Manchester introduced an amendment throwing upon the school rates the expense of keeping the schoolhouses in repair.

Coronation of Edward VII. — The coronation of the King was appointed to take place in June. Great preparations were made, not only by the Government in fitting up Westminster Abbey for the ceremony, in decorating the streets of London, and in arranging processions, pageants, and feasts, but by the persons who were to take part in the spectacle, and especially by the business people who provided food, rciment, and stores. They were now many, and stands on the route of the procession for the multitudes that would gather from the various parts of the United Kingdom, from British colonies and dependencies, and from many foreign countries. Many speculative traders who involved their capital and credit deeply secured themselves against the King's death by insuring his life. A few weeks before the appointed date the King was seized with an acute attack of peritonitis or appendicitis. An operation was necessary which kept him confined to his bed, and in place of the festivities there was general anxiety and gloom, instead of thriving trade there was loss and stagnation in the retail business of London. The Australian Premiers, the Indian princes, the royal guests from European courts, the special envoys of foreign governments who had already arrived, with the nobility and gentry of the three kingdoms and thrones of visitors from abroad, disappeared into the country or scattered themselves over the Continent. All official plans of presentations and conferences were disarranged and missions and credentials had to be troubling the Peace of Ireland where there were no agrarian or political disturbances, though the excitement was rendered intense by the action of the Government.
Colonies and Dependencies. — British colonies are broadly distinguished as colonies having representative legislative bodies, or an executive responsible to the Crown, and Crown colonies. In the first class the executive power resides in the ministers, who are responsible to the colonial Parliament, and the Imperial Government assumes no right of veto or interference excepting for grave imperial reasons. In the second class the governor appointed by the Crown and the officials of his own selection forming his council have varying degrees of initiative and control in legislation according to the terms of the colonial charter. In Crown colonies the governor and his council are the legislative and executive authority under the British Colonial Office. The rights of the Crown in all colonial affairs are committed to the Secretary of State for the Colonies. The British Government spends about £2,000,000 on the colonies, mainly for military and naval purposes. From the colonial revenues Ceylon contributes £129,000 for defense; Mauritius, £26,000; Hong-Kong, £70,000; Straits Settlements, £120,000; Malta, £5,000; Natal, £40,000; West Africa, £10,000; Canada, £21,000; total £233,000. In addition, home charges and £335,000 for deferred pay of British troops serving in India. Egypt pays £20,000 for the army of occupation. The number of British garrison troops in the colonies in 1902 was 33,450, of which 5,406 were in Gibraltar, 10,840 in Malta, 135 in Cyprus, 15,185 in Cape Colony and Natal, 3,583 in Mauritius, including 2,064 at St. Helene, 517 at Canacon, 2,262 in Sierra Leone, 2,100 in Malta, 5,436 in Egypt, 1,783 in Halifax, 327 in Esquimalt, 3,968 in Bermuda, including 1,011 colonials, 1,774 in Jamaica, including 1,500 colonials, 1,529 in Barbados and St. Lucia, including 600 colonials, 1,778 in Ceylon, including 293 colonials, 2,719 in Straits Settlements, including 1,215 colonials, 4,455 in Hong-Kong, including 2,463 colonials, 1,280 in Wei-Hai-Wei, including 1,083 colonials, 1,130 not detailed, including 1,100 colonials. The British forces in India number about 100,000.
lish a special force for imperial service, practically under the control of the Imperial Government, would derogate from the powers of colonial self-government and tend to impede the general improvement of the defense forces in training and organization.

Gibraltar possesses in Europe naval bases in the Mediterranean at Gibraltar, Malta, and Cyprus. Gibraltar is a naval and military fortress over which a military officer is invariably appointed Governor, Gen. Sir George Stewart White in 1892, in whom are vested all legislative and executive powers. The area is less than 2 square miles, with a population in 1901 of 27,460, including the garrison. The local revenue was £61,418, and expenditure £28,812; military expenditure of the Imperial Government, £305,903. The aggregate tonnage entered in 1900 was 4,409,169, of which £2,017,505 tons were British.

The island of Malta has an area of 117 square miles, including Gozo and Comino, with a population of 188,141 in 1901. The Governor, Lieut.-Gen. Sir Francis Villiers Bennett in 1902, is assisted by a Council of 6 official and 13 elected members. The revenue in 1900 was £356,758, and expenditure £365,943. The chief sources of revenue are customs, £315,307; land, £12,901; local rates, £27,027; Excise, £21,526; internal tax, £29,390; licenses, £78,255. The expenditure was £136,384 for administration and £223,698 for other purposes. The debt is £79,168. Cotton goods, potatoes, oranges, figs, honey, and wheat are exported. The production of wine is the largest industry. The total value of imports in 1899 was £25,34,208, and of exports £26,471,567.

The trade for the most part is from Great Britain. The imports of foodstuffs and manufactured goods from the United States have increased since the establishment of direct steam navigation. Only one-third of the imports come from Great Britain. The British fleet and garrison have been greatly increased and a great number of families of British soldiers and of officers and men of the merchant marine have settled in the island. Works that are in progress have given profitable employment to the laboring class on the island. The British Parliament in 1901 voted £1,000,000 for harbor improvements, upon which the Governor imposed taxes to carry them out. The proclamation threatening to abolish Italian as the language of the courts in fifteen years roused excitement and resentment in Italy as well as in Malta, and consequently Mr. Chamberlain withdrew it in January, 1902. In cases where a British subject is tried criminally English is used, and in civil cases where a British subject is a party English may be used by either of the parties, the judge, or any one of the counsel, witnesses, or jury. Children in the schools have been taught for the first two years in Maltese, a dialect of Italian, with elements derived from Arabic and other languages. After two years parents were given the option of Italian or English as the language of instruction for their children. Nearly all chose English as of greater value in business and not to be learned at school as Italian could be. As the result of the agitation against the Anglicizing policy of the Government, Italian again became the choice of about a quarter of the objects in the first three months of the year. As a result, the withdrawal of the proclamation Mr. Chamberlain threatened that if the Council persisted in vetoing taxes and expenditures which, as far as they were necessary for the defense of the garrison or fortress were afterward decreed by orders in council, the Constitution would be modified so as to give the official members a majority over the elective members in the Council of Government. The Governor conveyed this warning to the Council, which voted only a month's supplies at a time, but refused the education vote, awaiting the decision of the Government as to the school language. The elective members resigned on Feb. 18 as a protest against the coercion and autocracy implied in the Governor's threat. The partial members voted supplies for schools and other purposes up to the end of the fiscal year. All the members who resigned were reelected on March 11 unopposed on a program protesting against the coercion and the substitution of English for Italian in the schools, but leaving room for conciliation. When the Council of Government assembled on March 21 the elective members refused to consider the estimates until the Government declared its policy on the language question. The Government announced that Maltese would be used only in the first year instead of two years. The Council would vote no money for education. Mr. Chamberlain refused to alter his policy. The Legislative Council passed an education bill to maintain only the Italian language in the schools and voted the estimates with this proviso. The Government disallowed the bill.

Cyprus is still a part of the Ottoman Empire, but the island is administered by Great Britain under a convention concluded at a conference held at London on June 4, 1878. The British High Commissioner, who has all the powers of a governor, is Sir William F. Haynes Smith. There is a Legislative Council of 6 official and 12 elective members. The area is 3,584 square miles, and the population in 1901 was 237,022, exclusive of the garrison, comprising 121,066 males and 115,956 females, 182,739 of the total number members of the Greek Oriental Church, 51,309 Moslems, and 2,974 Jews and others. Nicosia, the capital, had 14,722 inhabitants. The revenue, derived from tithes and military tax, military tax, licenses, military exemption, a tax on pigs, sheep, goats, customs and excise duties, stamps, and the salt monopoly, amounted in the year ending March 31, 1899, to £135,388. The public debt is £314,000, advanced by the British Government in 1899 for harbor works, railroads, and irrigation. A grant of £23,000 was given by the British Government for 1901. In 1902 a grant of £30,000 was voted. An annual tribute of £92,000 is paid to the Sublime Porte. The crop of wheat in 1899 was 53,973 tons; of barley, 61,012 tons; of olives, 3,423 tons; of cotton, 838 tons in 1898. Various fruits are raised, and grapes are made into wine. Other products are carobs, linseed, silk, cheese, wool, and hides and skins. The export of cucumbers, £20,000 or more are obtained off the coasts, but the fishers are foreigners. Gypsum, amber, and copper are the mineral products. The value of imports in 1900 was £29,027; exports, £238,371. The tonnage entered and cleared was 509,826. Irrigation wells have been dug, but so far the people do not use the water in ordinary seasons; and there have been frequent delays completing the scheme of irrigation.

Aden, a peninsula on the coast of Arabia, is a coaling station on the Suez Canal route to the S.W. of Egypt. The people are. At one time they announced the withdrawal of the proclamation Mr.
population in 1901 was 41,222, consisting of 25,180 males and 13,042 females. The imports in 1900 were 1,041,911, comprising 959,994 rupees by land, besides 2,461,323 rupees of specie; exports, 2,170,554 rupees by sea and 1,140,755 rupees by land, besides 3,643,502 rupees of specie. In 1900 there was visited by 1,224 steamers, of 3,467,965 tons. The number of local vessels was 1,687, of 52,906 tons. At Perim 646 merchant vessels called. Coffee, gums, hides and skins, piece goods, grain, and tobacco are imported and exported. The local revenue is raised by duties on opium, liquor, and salt. The Political Resident at the head of the administration is subordinate to the Governor of Bombay. The island of Socotra, with an area of 1,385 square miles and 12,000 of population, produce gums, dates, butter, and animal products. The Kuria Muria Isthmus connects this island with the Continent. The Stevinhons, having an area of 500 square miles and 25,000 inhabitants, was occupied in 1899. The lands near the coast have been sold to planters who raise tobacco, pepper, coconuts, Manilla hemp and ginger. The revenue for 1900 was $588,656 in silver; expenditure, $1,386,055, including $663,186 of capital expenditure on railroads and public works. The value of imports was $338,192; exports, $317,892. The exports of tobacco were 8,625 bales, valued at $292,000. Other exports are timber, trepang, pearls, gutta-percha, sago, coconuts, rattans, edible birds' nests, and various sea and jungle products. Labuan has been under the jurisdiction of the British North Borneo Company since 1889. The Governor of British North Borneo is Edward Woodford Bury, Bart., who is assisted by a Resident, and has charge of the British protection, having an area of 15,000 square miles and 6,000 population. Sago is the chief exportable produce. Sarawak, another native state, has an area of 89,200 square miles and 660,000 population. The Rajah is Sir Charles Johnson Brooke, born June 3, 1829, nephew of the founder of the state, an Englishman who obtained thecession of territory from the Sultan of Brunei. Much of the land has been sold to planters who raise the same products as in North Borneo. There are large beds of coal and deposits of gold, silver, tin, ginger, quicksilver, and saltpetre. The value of imports in 1900 was $6,150, 125; exports, $6,955,491; revenue, $915,966; expenditure, $901,172. A railroad from Jesselton, on the coast, is to be extended across the island, and has been completed for 92 miles. In eight years, during which the tobacco culture has been developed, the revenue has trebled and imports and exports have kept pace. In June, 1902, an expedition of 12,000 men which went up the Batang Laporan river to punish a tribe of Dyak head-hunters had to return because cholera suddenly broke out and caused 2,000 deaths in four days.

Ceylon has a Legislative Council of 9 official members and 5 representing the different races and classes. The area is 6,533 square miles. The population on March 1, 1901, was 3,575,900, showing an increase of 1.57 per cent. per annum, and 2,993,994 Europeans, 23,212 Burghers, 2,334,917 Singhalese, 922,237 Tamils, 234,719 Moors, 11,207 Malays, and 21,115 others, including 4,913 Boer prisoners, 3,215 Veddas, and 4,246 Javanese. The chief Tamil immigrants employed on the tea plantations numbered 441,223, an increase of 68.4 per cent. in ten years. The population of Ceylon, the capital and chief port, was 156,993. The revenue in 1900 was 27,325,930 rupees; expenditure, 25,322,988 rupees, exclusive of 3,626,939 rupees expended from the surplus on railroads. The revenue from currency was 7,528,292 rupees; from land sales, 818,796 rupees; from liquor licenses, 2,323,574 rupees; from stamps, 2,037, 052 rupees; from Government timber and salt, 1,485,006 rupees; from port dues, 1,518,378 rupees; from railroads, 8,239,679 rupees. The chief expenses were 6,049,057 rupees for civil establishments; 2,688,350 rupees of military expenditure, including £1,264,414 for the police force and the fortifications at Colombo, of which the Imperial Government paid 1,887,768 rupees; pensions and retiring allowances, 1,147,878 rupees; interest on loans, 310,674 rupees; expenditure on public works, 2,493,902 rupees. The public debt on Jan. 1, 1901, amounted to £23,419,451 sterling and 3,239,355 rupees, all of it incurred for public works, especially the railroads. The Colombo water-works, and the breeze-water. Besides the fortifications at Colombo, the Imperial Government maintains a naval harbor at Trincomalee, the headquarters of the fleet on this station. The colony has the erection of more fortifications at Colombo and the Imperial Government has furnished the guns. The British garrison numbers 2,982 men, and for its maintenance the colony pays the Imperial Government 1,845,065 rupees a year. The volunteer force numbers 2,112, costing 229,614 rupees in 1900. The total value of imports in 1900 was 122,239,725 rupees; exports, 108,929,257 rupees. The exports of tea were 63,735,257 rupees in value; of plumbago, 9,792,485 rupees; of coconut products, 6,438,308 rupees; of cacao, 1,561,456 rupees; of areca-nuts, 1,587,755 rupees; of rubber, 1,700,775 rupees; of cardamoms, 64,976 rupees. The exports of tea were 129,601,908 pounds in 1899, having grown from 2,382,357 pounds in 1884. The tea-crop of 1899 was 42,527 hundredweight, having increased nearly sixfold since 1885. Coffee exports declined from 824,509 hundredweight in 1879 to 12,692 hundredweight in 1898 owing to disease among the plants. When the British import duty on tea was raised in 1900 from 4d. to 6d. a pound the principal market for Ceylon tea, which was selling at an average price of 8d., was contracted and the export price declined. The area under tea in 1902, owing to this, was. 6,000 acres less than in the preceding year, while the acreage of rubber, cinchona, cardamoms, and cocoas increased correspondingly. The tea-crop of 1902 was abundant. The tonnage entered and cleared during 1900 was 8,487,940. The registered shipping on Jan. 1, 1901, consisted of 185 sailing vessels, of 13,380 tons, and 6 steamers, of 1,001 tons. The railroads completed in 1900 had a length of 297 miles, and 215 miles more were projected. There were 1,148 miles of telegraph and 306 miles of telephone lines. Tributary to the Ceylon Government are the Maldives Islands, having a population of 30,000 Mussulmans who are enterprising traders and sailors governed by a hereditary Sultan. The breakwater at Colombo will make that port a harbor of refuge between Bombay and
Calcutta, one of the largest artificial harbors in the world, with a slipway, a graving-dock, and a coal depot. About 35,000 men are employed on these works. The trade of the island is thriving, and a further extension of the harbor is contemplated. Great progress has been made in railroads and irrigation works. Pearl fishing has been extended by the Government. Exploration for gold was started by mining experts among the 5,000 Boer prisoners under Government auspices. All these prisoners, including some Americans, were returned to their own countries before the end of 1902.

The Straits Settlements comprise Singapore, Penang, and Malacca. The island of Singapore has an area of 206 square miles. The island of Penang has an area of 107 square miles. Province Wellesley, on the Malay peninsula, the Dinding, which belong to Penang, and Malacca, on the western coast, make the total area of the Straits Settlements 1,472 square miles. The population of Singapore in 1901 was 228,556, comprising 26,619 male and 1,015 female Europeans and Americans, 2,015 male and 2,015 female Eurasians, and 168,541 male and 54,370 female Asiatics; the population of Penang was 245,207, comprising 76,652 male and 2,951 female Europeans and Americans, 929 male and 1,016 female Eurasians, and 155,169 male and 98,933 female Asiatics; the population of Malacca was 96,487, comprising 44 male and 20 female Europeans and Americans, 754 male and 844 female Eurasians, and 50,661 male and 43,154 female Asiatics; total population of the Straits Settlements, 572,249, comprising 3,582 male Europeans and Americans, 3,889 male and 3,965 female Eurasians, and 372,071 male and 187,457 female Asiatics. The Asiatic population included 215,058 Malays, 231,933 Chinese, and 57,150 British Indians. The births recorded in Singapore in 1900 were 4,280, and deaths 9,785; in Penang, 2,377 births and 5,885 deaths; in the Dindings, 112 births and 125 deaths; in Province Wellesley, 3,930 births and 3,662 deaths; in Malacca, 4,075 births and 3,125 deaths. In 1900 the number of Chinese immigrants who arrived in the colony was 200,947; of Indian immigrants, 35,698, of whom 7,415 were indentured laborers; returned to India, 10,905. The acting Governor in 1902 was Sir F. A. Swettenham. The Government of the Straits Settlements is also High Commissioner for the Federation of Malay States and High Commissioner and Consul-General for Borneo. There is a Legislative Council of 9 official members, 5 other members appointed by the Governor, and 2 members representing the Chambers of Commerce in Singapore and Penang. The revenue of the colony in 1900 was $5,880,557, and expenditure $6,030,744. Of the revenue $3,317,088 came from licenses, $449,899 from stamps, $235,405 from the post-office, $109,532 from port dues, and $288,540 from land. Of the expenditure, $1,715,771 went for salaries, $1,814,621 for public works, $110,675 for education, $115,100 for police, $90,901 for the marine department, $169,383 for transport, and $95,051 for military expenses. Of the total revenue the sum of $3,244,096 was collected in Singapore, $1,736,113 in Penang, and $406,354 in Malacca. The debt of the colony on Jan. 1, 1901, was $8,085,290, and the assets were valued at $10,183,163. There is an armed police of 383 officers and 1,188 men. There is a volunteer artillery battery, numbering 4 officers and 116 men, and volunteer rifle companies of 150 men who have been formed in Singapore and Penang. The newly constructed harbor at Singapore is defended by modern fortifications at the cost of the colony, the expenditure having been $100,000. The Imperial Government furnished the guns and maintains a garrison of 1 battalion of infantry, 2 batteries of artillery, 150 miners, etc. The value of imports in 1900 was $314,889,600, of which $32,989,847 came from Great Britain, $99,063,860 from British colonies, and $182,353,353 from other countries. The value of exports was $292,617,345, of which $60,402,936 went to Great Britain, $33,778,914 to British colonies, and $168,436,375 to other countries. Of the imports, $201,759,900 went to Singapore, $71,220,412 to Penang, and $2,322,098 to Malacca, and of the exports, Singapore shipped $205,534,557, Penang $65,135,165, and Malacca $2,787,158. The imports of rice were $29,101,190; of opium, $15,496,401; of cotton goods, $14,749,301; of coal, $7,979,070; of fish, $1,756,731; of tobacco, $4,380,741; of petroleum, $4,265,130. The exports of tin were $60,707,802; of guns, $10,875,206; of tapioca and sago, $8,617,564; of gambier, $6,681,136; of copra, $4,574,193. The number of vessels entered in 1900 was 8,725,269 tons, besides 18,800 native vessels, of 721,359 tons; the number cleared was 8,722, of 7,231,220 tons, and 17,986 native vessels, of 754,199 tons.

The Federated Malay States are under British protection. Sir F. A. Swettenham has been Resident-General since 1896. British residents and other officials have directed affairs in Perak, Selangor, and Negri Sembilan. British officials and the superior native authorities form in each state a state council which has supreme control. Pahang was taken under British protection in 1874. The rulers of the frontier of Malacca were Confederated under the name of Negri Sembilan, to which was joined Sungei Ujong in 1895. When a Resident-General for the four protected states was appointed the states agreed to furnish troops for service in the colony in case of war between Great Britain and any other nation. Perak, with an area of 10,000 square miles, had in 1901 a population of 328,801, composed of 243,922 males and 84,879 females. Selangor, which has an area of 3,500 square miles, had 167,890 inhabitants, 136,977 males and 30,913 females. Negri Sembilan, having an area of 3,500 square miles, had a population of 96,028, divided into 64,565 males and 31,463 females. The area of Pahang is 10,000 square miles, and the population was 83,419, of whom 47,749 were males and 35,670 females. The total population was 768,138, comprising 1,361 Europeans, 1,531 Eurasians, 318,733 Malays, 305,364 Chinese, and 52,501 East Indians. The military force, called the Malay States guards, has 12 European officers and a strength of 632 men. There is a police force of 1,970 men officered by 39 Europeans. The revenue of Perak in 1900 was $7,656,125, and expenditure $6,144,744; the revenue of Selangor was $6,303,165, and expenditure $4,944,160; the revenue of Negri Sembilan was $1,251,366, and expenditure $1,009,318; the revenue of Pahang was $410,150, and expenditure $305,678; total revenue of the Federated States, $15,609,827; total expenditure, $12,725,300. Of the revenue, $7,050,382 came from the duty on tin, $2,992,491 from customs, $1,070,755 from licenses, $712,998 from land, and $191,525 from posts and telegraphs. Of the expenditures, $1,971,971 went for emoluments, $4,694,500 for railroads, $615,540 for public works, and Negri Sembilan has a debt of $39,458. Pahang one of $3,043,271. The British Government proposed to loan $500,000 to the federation in 1899 for railroad construction at the cost of all the money needed. The exportation
of tin in 1900 was 21,166 tons from Perak, 16,041 tons from Selangor, 4,300 tons from Negri Sembilan, and 953 tons from Pahang. The average export price was £130 a ton. From Pahang 17,048 ounces of gold were exported. Liberian coffee is cultivated in most of the states, and pepper, gambier, sugar, rice, and tapioca are valuable products. The trade of Pahang in 1900 amounted to £14,741,148 of imports and £29,190,166 of exports; of Selangor, £18,406,571 of imports and £21,788,444 of exports; of Negri Sembilan, £4,281,667 of imports and £7,048,888 of exports; of Pahang, £973,405 of imports and £2,322,950 of exports; total imports, £38,402,581; total exports, £38,402,581. Railroads in Pahang, 97 miles in Selangor, and 25 miles in Negri Sembilan on Dec. 31, 1900. Johor, a native state which has placed its foreign relations in the hands of the British, produces pepper, coffee, tea, gambier, sugar, and gutta-percha. The Cocos Islands, having a population of 564, have been administered from Singapore since 1900. The production of coconuts is in abundance and export oil and copra. Christmas Island, containing immense quantities of phosphate, were annexed to Singapore in 1900, when 350 Chinese, Malays, and Japs were taken to the island to dig phosphate, of which 15,000 tons were shipped in the first year and in 1901 as much as 200,000 tons. Hong-Kong, a Crown colony on the coast of China, is an area of 29 square miles and a population of 283,975 in 1900, exclusive of 13,237 soldiers and sailors. The white population in 1891 was 8,545, of whom nearly half were of Portuguese origin, one-third British, and the rest Germans, Australians, French, Spanish, etc. In 1900 the immigration from China was 121,322 and the number of Chinese emigrants was 8,643. In a convention signed on June 9, 1898, China leased to Great Britain for ninety-nine years the Chinese port of Kaulung and territory adjoining Mira Bay having an area of 375 square miles and a Chinese population of 100,000. A police force of 27 Europeans and 105 Indians has been organized for the new territory, where in 1900 a revenue from Crown rents of £17,330 was collected, while expenditure on police was £102,292 and on public buildings £3,384. The revenue of Hong-Kong in 1900 was £3,235,329 from ordinary sources and £967,257 from premiums on land and water account; the expenditure was £2,838,772, 679,888 for defense, works, and water, and other extraordinary purposes. On civil establishments the expenditure was £1,532,909. The British garrison is about 9,000 strong, and the volunteers number 366. The contribution of the colony in aid of military expenditure was £555,868 in 1900. The debt incurred for water-supply, fortifications, and sanitary works was £341,800. The assets of the colony exceeded the liabilities by £1,532,909 on Jan. 1, 1901. The imports are about £4,000,000 and exports £2,000,000. The free port of Hong-Kong is used for importing opium from India and for the trade in kerosene, salt, cotton goods, and many other imports, and it is the port from which much of the tea, silk, and other Chinese products are shipped. The registered shipping on Jan. 1, 1901, consisted of 17 sailing vessels, 6,590 tons, and 40 steamers, of 23,607 tons. During 1900 the number of visitors was 426,573 and the number of natives was 6,874,092, of which 7,021,982 tons, besides 17,732 junks, of 1,004,632 tons. About half the foreign trade is English, and the rest is mainly with India, Aus
tralia, and the United States. The Governor in 1902 was Sir Henry A. Blake.

We-Hai-Wei, a port on the peninsula of Shantung in China, was leased on July 1, 1896, to Great Britain for as long a period as the Chinese inhabitants shall retain possession of Port Arthur. The area of the leased district is 270 square miles, with 123,750 inhabitants. In a neutral zone beyond the leased territory, Great Britain has the right to erect fortifications and post troops for the defense of Wei-Hai-Wei, but Chinese administration must not be disturbed. Parliament voted £130,000 in 1896 for the defense of Wei-Hai-Wei. A battery of royal artillery 128 strong is garrisoned there, with 58 engineers, and 8 companies of Chinese infantry, 1,085 men, have been recruited and trained. The British Commissioner is J. H. Stewart Lockhart. The natives are fishermen and farmers. Salt fish of the value of £60,000 are exported. The British Government after building two forts abandoned the plan of making Wei-Hai-Wei a naval base. Early in 1902 the intention was announced of converting it into a sanatorium for officers and men of the fleet and a seaside resort for Europeans in Chinese ports.

Mauritius is an island in the Indian Ocean, having an area of 705 square miles and a population according to the census of 1891 of 361,472, exclusive of 2,835 soldiers living in barracks and 34,763 Mohammedans in 1891. The number of Chinese was estimated in 1900 at 3,228. The Orientals are displacing the white creoles as proprietors and planters. The number of Chinese in 1901 was 18,196,284, besides which a loan of £32,890 was authorized in 1899 for public works and one of £100,000 in 1901 for reforestation. The imperial garrison in 1900 was 2,139 men. The colony contributed £31,753 for military expenses. The value of imports in 1900 was 18,278,380 rupees; of exports, £1,403,206 rupees, of which £8,386,344 rupees represent raw sugar; 224,086 rupees, rum; 189,921 rupees, rayon; 940,432 rupees, coconut-oil, 46,479 rupees. There were 205 vessels, of 437,904 tons, and 208, of 333,706 tons, cleared. The registered shipping of the colony consisted of 63 sailing vessels, of 5,103 tons, and 3 steamers, of 407 tons. There are 165 miles of roads and 1,767 miles of telegraph-line, with cable connection with Zanzibar by way of the Seychelles and with Australia and Natal. The dependant island of Rodrigues has a population estimated at 3,183. Diego Garcia, the largest of the Chagos Islands, has 700 inhabitants, mostly negroes from Mauritius who extract coconut-oil, of which 4,002-hectoliters was exported in 1900. The Seychelles and dependant islands have an area of 148 square miles, with 20,575 inhabitants. The revenue in 1900 was 399,312 rupees; expenditure, 361,920 rupees, including a debt of 55,000 rupees repaid to the Mauritius Government. The imports in 1900 were 980,911 rupees in value; exports, 1,030,161. Coconut-oil, soap, vanilla, guano, fish, coffee, cacao, and tortoise-shell are exported. Most of the small islands and groups in the Pacific have been annexed by Great Britain, even the uninhabited rocks in the ocean. Fiji was annexed in 1874, and the islands of the Solomons and Western New Guinea in 1897. The Basutoland and Matabeleland were ceded by the native chiefs by treaty with a British agent, Sir George A. Blake, the most of the soldiers in this territory were discharged in 1902, and the remaining soldiers in the administration of the Boer War. The Government of Southern Rhodesia, under the term of the Barotse and the Mashona tribes, was replaced by that of a Crown Governor, Sir G. T. M. O'Brien in 1902, assisted by a Legislative Council of 6 official and 6 nominated members. The chief of the Basutos, Sir Henry A. Blake, was elevated to the rank of a baronet. The salaries of the officials and the salaries of the officials and the officials of the provinces and
preserve many of the native laws and customs. The islands have an area of 8,045 square miles, including Rotumah. The population of Fiji in 1901 was 117,870, comprising 2,447 Europeans, 17,105 East Indians, 94,367 Fijians, and 3,921 Polynesians and others. The revenue for 1900 was £111,569, the expenditure £100,022. The imports were £349,690 in value; exports, £219,536. European planters grow bananas, coconuts, and sugar, and the exports in the order of their importance are sugar, copra, rum, and bananas. The Governor of Fiji is High Commissioner of the Western Pacific, having authority to enforce the acts of Parliament for the protection of Pacific islanders and to settle disputes between British subjects living in the islands.

Timbucto is a group ruled still by a native king, George II, born in 1874, who was under the joint protection of Germany, Great Britain, and the United States until in accordance with the Anglo-German agreement of Nov. 14, 1899, England proclaimed a protectorate on May 19, 1900. The Legislative Assembly is composed half of nobles and half of elected representatives of the people. The islands have an area of 174 square miles, and a population of 63,689 Europeans. The revenue is about £100,000. The population of 1900 amounted to 70,011. The exports are copra, bananas, funus, mats, and fishnets. The neighboring Savage island was made a British protectorate on April 20, 1900. The Pitcairn Islands, a British settlement, produce coconuts, fruit, coffee, corn, and arrowroot. Norfolk Island, with an area of 10 square miles and 1,170 population, settled by Pitcairn Islanders in 1856, was attached to New South Wales in 1868. The New Hebrides are under the joint protection of France and Great Britain. A mixed naval commission was created in 1888 for the protection of natives and the adjudication of disputes between French and British. In 1902 each Government appointed a resident deputy commissioner to look after the interests of its nationals and keep them in order. French planters have acquired lands which British missionaries say they have no right to own in New Hebrides. Australia and New Zealand are jealous of any progress that the French make, desiring to annex the islands themselves. England is negotiating for an Anglo-German agreement. The British Solomon Islands, having an area of 8,357 square miles, were annexed in 1897 and 1898 and extended in 1900 by the addition of Choiseul and Isabel-Gumbe agreement. The revenue in 1900 was £1,454, to which the Imperial Government added £2,500 to cover an expenditure of £2,125. About 850 of the islanders were engaged in 1900 as contract laborers on the Queensland sugar plantations and 90 went to Fiji, while 500 returned. The exports in 1900 were £21,390, consisting of copra, tortoise-shell, ivory-nuts, etc. In the Mandeha group, about 1,000 natives live on an area of 12 square miles. The Tokelau group has an area of 7 square miles, with 1,550 inhabitants. The Ellice Islands, with an area of 14 square miles, have 2,400. The Gilbert Islands have an area of 166 square miles and a population of 35,200 and in 1900 exported £21,165 worth of copra. Scurroff, Duff, Victoria, Duff, Santa Cruz, Dun, Star, Mack, Menden, Juxta, Christmas, Fanning, Washington, Palmyra, Baker, Phoenix, and other islands are mostly coral atolls on which the coconut tree flourishes on rocky eminences covered with guano.

Ascension, an island in the Atlantic, is used as a coaling and victualing station and health station for the naval forces stationed on the west coast of Africa; it has an area of 35 square miles and a population of about 250 British sailors and marines and officers with their families and 180 Koomen. St. Helena, a volcanic island farther south, has an area of 47 square miles and had in 1901 a population of 9,850, including 1,532 soldiers of the garrison, 321 sailors, and 4,655 Boer prisoners. The resident population, of British descent, has been diminished by emigration to Cape Colony and the United States. The number of marriages in 1900 was 35; of deaths, 116. The revenue in 1901 was £25,904, and expenditure £25,250, imports were £288,282, and exports £4,215. The tonnage entered and cleared was 162,032. The Governor is R. A. Sterndale. Tristan da Cunha, a small island in the middle of the South Atlantic, with Gough's island, and Inaccessible and Nightingale islands, is a British possession of no military or commercial importance. About 60 persons, descendants of shipwrecked sailors who found wives in St. Helena, raise cattle, sheep, pigs, geese, beans, and potatoes for food and are visited every year by a British war- vessel. The Falkland Islands, near the coast of Patagonia, providing 23 square miles and a population in 1901 of 2,043, consisting of 1,203 males and 840 females. The Governor, William Grey Wilson, is assisted by an Executive Council and an elective Legislative Council. Wool, skins, and tallow are exported. The value of exports in 1900 was £266,848, and of exports £111,536. The revenue was £215,576, expenditure, £215,501. There are 792,000 sheep on the islands.

The Bermuda Islands, in the north Atlantic, have an area of 20 square miles and a population in 1901 of 17,535, of whom 9,383 are whites and the rest colored and negroes. The number of marriages in 1900 was 162; of births, 681; of deaths, 423. The Governor is Lieut.-Gen. Sir H. L. G. Geary. There is a Legislative Council of 9 nominated members and a House of Assembly of 36 members elected by 1,124 registered voters. The revenue in 1900 was £40,124, and expenditure £39,878, and £39,878 contributed £2,200 in 1902, when revenue was estimated at £41,406, and expenditure at £41,491. The public debt in 1900 was £24,900. The value of imported land dispute £290,000, and £288,000 consigned to £37,669. The value of onions exported was £43,486; potatoes, £25,207; lily-bulbs, £11,382. The tonnage entered and cleared in 1900 was 1,209,352. The Resident Commissioners consisted of 24 sailing vessels, of 6,506 tons, and 2 steamers, of 64 tons. There are 176 miles of land telegraph and 15 miles of cable, and the telephone company has 700 miles of wires.

British Guiana has an area estimated at 120,000 square miles, with 278,328 inhabitants, of whom 2,533 are Europeans, 105,663 East Indians, 3,714 Chinese, and 29,615 of negro descent. In 1901 the number of Indian coolies arriving was 4,464, while 1,017 returned to India. The Governor is Sir James Alexander Swettenham. There is a Court of Policy consisting of 7 officials and 8 elective members, to which are added 6 elective financial representatives to form the Combined Court. There are 2,467 registered voters. The revenue in 1901 was £209,950, and expenditure £205,492. Of the revenue, customs yielded £310,606; licenses, £87,780; duty on rum, £21,991; royalty on gold, £16,639. Of the expenditure, the civil establishment was £105,443; ecclesiastical expenditure, £21,942; judiciarly, £28,730; introduction of immigrants, £28,865; education, £27,933; public works, £21,
568. The public debt in 1900 was £764,780. There were only 79,954 acres cultivated in 1900, of which 66,954 acres were planted to sugar-cane. The gold-mines, first opened in 1886, yielded in ten years the value of £2,798,600. In 1897 there were 126,702 ounces taken out, 125,080 ounces in 1898, 112,404 ounces in 1899, 112,823 ounces in 1900, and 108,622 ounces in 1901, in which year 904 carats of diamonds were exported, valued £12,876. The total value of imports was £1,303,529, and of exports £2,068,466. The importation of sugar was £1,238,190, in value, 178,745 barrels in quantity; cloth, £318,424; rice, £79,812; tobacco, £17,278; machinery, £77,336; fertilizers, £100,927; fish, £59,728; coal, £36,001; hardware, £48,766. The exportation of sugar was £1,153,808; molasses, £12,271; rum, £300,583; balata, £19,385; timber, £22,928; charcoal, £7,336; gold, £393,925; rough diamonds, £2,663. The tonnage entered and cleared in 1901 was 799,929. The registered shipping of the colony consisted of 33 sailing vessels, of 1,622 tons, and 15 steamers, of 1,711 tons. There are 74 miles of railroads, 559 miles of telegraph-lines and cable, and 5,000 miles of telegraph. The gold-mining industry is languishing, though alluvial gold is now mined at half the cost that the sanguine operators expected ten years ago. Hydraulic mining is prevalent, in which the public, may give a fresh impetus to this industry, which speculative capitalists have abandoned for diamond-mining. Americans are working the diamond deposits and German and Dutch companies the gold mines.

British Honduras is a settlement in Central America governed as a Crown colony, having an area of 7,562 square miles and a population estimated at 38,998, divided into 18,589 males and 18,109 females. The number of births in 1900 was 1,478; deaths, 590; marriages, 359. The Governor is Sir David Wilson. The revenue in 1900 was £29,700; expenditure, £50,800; imports, £245,950; exports, £267,900. The debt in 1900 was £33,736. The export of logwood was 7,994,375 feet in 1900. Some sugar is exported and fruit to New Orleans, and in transit from Yucatan rubber, coffee, and sarsaparilla. The tonnage entered and cleared in 1900 was 340,000. The population of the colony comprised 203 sailing-vessels, of 4,480 tons, and 6 steamers, of 1,326 tons. The more important British possessions are elsewhere described (see Australia, New Zealand, Malay Archipelago). Fiji, New Guinea, New Zealand, South Australia (South Africa, West Indies).

GREECE, a monarchy in southeastern Europe. The legislative authority is exercised in a single chamber called the Boule, composed of 235 members, 1, to 12,000 inhabitants, elected for four years by direct universal male suffrage. The reigning King is George I, son of Prince Christian of Schleswig-Holstein-Sonderburg-Glucksburg, now King of Denmark, born Dec. 24, 1845, elected King of the Hellenes by the National Assembly on March 30, 1863, married on Oct. 27, 1867, to Olga, daughter of the Grand-Duke Constantine of Russia. The heir apparent is Prince Konstantinos, Duke of Sparta, born Aug. 2, 1868, married on Oct. 27, 1899, to Princess Sophia, daughter of the late German Emperor Friedrich I. The Cabinet constituted on Nov. 23, 1901, was composed as follows: President of the Council and Minister of Finance, P. Negris; Minister of Justice, C. Topalitis.

Area and Population.—The area of Greece is 25,014 square miles. The population in 1896 was 2,433,806, divided into 1,286,816 males and 1,166,990 females. Athens, the capital, had 111,486 inhabitants. The chief political divisions are nomarchies, the number of which was increased by the law of July 29, 1890, from 18 to 26: Attica, Boiotia, Phthiotis, Phocis, Eтолia and Acarnania, Eurytania, Larisa, Magnesia, Trikalla, Karditsa, Artia, Achaea, Elia, Triphylia, Messenia, Lacedemon, Leoncopon, Arcadia, Argolis, Corinthia, Eu- bea, Cyclades, Corfu, Leucas, Cephalonia, Zante.

Finance.—The revenue in 1900 was 112,206,849 drachmas, and expenditure 114,988,468 drachmas. For 1901 the revenue was estimated at 115,734,159 drachmas, of which direct taxes produce 23,883,300 drachmas, customs and excise 41,295,728 drachmas, stamps and dues 17,305,100 drachmas, monopolies 13,840,250 drachmas, revenue from state property 5,935,250 drachmas, sales of state property 1,231,300 drachmas, deductions, etc., 2,220,372 drachmas, lighthouses 860,000 drachmas, other revenue 258,550 drachmas. The expenditures for 1901 were estimated at 113,846,302 drachmas, of which the public debt, 32,344,900 drachmas, pensions 6,560,343 drachmas, allowances 103,800 drachmas, various obligations 185,000 drachmas, the civil list 1,325,000 drachmas, the Boule 654,820 drachmas, the Ministry of Foreign Affairs 2,846,018 drachmas, the Ministry of Justice 6,243,573 drachmas, the Ministry of the Interior 15,140,567 drachmas, the Ministry of Education 3,982,657 drachmas, the Ministry of Marine 17,393,015 drachmas, the Ministry of Finance 2,043,472 drachmas, collection of taxes 9,438,236 drachmas, various expenses 8,910,628 drachmas.

The national debt on Jan. 1, 1901, amounted to 697,554,000 drachmas in gold, 79,849,005 drachmas of paper obligations, and 91,775,975 drachmas of forced paper currency. A financial commission composed of delegates of Germany, Austria-Hungary, France, Great Britain, Italy, and Russia was established by the treaty of Berlin of June 28, 1896. In 1898, and to this commission the revenues from monopolies, tobacco, stamps, and customs duties collected at the Piraeus were assigned for the payment of interest on foreign obligations. The rate of interest was altered and provision was made for the extinction of the debt. A loan of 226,000,000 drachmas to Turkey, redeeming the floating debt of Greece, and covering deficits was guaranteed by these powers, through whose diplomatic intervention peace had been arranged with Turkey. The service of the various debts in 1901 required 35,553,728 drachmas. The revenue from customs in 1900 was 30,650,778 drachmas. Of the assigned revenues the receipts from the Piraeus customs were 17,498,135 drachmas in paper; from Naxos emery, 6,327,473 drachmas in gold; from the salt monopoly, 2,807,473 drachmas; from petroleum, 6,366,490 drachmas; from matches, 1,329,247 drachmas; from playing-cards, 311,755 drachmas; from cigarette paper, 2,629,599 drachmas; from tobacco, 8,436,719 drachmas; from stamps, 10,232,940 drachmas; total, 49,575,288 drachmas in paper and 673,907 drachmas in gold. The internal revenue commission in the year ending Jan. 13, 1902, took in 1,131,705 drachmas in gold and 58,041,476 drachmas in paper and paid out 950,004 drachmas in gold and 48,863,563 drachmas in paper. The pay-
ments in gold on the public debt amounted to 15,036,609 drachmas, of which 12,251,832 drachmas went to holders of coupons, 6,087,000 drachmas of this to England, 3,131,000 drachmas to France, and 524,299 drachmas to Greek bondhold-ers. The mean rate of exchange was 165.

The Army and Navy. — The authorized strength of the regular army in 1901 was 61 officers and 1 man on the general staff and in the Ministry of War, 101 officers and 1,285 men in the engineer corps, 218 officers and 2,247 men in the artillery, 96 officers and 1,285 men in the cavalry, 873 officers and 9,806 men in the infantry and rifles, 355 officers and 417 men in general services, 28 officers and 75 men in military schools, and 144 officers and 3,918 men in the gendarmerie; total, 1,976 officers and 19,203 men, with 3,218 horses, 703 mules, and 180 guns. The period of service is two years with the colors and ten years in the reserve, and in case of war 82,000 men could be mobilized, and 90,000 more in the National Guard, which comprises able-bodied Hellenes between the ages of thirty-three and fifty-one.

The naval force consists of the belted cruisers Hydra, Spsatias, and Psara, of 4,885 tons, built in 1899 and 1890, which carry 3 10.6-inch guns in turrets and 28 smaller guns; 2 old ironclads armed with 6-inch Krupp and 10 small guns; 16 unprotected cruisers and gun-boats; and 7 large torpedo-boats and 44 small ones. The navy was manned in 1901 by 363 officers, 1,170 seamen, and 957 ratings and seamen. Conscripts among the seafaring population are drafted into the navy and other sailors are enlisted.

Production and Industry. — Of the total area of Greece about 2,300,000 acres are under crops, vineyards, or orchards, 1,200,000 acres are fallow, 2,000,000 acres are forest, 5,000,000 acres are pasture, and 3,000,000 acres are unproductive. About 7,000,000 bushels of wheat, 3,000,000 bushels of barley, 2,700,000 bushels of corn, and 7,000,000 bushels of other grain are raised. Cereals occupy 1,111,500 acres; cotton is grown on 14,800 acres, and tobacco on 12,000 acres; the area under currants, the peculiar crop of Greece, on which its prosperity has largely depended, is 189,455 acres, while bilberries cover 452,000 acres, vineyards 330,000 acres, and figs and other fruits 52,000 acres. The average crop of currants is 130,000 tons. Under the retention law of 1895, remittances to England in ten years in 1890, the Government retains 10 per cent, or more of the currant-crop, which is used for wine or brandy. The crop in 1900 was 51,300 tons, of which 45,700 tons were available for export and 40,255 tons were exported. The crop of valonia was 7,700 tons. In Messenia, where the silkworm is grown, 44,000 pounds of cocoons were produced and 37,400 pounds of silk were spun. About 8,240 tons of olive-oil soap are manufactured annually. In the Laurium district, where French capital has been invested, the mining products in 1900 included 82,045 tons of manganese ore, 171,377 tons of hematite, 18,555 tons of zinc ore, 1,552 tons of galena, and 264,814 tons of inferior lead ore yielding 10,710 tons of silver lead.

The total value of special imports in 1900 was 129,988,066 drachmas in gold; of exports, 102,080,318 drachmas. The imports of cereals were 33,594,882 drachmas in value; of tissues and yarn 1,359,035; of tobacco 486,299 drachmas; of hemp 1,401,885 drachmas; of lumber, 11,142,501 drachmas; of fish and caviar, 6,166,303 drachmas; of metals and ores, 5,644,493 drachmas; of chemicals, 4,164,055 drachmas; of hides and skins, 3,388,853 drachmas; of live animals, 3,370,954 drachmas; of paper, 3,988,032 drachmas; of coffee, 2,748,584 drachmas; of sugar, 2,569,526 drachmas; of earthenware and glass, 2,020,885 drachmas; of rice, 1,642,030 drachmas; of coal, 1,294,367 drachmas. The exports of dried currants were 62,890,540 drachmas in value; of oars, 20,510,742 drachmas; of wine, 4,812,675 drachmas; of tobacco, 3,504,843 drachmas; of figs, 2,429,788 drachmas; of olive-oil, 2,344,225 drachmas; of valonia, 1,619,101 drachmas; of silk and cocoons, 1,418,140 drachmas; of sponges, 884,700 drachmas; of brandy, 708,707 drachmas; of emer- e, 633,088 drachmas; of gunpowder, 603,225 drachmas; of fruits, 286,782 drachmas; of olives, 281,834 drachmas; of soap, 187,530 drachmas; of cement, 181,458 drachmas.

Navigation. — During 1900 there were 5,304 vessels, of 3,113,688 tons, entered and 5,223, of 5,101,065 tons, cleared at Greek ports. The merchant navy on Jan. 1, 1901, consisted of 972 sailing vessels, of 183,871 tons, and 137 steamers, of 115,530 tons.

Railroads and Telegraphs. — The length of railroads open in 1900 was 603 miles. At that time 602 miles were building. A line from the Piraeus to the Turkish frontier, to be built with a loan of 44,000,000 drachmas guaranteed by the Government, was begun in 1902 and is expected to be completed in 1905.

The telegraph-lines, inclusive of cables, had a total length on Jan. 1, 1899, of 5,300 miles, and the length of wire in officers, stokers, and seamen. Conscripts among the seafaring population are drafted into the navy and other sailors are enlisted.

GUAM—GUATEMALA.
of the republic is elected for six years by the direct vote of the people, and is ineligible for the next term. The Senate, 32 members, elected for six years by the votes of all adult male citizens having visible means of support. The President is elected by the National Assembly for seven years. Gen. Andranik, 46 years, was elected to the Senate in 1896, for the remainder of Gen. Hippolyte's term, expiring May 15, 1902.

The Cabinet in the beginning of 1902 contained the following members: Secretary of State for Foreign Affairs and Worship, Brutus San Victor; Secretary of Finance and Commerce, P. Faine; Secretary of the Interior and Police, Tancrède Auguste; Secretary of Agriculture and Public Works, C. Leconte; Secretary of Justice and Public Instruction, Gédeon Gédeon; Secretary of War and Marine, V. Guillaume.

Area and Population.—The area of Haiti is estimated at 18,920 square miles. The population in 1900 was 2,270,000. The capital is a city of 327,388 inhabitants, of whom over 80 per cent. are of European origin. Of the indigenous population the majority are pure Indians and the rest mostly of mixed blood.

Finance.—The ordinary revenue in 1899 amounted to $9,311,762 in currency, and expenditure to $11,357,681. The deficit was met by means of an extraordinary revenue of $3,709,606, making the total revenue $11,064,188. For 1901 the revenue was estimated at $9,770,000, of which $4,340,000 came from customs, $3,700,000 from taxes, and $1,750,000 from monopolies. The expenditure was estimated at $9,611,800, of which $3,157,856 were for finance and public credit, $1,299,000 for war, $1,515,815 for education, and $4,421,554 for the interior and justice. The military force, which absorbs 10 per cent. of the revenue, consists of a standing army of about 7,000 officers and men.

Earthquakes occurring in succession from April 8 till April 24 did damage in all parts of the republic and destroyed Patzum, Anamitlan, San Marcos, Santa Lucia, Mazatenango, Solola, and San Felipe. Guatemalan was left in ruins. The buildings and machinery on the plantations in the largest coffee-growing district were wrecked. Hundreds of persons were killed, and the property loss amounted to $3,750,000.

From Oct. 24 the volcano of Santa Maria burst forth, covering with ashes the country for 30 miles around, the best coffee district in Guatemala. The money loss is estimated at $5,000,000. The inhabitants were suffocated by sulphurous gases, about 7,000 in all, including the population of 10 Indian villages. Over 300,000 hundredweight of coffee was destroyed with the plantations, buildings, and cattle. Most of these properties belonged to Germans. Distress and partial famine afflicted the central and western parts of the republic as a result of the disaster. Eruptions from new craters in November extended the area of desolation. (See Earthquakes and Volcanic Eruptions.)

Navigation.—Fruit steamers from New Orleans call at Puerto Barrios and other ports. The number of vessels entered in 1898 was 825; cleared, 815.

Railroads.—There is a line of railroad from the capital to San José, 75 miles, and a branch runs from Santa Maria to Ratulul, 33 miles, which will be carried to Mazatenango, 34 miles, to connect with a line which is being built from Puerto Barrios to the capital, 210 miles, of which 134 miles have been completed. When the two railroads meet they will afford continuous transit between the Atlantic and Pacific coasts.
blacks and the rest, with few exceptions, are mulattoes.

**Finance.**—The revenue for 1901 was estimated at $4,198,337 in paper and $2,536,100 in gold. The estimated expenditure was $4,200,264 in paper and $2,536,229 in gold, of which $24,124 in paper and $79,159 in gold were for the Ministry of Foreign Affairs, $514,932 in paper and $410,000 in gold for the Ministry of Finance and Commerce, $1,325,870 in paper and $125,500 in gold for the Ministry of the Interior, $216,278 in paper and $60,400 in gold for the Ministry of Public Works, $222,094 in paper and $55,000 in gold for the Ministry of Agriculture, $690,709 in paper and $4,885 in gold for the Ministry of Public Instruction, $356,000 in paper for the Ministry of Justice, $31,332 in paper and $57,305 in gold for the Ministry of Worship, $66,935 in paper and $69,572 in gold for the National Bank, and $47,519 in paper and $2,187,143 in gold for the public debt. The debt on Jan. 1, 1901, consisted of $12,960,642 of 5- and 6-per-cent. external gold bonds and $6,372,183 of currency and $6,115,091 of gold internal bonds, part of which was secured by mortgages upon property in gold. There were $3,749,000 of paper money in circulation in 1899 and $3,500,000 of silver, and there were believed to be about $1,200,000 of American gold.

**Commerce.**—According to the latest statistics, the commerce of Haiti in 1901, the first year of peace, showed a considerable increase over the preceding year. The total imports were 65,905 metric tons, valued at $4,312,000 for imports and $11,800,000 for exports in 1899. The exportation of coffee reached 72,122,781 pounds in 1900; cacao, 4,626,997 pounds; sugar, 11,884,530 pounds; coffee, 2,290,000 pounds; spices, 374,500 pounds; copper, 41,500 pounds. Wood gum, resin, cabin woods, gossakins, and beeswax are exported. Of the imports in 1901 the value of $2,533,192 came from the United States, $490,510 from France, $325,411 from Great Britain, and $272,906 from Germany. Mining copper is an enterprise not long established. Concessions of coal and iron-mines have been granted. Gold, silver, iron, tin, antimony, nickel, kaolin, and gypsum are found. The coffee trade is retarded and the exportation of cattle has been checked by the imposition of heavy export duties.

**Navigation.**—The number of vessels entered and cleared at Port-au-Prince during 1900 was 183, of 250,002 tons; at Léogâne, 161, of 185,725 tons; at Cape Haitien, 162, of 304,360 tons.

**Railroads.**—Only 10 miles of railroad have been built in Haiti, running from Cape Haitien in a direction towards the Saut d'Éau, 12 miles distant. Branches will connect the port with Ouanaminthe, 35 miles, and Limbe, 19 miles. A concession was granted in 1900 for a railroad from Port-au-Prince to Salt Lake, 50 miles, which will be the first section of a line connecting the Haitian capital with Santo Domingo, the capital of the Dominican Republic.

**Revolutionary Disturbances.**—The election of a President of Haiti was not possible without a revolutionary struggle. The National Assembly had declared that Gen. Tiresias Simon's term would not expire till May, 1903. The rival politicians rallied to the Senate, and with a few others, took possession of the capital. The President then resigned and went to France. Gen. Nord assumed the presidency, and he called for a national conference to discuss the constitution of Haiti. This conference assembled and met in Port-au-Prince, May 2, 1903, and proceeded to dissolve the Senate and to form a new one. The conference then prepared a constitution, which was submitted to the people for ratification. The result of the vote was a majority in favor of the constitution. The President then proclaimed the constitution, and the Constitution was declared to be in force on January 1, 1904. The Constitution provided for a bicameral legislature, consisting of a Senate and a House of Representatives, and for a President, who should be elected by the people for a term of six years. The President was to be the head of the government, and the Commander-in-Chief of the armed forces.

**American Troops.**—The American troops stationed in Haiti were withdrawn on June 30, 1904, but the United States retained a naval station at Cap-Haïtien, and a military reservation at Port-Au-Prince. The American flag was lowered on July 1, 1904, and the Haitian flag was raised in their stead.

**Financial Resources.**—The financial resources of Haiti were meager, and the government was in debt. The national debt amounted to about $10,000,000, and the annual revenue was estimated at about $500,000. The government was in the hands of a few wealthy and influential men, who controlled the legislature and the executive.

**Political Situation.**—The political situation in Haiti was disturbed by the revolution of 1903, which resulted in the formation of a new government, and the withdrawal of the American troops. The new government was not stable, and there were frequent changes in the administration. The country was in a state of disorder, and the government had little control over the people.

**National Defense.**—The national defense of Haiti was in a deplorable state. The army was small and poorly equipped, and the navy was weak. The government had little money to spend on defense, and the people were too poor to pay for it. The country was liable to invasion by foreign powers, and there was a constant threat of revolution from within. The government was weak, and there was no effective defense against it.
the foreign representatives, but it was powerless to assert its authority in any of the towns. The congressional elections, wherever an attempt was made to hold them, ended in disorder and bloodshed. In the Artibonite provinces Gen. Firmin was proclaimed President. With his army he marched once more on Port-au-Prince, while Admiral Killick again threatened to bombard Cape Haitien. The Provisional Government declared Admiral Killick a public enemy, despatched war vessels to capture him. Soon afterward the Provisional Government dissolved, its authority over the country and cohesion among its members having vanished. Civil war was declared throughout the country. The Provisional Government was afterward reconstituted, some of its former members having taken to flight. Gen. Salnave with Firminist troops advanced to attack Cape Haitien and again repulsed Gen. Alexis Nord, who marched out to meet him. Commander McCrea arrived in the Machias, which had been at Colon. He warned Admiral Killick against bombarding without notice. Coal for the Crête-a-Pierrot was seized by the Provisional Government. Admiral McCrea and Killick declared a blockade at Cape Haitien, but he did not remain there constantly with his vessel, and Commander McCrea and the consuls refused to recognize a blockade. The American naval commander, who was charged with the protection of all European interests as well as those of the United States, informed Admiral Killick that the blockade was null and void, and warned him against searching any foreign vessel. Petit Goave was entirely destroyed on Aug. 8, having been set on fire by Gen. Chicoye, the revolutionary commander, before he retreated. On Aug. 28 Gen. Nord fought another hard battle for the defense of Cape Haitien, this time with Gen. Jean Jumeau, another Firminist commander. The German merchant steamer Marcoumianna was stopped at the entrance of Cape Haitien harbor by the Crête-a-Pierrot, and arms and ammunition for Gen. Nord were confiscated. The German cruiser Panther arrived from Port-au-Prince, pursued the Haytien vessel on Sept. 5 to Gonavés, and there signaled to her commander to strike his flag and abandon the ship. This was done, but the powder-magazine exploded, and Commander Eckmann, instead of capturing the vessel, which was now burning, sank her by firing a shell into the other powder-magazine. Admiral Killick had fired the after magazine and went down with his ship. Gen. Firmin formed a Provisional Government at Gonavés and appointed a Cabinet. Gen. Jumeau, his position at St. Michel becoming untenable after he lost a small battle, burned the place to prevent it from falling into the hands of the Government. The Government troops threatened Gonavés and St. Marc, but afterward retired, and Gen. Jumeau collected his forces and advanced toward Port-au-Prince. The representatives elected to the National Assembly met there and organized. Those whose credentials were accepted showed a majority in favor of the election of Senegue Pierre to the presidency, and his opponents endeavored to defeat him by absenting themselves, so that there was a quorum for the election of Senators. Exiled and proscribed persons departed on every foreign steamer. The delay in the election of a President was approved by men of all parties who desired to await the result of the impending battle between the forces of Gen. Alexis Nord and Gen. Jumeau, who confronted each other again, each with about 3,000 men. They met at Limbe, and after a battle lasting two days, in which both sides lost heavily. Gen. Nord retreated. The Provisional Government declared the ports of Gonavés, St. Marc, and Port-de-Paix, held by the Firminists, closed, but this the United States Government would not allow in the absence of his army he marched again on Port-au-Prince, while Admiral Killick again threatened to bombard Cape Haitien. 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per cent. interest, in 1869 a loan of £2,176,570 at 6% per cent., and in 1870 one of £2,242,500 at 6% per cent. The total empire debt, on which no interest has been paid since 1872, and that of which the arrears amounted on June 30, 1901, to £13,363,082. The internal debt on June 30, 1900, amounted to £1,800,819 in silver.

Commerce and Production.—The most profitable industry is growing bananas in the coastal region for export to the United States. Tobacco, sugar, and coffee are cultivated; indigo, rice, and wheat also on a limited scale, and corn extensively. Large numbers of cattle are reared, and in a small way dairying is carried on. The plaiting of hats is a common occupation. The agricultural possibilities of the country are great, but development is slow on account of the scarcity of good laborers. For the same reason and for lack of transportation there is little mining enterprise, although gold, platinum, silver, copper, lead, zinc, antimony, nickel, and iron are found in many places. Coal deposits have also been discovered. The value of imports in the year ending June 30, 1900, was £5,315,600, and that of exports £2,635,600. The exports of metals were £803,920; bananas, £720,600; cattle, £671,800; wood, £116,854; coffee, £45,510. The United States furnished 72 per cent. of the imports and took 64 per cent. of the exports.

Railroads, Posts, and Telegraphs.—The railroad from Puerto Cortez to La Pimienta, 60 miles, was built for the Government by English contractors who undertook to carry the line from ocean to ocean, but stopped when the Government could raise no more money. A railroad through the banana districts from Omoa to Truxillo has been contracted for.

There were 337,589 domestic and 200,548 foreign letters despatched in 1898. The length of telegraph-wire in 1899 was 2,730 miles.

HUSBANDRY, PATRONS OF. (See Orange, National.)

IDAHO. (See under United States.)

ILLINOIS. (See under United States.)

INDIA, an empire in southern Asia under the sovereignty of the King of Great Britain and Ireland, who bears the title of Emperor of India, on the basis of a personal union. The empire is governed under general acts of the British Parliament. In 1861, Edward Fitzgerald Law, Secretary for India in Parliament, on instructions from the Secretary of State for India, a member of the British Cabinet. The Governor-General, popularly called the Viceroy, is advised by his Council, containing 5 ordinary members appointed for five years. The commander-in-chief of the forces is a member ex officio. The members of the Governor-General's Council are appointed by the Governor-General on the recommendation of certain public bodies, form the Legislative Council, which has power to make laws, subject to the approval of the Governor-General and to the veto of the British Government, for all persons in British India, for British subjects in native states, and for native Indian subjects of the King in foreign countries. British India is divided for purposes of administration into the presidencies of Madras and Bombay, each of which has a governor at the head of the local provincial administration; the lieutenant-governors of Bengal, the Northwest Provinces and Oudh, the Punjab, and Burma; and the chief-commissioners of Assam and the Central Provinces. Coorg, Ajmere and Mewara, British Baluchistan, and the Andaman Islands are minor chief-commissioners. Each Governor and Lieutenant-Governor has his Legislative Council. The 9 provinces are subdivided into about 250 districts, each in charge of a collector-magistrate or deputy commissioner. These officers, responsible to the governor of the province, in their districts have absolute authority, and in many the district magistrate's executive and judicial functions are united. The new Northwestern Frontier province was established on Nov. 30, 1901, with Peshawur as the seat of the administration. It embraces Peshawur, Kohat, Bannu, and Dera Ismail, districts of the Punjab lying beyond the Indus, with the whole of the Khara district and the agencies of Swat, Chitral, the Khaiber and Kurram passes, Tochi, and Wana, and is under the administration of an agent to the Governor-General, Lieut.-Col. H. A. Deane.

The Governor-General of India is George Nathaniel Curzon, eldest son of the Earl of Scarsdale, born Jan. 11, 1859, created Baron Curzon of Kedleston on his appointment to the governor-generalship in September, 1898. The members of the Governor-General's Council in the beginning of 1902 were as follows: Major-General Sir R. E. Ells, Sir C. M. Rivaz, Sir Edward Fitzgerald Law, Thomas Raleigh, A. T. Arundel, and D. Ibbetson. The Governor of Madras was Lord Ampthill; Governor of Bombay, Lord Northcote; Lieutenant-Governor of Bengal, Sir J. Woodburn; Lieutenant-Governor of the Northwest Provinces and Chief Commissioner of Oudh, Sir J. J. D. L. Touche; Lieutenant-Governor of the Punjab, Sir C. M. Rivaz; Lieutenant-Governor of Burma, Sir F. W. R. Fryer.

Enclosed in British territory or on the borders are native states whose rulers are controlled by the Indian Government through residents or political agents. The degree of interference in their internal affairs varies, but no chief of a native state is permitted to enter into diplomatic relations with other chiefs or with foreign nations or make war or to maintain a military force exceeding a specified limit; nor can any European reside at his court without the permission of the Indian Government; and in cases of misgovernment the Indian Government exercises the right of dehonring the native ruler. An annual tribute is paid by some of the native chiefs, all of whom are nominally tributary, though in many cases no payment is required.

Area and Population.—The area of the British provinces and their population, according to the preliminary returns of the census of March 31, 1901, are given in the table on page 333.

The Berars are a native state under British administration provisionally. The total population consisted of 117,440,652 males and 113,844,480 females.

The area of the native states, groups of states under a political agent, and their population according to the preliminary census reports are given on page 333. Of the states of Rajputana, Jodhpur, with an area of 34,963 square miles, has 4,537,220 inhabitants; Bikaner, area 22,340 square miles, has 2,278,273; Udaipur, area 12,753 square miles, has 3,750,000; Jaipur and feudatories, area 15,579
square miles, have 6,623,858; Alwar, area 3,114 square miles, has 2,743,556; Kota, area 3,784 square miles, has 2,443,420; Bharatpur, area 1,492 square miles, has 2,751,728. In Central India, Indore, area 8,400 square miles, has about 7,000,000 population; Rewa, area 12,675 square miles, has 1,600,000; Bhopal, area 5,978 square miles, has 4,000,000; and Gwalior, area 29,047 square miles, has 3,050,000. Of the Punjab, Lahore, area 1,582 square miles, has 4,000,000; and the Cutch, with an area of 6,630 square miles, has 3,050,000 population; Kolhapur and dependencies, area 2,655 square miles, have 4,100,614; Khairpur, in Sind, area 6,109 square miles, has 1,215,715. In Madras, Travancore, area 6,730 square miles, has a population of 8,828,223; Cochin, area 1,362 square miles, has a population of 1,928,294. In the Central Provinces the principal state is Bastar, with an area of 13,002 square miles and a population of 281,020. Of the Bengal states, Kuch Behar, area 1,307 square miles, contains a population of 1,614,490. The state of Rampur, in the Northwest Provinces, on an area of 945 square miles has 2,882,177 inhabitants. In the Punjab, Patiala, with an area of 5,412 square miles, has a population of 6,829,292; Kapurthala, 528 square miles in extent, has about 2,000,000; Bahawalpur, area 1,500 square miles, has 1,600,000. The birth-rate in Bengal for 1900 was 38.08 per 1,000 and the death-rate 18.43. Of the Madras Provinces, Crewe and Oudh the birth-rate was 40.34 and the death-rate 31.13; in the Punjab the birth-rate was 41.1 and the death-rate 47.7; in the Central Provinces the birth-rate was 31.4 and the death-rate 27.82; in Lower Burma the birth-rate was 38.37 and the death-rate 27.51; in Assam the birth-rate was 34.98 and the death-rate 30.84; in Madras the birth-rate was 31.81 and the death-rate 28.34; in Bombay the birth-rate was 26.87 and the death-rate 70.07. The number of coolie emigrants from India in 1900 was 17,168. The population of the principal cities of India in 1901 was, according to the provisional census returns, as follows: Calcutta, 1,121,564, including suburbs; Bombay, 770,547; Madras, 509,397; Haidarabad, with suburbs, 448,291; Lucknow, 283,931; Ranchi, 232,326; Delhi, 258,385; Benares, 236,005; Cawnpur, 197,000; Agra, 188,300; Mandalay, 182,498; Allahabad, 175,748; Amritsar, 162,549; Bangalore, 152,947; Vardan, 140,990; and Bhopal, 137,847. The Brahminic Hindus, who were the most numerous element in the famine-stricken population, declined in numbers between 1891 and 1901 from 207,689,000 to 207,075,000. The diminution was in males alone, and it occurred in native states, while in British India, despite a falling off of 1,120,000 in Bombay and the Central Provinces, there was an increase of 4,013,000. The population of the native states, as of the census of 1901, was more than counterbalanced by a decrease of 4,013,000 in the native states, half of it in Rajputana. The Mohammedans in ten years increased in numbers from 67,321,100 to 62,458,000, or 9 per cent. The growth is attributed in part to the relative prosperity of the regions where Mohammedans reside and in part to conversions. In Bengal they increased twice as fast as Hindus. Buddhists increased from 6,888,000 to 9,184,000, or 33 per cent. Their increase in Burma was 3,927,000, or 150 per cent. The Jains, living in Bombay and Rajputana, were reduced from 1,417,000 to 1,334,000. The animistic or pagan tribes of the hill country in Bengal and Assam, the Central Provinces and central India, Madras, Baroda, and Burma, numbered 8,854,000, a reduction of 996,000 from the former census. The Christian population increased in this year by 12,000. The Parsees, from 89,900 to 94,200, the Jews from 17,194 to 18,228. The reformed Hindus of the Brahmo-Somaj number only 4,000, while the Orya Hindus, another new sect of Brahmins not a quarter of a century old, have grown to 67,000. Of the total population 70 per cent. are Hindus, 21 per cent. Mohammedans, 3 per cent. Buddhists, 3 per cent. animists, 3 per cent. Christians, etc. Finances.—The total revenue of British India in the year ending March 31, 1900, was 1,029,557,488 rupees, and the total expenditure was 981,938,121 rupees, a surplus of 47,619,367 rupees. The total revenue was 245,892,800 rupees in England. The revenue for 1901, according to the revised estimates, was 1,127,480,500 rupees, and the expenditure 1,119,726,000 rupees. The budget estimate of revenue was 1,082,878,000 rupees, of which 272,559,000 rupees were land revenue, 278,414,000 rupees railroad receipts, 89,085,000 rupees salt duties, 8,149,000 rupees from opium, 50,209,000 rupees stamp duties, 59,506,000 rupees excise duties, 40,839,000 rupees provincial rates, 47,821,000 rupees customs duties, 19,500,000 rupees assessed taxes, 15,917,000 rupees forest revenues, 4,521,000 rupees registration dues, 9,613,000 rupees duties on land revenue, 10,235,000 rupees interest, 33,074,000 rupees revenue from the post-office, telegraphs, and mint, 18,146,000 rupees receipts from the civil departments, 8,906,000 rupees miscellaneous receipts, 37,298,000 rupees receipts from irrigation works, 6,006,000 rupees receipts from other public works, and 11,847,000 rupees receipts from the military department. The budget estimate of expenditures for 1902 was 1,075,234,000 rupees, of which 2,740,000 rupees were charged to provincial balances, leaving expenditure of the Indian exchequer 1,072,514,500 rupees. Of the total expenditure the railways took 275,885,500 rupees; the army services, 257,030,500 rupees; civil salaries, etc., 171,880, rupees; and the 10 per cent. of collection, 97,922,000 rupees; miscellaneous civil charges, 61,987,000 rupees; irrigation, 36,082,000 rupees; other public works, 72,871,000 rupees; the post-
office, telegraphs, and mint, 33,477,000 rupees; interest, 31,490,500 rupees; refunds and compensation, 18,025,000 rupees; and the famine insurance fund, 12,050,000 rupees. In addition to this, 98,883 rupees were applied in 1901 to the redemption of the debentures of the Great Indian Peninsula Railroad, which was transferred to the Government on June 30, 1900.

The debt of British India on March 31, 1900, amounted to 3,066,692,854 rupees, of which 1,124,747,010 rupees were permanent debt in India, 1,794,696,015 rupees permanent debt in England, and 147,239,898 rupees unfunded debt. The total has increased in ten years from 2,184,200,690 rupees.

One of the main causes of famine in India has been supposed to be the land tax. The Government in 1902 promised to allow for improvements, to make no assessments on prospective values, to revise local taxation, to impose large enhancements only by degrees, to adjust collections to the variations of crops and the circumstances of the people, to reduce assessments in declining localities, and to amend the assessment laws. The Government was also considered necessary, and the land revenue was officially reported to be more lenient now than at any former period. The development of industrial resources is held by the Government to be the best safeguard against famine, and therefore it is intended to devote a part of the surplus to promote industry.

The capital outlay for 1903 is 29,309,990 rupees, consisting of 15,192,000 of direct expenditure on railroads and irrigation works, 20,797,000 of deposits and advances, 334,000 advanced to companies by the Imperial and provincial governments, and the difference between 21,857,000 paid on Council bills and 21,500,000, the amount drawn. The addition to the permanent debt for the year is 2,041,000, of which 2,000,000 was raised in India; increase of unfunded debt, 25,430,000; capital raised through companies for state railroads, 2,200,000; deposited by railroad companies, 2,851,000; imperial surplus, 2,586,000; remittances, 2,000,000; reduction of legal tender, 2,011,000; and of leave balances of 24,883,000 rupees in India and England on March 31, 1903. The expenditure for railroad construction is estimated at 7,334,000, and for irrigation, 7,197,000. Two-thirds of the surplus was devoted to the building of railroads, the rest to reimbursing provincial treasuries for their losses from famine, while the collections of arrears of land revenue from the famine-stricken districts, already suspended for the years of total drought, were written off as a permanent loss to the treasury. The grants to the provincial governments, to be spent largely upon education, amounted to 2,806,000, and remission of arrears of land revenue to 2,530,000 rupees.

Currency.—The money standard was the silver rupee from 1853 till 1893. When the price of silver bullion fell below 39. an ounce and the value of the rupee below 1. 3d. the Government on June 20, 1895, closed the mints to the free and unrestricted coinage of silver for the public. Gold coin and bullion was received at the mints in exchange for rupees at the ratio of 1. 4d. per rupee or 15 rupees for the English sovereign. On June 15, 1893, the stock of silver bullion in declared legal tender in India and the mints were opened for the free coinage of gold. The amount of silver and copper coined from 1833 down to May 1900, 23,558,421 rupees. This includes 29,404,821 British dollars coined since 1894 at Bombay and Calcutta for the Straits Settlements and Hong-Kong, of the value of 209,883,708 rupees. The coinage of silver by the Government, legal and private, reached 7,988,800 rupees until the last famine came. In the year ending March 31, 1897, the coinage of silver was 19,655,830 rupees, of which 13,922,999 rupees represent British dollars; in 1898 it was 58,157,750 rupees, including 48,300,828 rupees in the form of dollars; in 1899 it was 55,872,480 rupees, of which 48,888,833 rupees were in dollars; in 1900 it was 92,018,798 rupees, of which 92,018,798 rupees were in dollars; in 1901 it rose to 194,130,972 rupees, the heaviest coinage of any one year since the mints were established, the value of the British dollars included in this amount being 21,489,248 rupees.

The Army.—The established strength of the military forces as provided in the estimates for the year ending March 31, 1900, was 228,887 of all ranks, comprising 72,838 British and 165,574 native Indian troops. The British army in India consisted of 346 staff-officers, 4 cavalry and 31 infantry generals, 25 general officers unemployed, 500 officers and 13,189 men of the royal artillery, 211 officers and 5,355 men of the cavalry, 324 officers and 171 men of the royal engineers, 1,277 officers and 92,174 men in the infantry regiments, and 5 officers and 9,219 men in the Bengal cavalry and invalid establishment. The native army consisted of 4,010 artillery, 25,316 cavalry, 5,904 sappers and miners, and 122,019 infantry, including 61 European officers in the artillery, 448 in the cavalry, 64 in the sappers and miners, and 1,501 in the infantry. The number of European and Eurasian volunteers on May 1, 1901, was 30,850 enrolled, of whom 10,403 were employed in the Imperial Service Corps, consisting of picked contingents from the armies of the native chiefs trained by 19 British officers, numbered 18,451 in 1901, comprising 6,390 calvary, 295 artillery, and 9,754 infantry. In October, 1902, Lord Kitchener succeeded Gen. Sir A. Power Palmer as commander-in-chief. The Indian army has been reorganized with a quick-firing rifle, transport has been organized, the present system of frontier defense is regarded as vastly superior to the schemes that preceded it, the artillery has been reformed, and factories have been established to make provisions and materials of war. The reduction of the army to the extent of the troops sent to Great Britain for the South African War saved for the Indian Government 2£,180,000, of which £1,250,000 was applied to military reorganization and equipment. India sent 13,200 British officers and men to South Africa, with 9,000 natives, principally followers, and to China were sent 1,300 British officers and men, 20,000 native troops and 17,500 followers.

Commerce and Production.—Out of 732,285,223 acres surveyed in British and native territory reports were made of 545,069,496 acres in 1900, of which 65,843,924 acres were forest, 135,565,014 acres waste, 106,604,704 acres available land not cultivated, 57,137,701 acres fallow, and 105,151,005 acres bearing crops. The area under rice was 72,808,952 acres; under wheat, 16,104,779 acres; under other grains, 75,965,984 acres; under oil-seeds, 10,927,641 acres; under cotton, 3,875,941 acres; under sugar-cane, 2,853,299 acres; under indigo, 1,046,434 acres; under tobacco, 915,321 acres; under tea, 453,187 acres; under jute, 2,070,888 acres; under other fibrous grasses, 12,046 acres; under wool, 135,565 acres. Reckoning double land cropped twice in the year, the total area under crops was 203,885,581 acres, of which 33,096,031 acres were irrigated. The total area is 18,611,106 acres, of which 11,466,528 acres were ir
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irrigated by major works, which paid a revenue of 37,725,507 rupees, 7,001,574 rupees by minor works, realizing a revenue of 56,534,366 rupees. The irrigation works, for which a capital account is kept, paid 6,10 per cent. on their capital in 1899 and 1900. The value of the crops that they irrigated is estimated at 460,000,000 rupees.

There were 190 cotton-mills in 1901, with 4,932,603 spindles and 40,542 looms, employing on the average 150,039 persons, with 185,304,951 rupees of capital invested; 35 jute-mills, having 315,264 spindles and 15,242 looms, employing 110,482 persons, in which the capital investment was 54,050,000 rupees; 4 woolen-mills, with 22,986 spindles and 594 looms; and 8 paper-mills, employing 4,871 persons, having a capital of 7,022,000 rupees, and producing 45,600,000 pounds of paper in 1900, valued at 2,531,748 rupees. The quantity of beer brewed in 1900 was 5,041,968 gallons. The output of coal from 286 mines was 6,118,969 tons, valued at 20,145,222 rupees. The number of persons employed in the mines was 99,188. The imports of coal and coke in 1901 were only 127,318 tons, including pressed fuel.

The total value of imports by sea in the year ended March 31, 1901, was 1,715,314 rupees, an increase of 9.55 per cent. on the imports of the preceding year; total value of exports by sea, 2,199,306,103 rupees, an increase of 4.23 per cent. The value of imports comprised 686,945,896 rupees of merchandise and 245,767,018 rupees of treasure; the total value of exports comprised 1,077,634,157 rupees of merchandise and 142,273,944 rupees of treasure. The principal exports were dyes and tans, 5,940,105 rupees; of machinery and apparatus, 15,834,105 rupees; of rice, 9,049,785 rupees; in Madras the imports were 772,708,893 rupees; of coffee, 9,849,201 rupees; of tea, 6,555,180 rupees; of tea, 16,589,743 rupees; of coffee, 1,284,498 rupees; of spices, 5,415,153 rupees; of sugar, 1,709,504 rupees; of wheat, 10,796,089 rupees; of salt, 3,595,324 rupees; of provisions, 5,775,052 rupees. The imports of gold bullion and specie on Government and private account during the year ending March 31, 1901, amounted to 118,980,197 rupees, and exports to 110,558,846 rupees; exports of silver were 128,787,521 rupees in value, and 31,715,100 rupees. The values in rupees of merchandise imports from and exports to various countries during the year ending March 31, 1901, are given in the following table:

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
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</thead>
<tbody>
<tr>
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<td>513,725,507</td>
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<td>3,487,291</td>
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<tr>
<td>Germany</td>
<td>26,900,410</td>
<td>26,901,290</td>
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<tr>
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<td>United States</td>
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<td>France</td>
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<td>11,003,290</td>
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<tr>
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<td>34,220,294</td>
<td>34,220,294</td>
</tr>
<tr>
<td>Belgium-Hungary</td>
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<td>81,906,481</td>
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</tr>
<tr>
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<tr>
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<td>4,196,291</td>
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<tr>
<td>Russia</td>
<td>28,290,294</td>
<td>2,423,577</td>
</tr>
<tr>
<td>Japan</td>
<td>8,594,297</td>
<td>8,594,297</td>
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<tr>
<td>Australia</td>
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<tr>
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<tr>
<td>South America</td>
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<tr>
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<tr>
<td>Netherlands</td>
<td>4,908,351</td>
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</tr>
<tr>
<td>Spain</td>
<td>39,008</td>
<td>4,456,700</td>
</tr>
</tbody>
</table>

Of the total sea-borne commerce for 1901, exports and imports, Calcutta had 800,184,677 rupees; Bombay, 533,083,853 rupees; Madras, 139,082,718 rupees; Madras, 110,093,034 rupees; Karachi, 78,749,851 rupees; Tutticorin, 24,841,687 rupees. Of the merchandise 628,567,038 rupees of imports and 956,257,787 of exports passed through
the Suez Canal. The total value of the coasting-trade, imports and exports, was 835,159,562 rupees, exclusive of Government stores and treasure. The overland trade had a total value of 118,410,481 rupees, the increase being the main result of the foreign trade, which was more in value than in the preceding year. The cotton factories were busy again after a long period of inactivity. Jute manufactures showed continued progress. Oil-seeds were the leading export, amounting to 211,189,000, the trade having revived after several years of depression. The lineese exports were 50 per cent. greater in quantity than in 1901, although Argentine lineese competition was heavier. A heavy crop in the Punjab enabled India to export four times as much rapeseed as in the previous year. Earthnuts, after a series of bad crops, were exported in large quantities, and exports of cotton-seed increased from 223,000 to 2,036,000 hundredweight. The crops of gingersly, poppy, and castor were also abundant, but in 1902 the crops of oil-seeds were generally poor. Rice exports increased rapidly till 1902, but since then there has not been much surplus for export, and 70 per cent, of what is now coming to India. The wheat harvest in 1901 was poor except in Sind, which furnished the whole of the cotton-seed, and in 1902 the harvest again averaged low. The jute-crop was not heavy, and 14,763,500 tons were exported, half of it to England and the rest to the United States, France, and Germany. In 1902 the crop was poor, not enough to meet the requirements of the large foreign market, and the prices were much as the European mills. Jute and its manufactures taken together form the most important of India's exports. Gunny-bags, over 2,000,000,000 in number, were exported to America, Great Britain, China, the United States, Singapore, Chile, and Germany, and 419,000,000 yards of cloth, of which the United States took 271,000,000 yards. Exports of raw cotton amounted to 5,700,000 hundredweight, which went to Japan, Germany, Italy, and China. Cotton manufactures in Bombay recovered from a long depression, and exports of yarn rose from 118,000,000 pounds in 1901 to 271,000,000 pounds in 1902, of which 36 per cent went to the United States, and 19 per cent to Germany and France, and 15 per cent to India and the Levant. The raw skins exported went mainly to the United States, hides to Germany and other countries, leather and dressed skins to England. Poor seasons and the competition of the cheaper skins from western China reduce the exports of opium. The indigo-crop was poor, and the area in Bengal was reduced two-fifths on account of the competition of artificial indigo, but in Madras there was a larger crop. Shipments, having averaged 148,000 hundredweight, declined to 102,000 hundredweight in 1901 and less than 90,000 hundredweight in 1902. Exports of teak were 180,000,000 pounds, 10,000,000 hundredweight less than in 1901, with lower prices. Overproduction brought on a crisis which the planters try to overcome by reducing the output of common grades, improving qualities by finer plucking, and promoting the demand both in India and in foreign countries, where Ceylon tea makes more headway at present. India exports coal to Ceylon, Aden, and Siam, and only Indian coal is used now on the railways. Shellac goes to the United States in greater quantities than to any other country. Coffee, small in quantity, though good, goes to England and France, but the price declined. Tobacco is grown and exported in increasing quantities in the manufactured and the raw state. Exports of hemp increase. Pepper, spices, rice, and tea are exported, and Manganese ore is preferred to the Russian, and the foreign demand is growing. Exports of raw silk increased in 1902, and Japan took over half. Silk goods, wool, shawls, rugs, and teas show a
India.

The Government operations in the precious metals were small compared with the abundance of minerals of 1901, but private imports of silver increased.

Navigation.—The number of vessels in the foreign trade entered at the ports of British India during the year ending March 31, 1901, was 4,252 of 4,223,242 tons, of which 2,000, of 3,333,480 tons, were British; 622, of 92,236 tons, British Indian; 969, of 59,586 tons, native; and 641, of 740,140 tons, foreign. The total number cleared was 4,670, of 4,044,188 tons, of which 1,935, of 1,97,027 tons, were British; 587, of 88,981 tons, British Indian; 938, of 58,065 tons, native; and 590, of 469,465 tons, foreign. The number arriving by way of the Suez Canal was 531, of 1,834,903 tons; and cleared for ports beyond the canal, 805, of 2,010,757 tons. In the coasting-trade, 99,033 vessels, of 10,404,105 tons, were entered and 91,004, of 10,421,280 tons, cleared with cargoes. There were 85 vessels, of 4,540 tons, built in India in 1901, and the number first registered was 122, of 12,570 tons. Of the vessels built at Indian ports 40 were built in Bombay, 16 in Sind, and 16 in Madras.

Railroads, Posts, and Telegraphs.—The total length of railroads in operation in the beginning of 1901 was 16,707 miles, of which 8,469 miles were owned and operated by the Government, 12,333 miles were state lines operated by companies, 1,305 miles were guaranteed lines, 2,507 miles were assisted lines, 1,456 miles were lines owned by native states worked by companies, 208 miles were lines belonging to native states worked by the Indian Government, 1,157 miles were lines operated by companies but expected to be taken over by the Government, 74 miles were line of government, and 74 miles were foreign lines. The capital of the Government railroads operated by the state was 891,151,975 rupees; of Government railroads leased to companies, 1,295,506,127 rupees; of guaranteed lines, 670,558,145 rupees; of assisted lines, 167,333,501 rupees; of lines belonging to native states, 160,904,092 rupees; of foreign lines, 17,627,320 rupees; total, 3,303,483,390 rupees for existing lines, besides which 8,913,305 rupees were subscribed for new lines and 15,114,12 rupees represent the coal mines and unclassified expenditure, including surplus of 3,197,510,837 rupees. The receipts of all the railroads in 1900 amounted to 315,967,327 rupees; operating expenses, 150,993,575 rupees, being 47.79 cent. of the total receipts of 316,906,812 rupees, being 4.99 cent. on the capital; number of passengers carried, 174,825,483, paying 102,644,273 rupees; tons of freight, 43,015,286, paying 204,604,792 rupees. The guaranteed lines have been taken over by the Government, except the Madras Railroad, which cost £11,007,973, and the Bombay, Baroda, and Central Indian Railroad, which cost £10,397,910, and in 1900 and 1901 will be transferred. In 1870 the Government gave up its claims for the repayment of interest advanced under the guarantees and the companies their right to more than half the surplus profits. British investors have over £200,000,000 in Indian railroads. There were no profits for the Government until it took the guaranteed lines. In 1900 the railroads of India for the first time brought a profit to the state, a small surplus of £38,000, which grew to £737,000 in 1901. There were 561 miles built in 1901, making the total mileage 23,373 miles. Five new miles was the rate it was in 1871. The average net profits on all Indian railroads was 5.26 per cent. in 1901. Many of the lines were built for famine protection and for strategic purposes, and were not expected to be remunerative, but some purely commercial lines earned as much as 9.50 per cent. The Bengal and Assam Railroad, constructed principally to benefit the tea districts in which much English capital is invested, was extended with difficulty over the hills of the Brahmaputra valley as a strategic railroad for the defense of the northeastern frontier, and the original estimate of £4,180,000 and the time of construction were fulfilled. The military line from Jamrud to Peshawar and from Dargai to Nowshera were completed in 1901. The latter line has developed considerable trade between the frontier province and the recently hostile countries from which the occupying Indian garrisons were withdrawn, though trade with Kabul continues to decline, owing to restrictions imposed by the late Ameer. The line from Mandelay northward, which was originally intended to penetrate the Chinese province of Yunnan, will stop at Lashio, 50 miles short of the Salween river, but is expected to be of advantage in developing the northern Shan states. A line from Pegu to Moulmein has been surveyed and a line from Quetta to Nushki will be built, with a prospect of continuing it into the Persian province of Seistan. The Bengal and Nagpur Railroad taps the Jhurrir coal-fields and affords a new outlet to Calcutta and Bombay. While English coal was becoming scarce in the country, the coal trade increased 15 times in 1900 in Indian coal. The general traffic has grown steadily since 1893. In 1901 there were 195,000,000 passengers carried, 10 per cent. more than in 1900. The increase in passengers was 356,000, while the decrease in railway rates was as much as 30 per cent. in 1902. The general conclusion is that the reduced rates by the railway system had a beneficial effect on the general prosperity of the country. The general conclusion is that the reduced rates by the railway system had a beneficial effect on the general prosperity of the country. The post-offices, in 1900, consisted of 321,664,746 letters, newspapers, and other mail-matter; receipts, 19,962,722 rupees; expenses, 17,733,705 rupees. The Government telegraph-lines on April 1, 1900, had a total length of 8,200 miles, with 170,768 miles of wire. The number of messages in the financial year was 6,237,301; receipts, 12,480,684 rupees; expenses, 10,690,819 rupees.

Financial and Economic Conditions.—Indians assert that there are two India—English India and the India of the natives. The native and unofficial members of the Viceroy's Council, whether they think it is the right of the native to assess his own assessment of land revenue or to other causes, plead for a reduction of taxes, especially since the rupee has been made dearer by the currency laws, and consider that the cost of the army and defenses, which are to a great extent intended for the protection of the British Empire against enemies of Great Britain, ought to be shared by Great Britain or the army reduced, especially the British troops in India. The Government denied that the people of India were overtaxed, arguing that when revenues were elastic the taxes could not be excessive. That the people were exceedingly poor was admitted, and that the cultivators were running deeper in debt. Lord Curzon places the average annual income at 20 rupees a head. The average expenses of a farmer's family are 95 rupees a year. It is estimated that 40,000,000 of the people of India live their whole lives in a half-starved condition and 50,000,000 more subsist solely on the coarsest native bread and vegetables. The estimated total indebtedness of the farming population is £320,000,000, averaging £1 6s. a head. The famine commissioners found that in Bombay one-fourth of the a profit, while the cultivation of their land were mere surfs of the money-lenders, and that not one in five was free from

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exists an assessment all round of one-fifth of the gross produce would be severer than the present assessments, which are lowest in Madras and Burms, not more than a tenth of the gross produce in the Central Provinces, less than a twelfth in the Punjab and the Deccan, and in Bombay, Assam, and all of India tend to diminish. The policy of settlements for longer terms is being extended. Where land is fully cultivated, rents are fair, and production is stable a readjustment is made only once in a generation; where rents are low, where there is much waste land and a fluctuating cultivation, or where the construction of roads, railroads, or canals, an increasing population, or rising prices cause resources to develop shorter settlements are necessary, but in order to leave more money to the landholder the Government has made the concession of taking the actual yield at the time of assessment, not the prospective yield, as the basis. Until the next revision the landowner enjoys all benefits arising from his improvements or the unearned increment accruing from outside circumstances. In Bombay and Madras special rules exempt improvements made by the enterprise of the cultivators from all future assessments, and in government grants which will afford sufficient exemption of private outlay to stimulate the investment of capital in improvements. While some contend that only irrigation works or a rise in the price of produce can give a just right to increase assessments in ryotwari tracts, the Government claims the ancient right to share in the produce, and wherever there is an increase of the produce or its value the state requires its share, though the right has been waived in some provinces and limited in others as regards increments due to the expenditure of labor or capital on the land. The Famine Commission found the incidence of land revenue moderate in good years except in Bombay. Among secondary causes of famine are enumerated subdivision of holdings, rack-renting by landlords and middlemen, the decline of indigenous industries, the usury of money-lenders, expenditure on litigation, extravagance in festivities, and all kinds of gambling. The Famine fund, although diverted in war scares, has been repaid in famine relief amounting to £12,730,000, protective works costing £9,000,000, and reductio of debt to the farmers in 1866 to £1,000,000 in Orissa in 1866, and all previous ones, but in the last two famines there was want of money to buy the surplus crops of the granary districts that the railroads brought into the stricken region. Careful and intelligent cultivation and incessant hard labor of men, women, and children do not prevent the peasantry from growing poorer and falling hopelessly in debt to the middle and higher classes, which are becoming richer. The argument in favor of a permanent settlement of the land throughout India, such as was made with the zemindars of Bengal, the Government meets by saying that the unearned increment, which the Government appropriates to itself by periodically raising the land taxes, would not be retained by the cultivators, but any extension of permanent settlements would multiply landlords to the detriment of the cultivators. Where the zemindari system has been established the Government gradually limits its liability to the extent of one-tenth of the lands, and has progressively reduced them in the Northwest Provinces, the Punjab, the Central Provinces, and Orissa, while laws have been enacted and are in process of enactment against the landlords; where ryotwari, or peasant proprietary tenure under temporary settlements, debt. The same conditions prevail throughout India. The investigations into land revenue showed that where the people were most in debt, and from that the conclusion was drawn that the land tax was nowhere excessive. The system of exacting prompt payments in years of the highest land prices and in years of plenty was condemned, although it has been the British policy in India from the beginning, and the Government decided not only to remit arrears of land revenue altogether or postpone collection in the districts lately affected by famine, but for the future to introduce elasticity into the system of collection where it is required, as was the practice of the rulers who preceded the British in India and is generally customary with Oriental rulers. The Government has also undertaken to combat the evil of usury, which is transferring the land from the possession of the occupiers to that of a small class of money-lenders. In the Punjab and Bombay laws have been enacted giving courts power to review contracts of debt and similar legislation is proposed for other parts of India. Agricultural banks are to be introduced experimentally. More restrictions are to be placed on the alienation of property. The Government has contended that controversy and disputes of cultivators in the distressed districts. The drought of 1899 was considered by the Famine Commission, of which Sir Anthony McDonnell was president, to have been the severest in India had experienced. The crop losses in that season were over £30,000,000 in British India and £29,000,000 in the native states. The direct expenditure on the famine in 1898-1901, was £26,000,000; agricultural advances and loans, £1,200,000; loss of revenue and indirect expenditure, £2,700,000, deducting £700,000 of additional receipts from railroads and canals. The excess of deaths due to famine was estimated for British India at 1,250,000. In the native states affected by famine population declined from 42,000,000 in 1891 to 36,000,000 in 1901, while in states not visited by famine, population increased over 12 per cent. The Indian Government loaned £2,335,000 to native states and guaranteed loans amounting to £2,000,000 to British India in their operations of famine relief. Owing to the system of productive railroads the famines of 1897 and 1899 did not entail want of food in any district, as was the case in Madras in 1896. The famine in Orissa in 1896, and all previous ones, but in the last two famines there was want of money to buy the surplus crops of the granary districts that the railroads brought into the stricken region. Careful and intelligent cultivation and incessant hard labor of men, women, and children do not prevent the peasantry from growing poorer and falling hopelessly in debt to the middle and higher classes, which are becoming richer. 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the British Empire in other countries has always seemed to Indians a rank injustice and in some cases these charges have been contested by the Indian Government. After an investigation by a royal commission on Indian expenditure and a long discussion between the Indian Government and the British treasury officials, an arrangement was come to recognizing that India has sole interest in punitive expeditions on her borders, a direct and substantial interest in questions affecting Afghanistan and adjacent parts of central Asia, in questions affecting Siam, in questions affecting Persia and the coasts and islands of Arabia and the Persian Gulf, and in the security of the Suez Canal and the maintenance of established government in Egypt as affecting that security, and the interest in keeping open the Suez Canal might extend to the coasts of the Red Sea, but not to the Soudan or the upper Nile. In East Africa there may be a modicum of interest, and there are questions affecting China and the Malay peninsula. In Japan or islands east and south of China, in the African coast south of Zanzibar or any part of Africa west of the Cape of Good Hope, or in Europe as a rule India has no direct or substantial interest in the employment of forces, and if cases arise in which the two governments do not cooperate all be made by India until the sanction of Parliament is obtained. When disputes arise as to the interpretation of the agreement, or minor points of difference, the Lord Chief Justice, and Lord Emperor of India, for the next three years be the arbitrator. By recommendation of the commission an annual charge of £290,000 has been transferred from the Indian to the imperial budget.

The Indian revenue prospered even in the famine year ending March 31, 1901, when instead of the expected deficit of £826,000, there was a surplus of £1,570,000, not counting £3,100,000 of profits from the enormous coinage of rupees. The budget for 1902 figured out a surplus of £690,000, but owing to the withdrawal of troops for South Africa and China the actual surplus reached £4,900,000. The money saved was spent in rearming the Indian army. For 1903 it was decided to remit taxes and make grants for the relief of provinces that had suffered from drought and for the promotion of industries to the total extent of £1,500,000, leaving still an estimated surplus of £837,000, which was increased in the revised estimate to £2,700,000. Notwithstanding the distress famine distress, the accounts for the three years show a surplus of £8,300,000, and during the same period the Government has spent £25,000,000 on railroads and £25,000,000 on irrigation. Moreover, a special gold fund was established, including the investment of £3,600,000 in British consols, for the purpose of giving stability to the exchange. The Government looks for an increase in income under the main heads of revenue except opium, but makes no remission of taxes for 1903 except arrears of the land tax where there were no crops on account of the drought. The customs revenue increased with the steady growth of external trade, which advanced from £130,000,000 in 1891 to £213,000,000 in 1901. The customs duties are levied mainly on articles consumed by the poorer classes, whose friends ask not merely for a reduction of the salt duty, but remissions on other necessaries, and especially the abolition of the excise duty on domestic corn. This, it is reckoned the increase in the tax was lower. The civil and military estimates and general administration increased only £25,000,000, or from £32,000,000 to £35,500,000, in ten years, and when £3,200,000 saved, in the debt charge is reckoned the increase in the taxpayer was only £200,000. Increased expenditure is contemplated in connection with education and police and allotments to provincial cornets, and the building of roads and tax offices on the army, instead of being diminished, will be increased. The British garrison is to be augmented. The British soldiers will receive 2d. more a day. As to the recently enlisted men the Indian Government demurred, and open and £235,000,000 invested. In the meantime the state has acquired the guaranteed railroads, worth £80,000,000, giving annuities running fifty years, and these annuities are paid out of ordinary revenue. The capital of the productive debt has been largely increased, but whereas the investments entailed a loss of £1,550,000 in 1891, they returned a profit of £200,000 in 1901, while in the same period the service of the non-productive debt diminished from £2,460,000 to £1,487,000, so that the annual debt charge has been reduced £3,225,000 in ten years. The revenue from opium fell in ten years from £8,000,000 to £4,000,000, and in 1902 to £2,600,000. The area of poppy culture has been increased, and the Indian Government is accused of trying by increasing production to make up for the lesser profit due to Chinese competition. After the Indian Government had in 1889 reduced the area under poppy cultivation on account of overproduction, the British Government in 1891 gave a qualified pledge to gradually reduce opium production, and in 1893 Parliament passed a resolution in that sense and authorized the appointment of a commission to study the question. The commission adopted the view of the Indian Government that the large revenue then obtained from opium could not be replaced by any policy of prohibition or any action tending to the destruction, unasked by China, of the export trade in opium. The annual product of Bengal opium, owing to bad years and the neglect of the area, averaged only 40,500 chests between 1890 and 1898, but in 1899, a good year with increased area, gave 51,700 chests, and in 1900 the manufactured product was 54,400 chests, equal to the average for the ten years preceding the report of the Opium Commission in 1893. The Government has reduced the export to China, and this with increased demand elsewhere has kept up the price, which averaged 1,361 rupees a chest in 1901, compared with the 1,097 rupees for 1891, when 57,000 chests were sold. The Government now restricts cultivation to an area sufficient to produce for export not more than an average of 48,000 chests a year. The salt revenue has been disappointing because improved facilities for transportation have not been sufficient to make any deduction is that the tax keeps consumption down, and the Government contemplates making a reduction in the tax if financial conditions continue to be favorable, not for the reasons advanced by the Indians, that it is an unjust tax on an article of prime necessity for the health and comfort of the people, but with the object of making the consumption of salt general, so that the tax may be reimposed when fiscal needs require it. The tax of 2 rupees per maund of 82 pounds imposed in 1882 was increased in 1888 to 21 rupees, but the decrease was described as temporary. The proceeds of the tax in ten years increased only from £5,500,000 to £5,800,000. The consumption per capita remained stationary, though it increased when the tax was lower. 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the question has been referred to arbitration. The army expenditure had increased from an average of £130,000,000 before 1892 to an average of £153,000,000 a year. The expense of entertaining Indian potentates who visited England as public guests in the years of the East India Company and later was always defrayed out of the Indian revenue. This was changed when the Indian princes went to attend the coronation in 1892, but the English Government restricted the expenditure to £100,000. Denying this entirely inadequate, the Indian Government offered to pay the excess. The British treasury later assumed the entire cost, in the dispute and much public criticism regarding the size of the bill, although this was the first coronation at which the sovereign of the British Islands was recognized as Lord Paramount of India, and eventually the cost was shared by both governments. For the coronation durbar to be held at Delhi on Jan. 1, 1903, the Indian Government appropriated £250,000.

The total revenue for 1902 amounted to £441,000,000 and expenditure to £399,000,000. For 1903 revenue was estimated at £425,500,000 and expenditure at £431,500,000. The sum allowed for receipts to cover losses on works and must be supplied by the extraordinary revenue collected during the year. This was in the amount of £299,000,000 in the revised estimate for 1902 over receipts in 1901. Customs revenue showed an increase of £164,000; stamps, £147,000; the mint, £315,000; railroads, £1,750,000. In the estimates for 1903 the land revenue, counting remission of arrears, was reckoned at £130,000,000 less than in 1902, the mint receipts £248,000 less, as no rupees were to be coined; customs revenue, at £232,000 less, as a continuance of abnormal importation was not expected; railroad receipts, at £299,000 less, the extraordinary traffic being expected to subside. With the return of the troops the army expenses were increased £1,535,000, and there were increases for civil departments, including education and police, and for irrigation, so that with a decrease in provincial balances of £2,585,000, instead of an increase of £1,401,000 in 1890, a decrease of £782,000 in 1892, which was £4,073,000 in 1902, fell to £382,000. The opium revenue showed an increase of £311,000 in 1902, and fell off again £200,000 in the estimate for 1903, owing to lower prices; the excise revenue, after increasing £1,110,000 in 1902, was taken at the same figure for 1903. The Indian Government is criticized for licensing the retail traffic in hemp and Indian hemp, and for introducing liquor of a quality so bad that it is not allowed to be sold to soldiers, which is made in Government distilleries and purveyed in licensed shops. The Government promised to investigate the conditions of the traffic in Assam after the tea-planters had complained of the demoralizing influence of the liquor shops. The labor question is always a pressing one in Assam. Only 3 per cent. of the people living there are laborers, and consequently the British planters have to depend on coolies brought from other provinces. The Government determined labor contractors and places those who are unlicensed under very severe restrictions. Native Indians accuse the planters of abusing their laborers in spite of the Assam labor act of 1892, for their protection, which fixed a minimum rate of wages and the estimated surplus, which was £4,073,000 in 1902, fell to £382,000. The opium revenue showed an increase of £311,000 in 1902, and fell off again £200,000 in the estimate for 1903, owing to lower prices; the excise revenue, after increasing £1,110,000 in 1902, was taken at the same figure for 1903. 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While the military policy of the Indian Government has undergone no change and military charges continue to increase, while no attempts are made to reform the fiscal system or to introduce representative government, Lord Curzon, who has succeeded better than any of his predecessors in winning the confidence of both Anglo-Indians and natives, has adopted a safer frontier policy and has instituted inquiries having for their object reforms in the administration and important projects for the economic progress of the people. Commissions have investigated famine relief and prevention, the breeding of horses for farm and draft purposes, railroad building and management, irrigation, improvements in the general system of education and the universities, and the starting of industrial schools and technical colleges, the police, military decentralization, and the scheme of agricultural banks.

Frontier Disturbances.—In the new North-west Frontier Province the policy of blockade has been adopted against border tribes that give trouble instead of that of punitive expeditions. Tribal allowances are paid for keeping open the passes, maintaining order, and punishing crime. The tribes are independent, and any form of government or whatever ruler any particular tribe chooses is guaranteed. The Government is willing to acknowledge and deal with. Tribal levies receive pay and arms as militia employed to defend the Indian frontier against external attack. Where any tribe commits depredations or breaks the peace its allowances are withdrawn and all trade and intercourse with it are cut off until it makes peace. A blockade against the Mahsuds and Waziris was a failure due to various offenses, and was held collectively, by the plan of making the head men responsible for order having been abandoned, was conducted by Col. C. C. Egerton from Dec. 1, 1900, till Nov. 1, 1901, without producing the desired results. A series of raids, with 1,000 to 2,000 men, who seized sheep and cattle and destroyed crops and villages, in four months brought the tribe to terms of peace, with a prospect that they would remain peaceful in order to earn the allowances that the Government promised them. The casualties of the battle were 31 killed and 90 wounded. The garrisons holding Kuram pass and the Samana range on the frontier of Kohat were withdrawn in April and their places taken by subsidized tribal garrisons. The road to Makran, which was held by the Afridis, was completed through Kohat. The regulars were concentrated at Nowshera, Kohat, Bannu, Deri Ismail, and other posts connected with the base by railroad. The Kabul Khel Waziris of Yaglanistan, whose country is on the Afghan border between the Tochi and Kuram valleys and between the British posts of Bannu and Thal, carried on predatory raids and blood feuds until it became necessary to chastise them. The guilty persons, when a demand was made for their punishment or surrender, invariably escaped over the frontier into Khost, and however willing the Afghan officials at Kabul might be to give them up, it was useless to demand of the Amer's Pathan soldiers on the spot that they should betray their kinsmen. The officer who had conducted the campaign against the Mahsuds, now Major-General Egerton, on Nov. 17 led out a force of 3,500 men with mountain guns, divided into four columns. Col. Tonk's, however, did not meet the enemy, and the Government of which replied that she could not do less than accept the ideas of the proposed conference as expressed by President McKinley, but, referring to the former conference, and the program naming the subjects proposed for dis-
cussion, a project on arbitration had been presented which was in direct contradiction with it, and the proposal to have the Chilean delegation to abstain absolutely from taking part in the deliberations at that time. Consequently, before accepting the invitation, Chile insisted upon a clearly defined program which could not lend itself to the stirring up of offensive questions, or take up pending or past questions in which any of the states were interested. A tentative program being formed by the Executive Committee of the International Union and submitted to the countries, Chile replied that she would assist with pleasure, provided that, in conformity with this program, the proposed conference would not take upon itself the adoption of resolutions of a retroactive character relating to actual or past questions concerning any of the republics invited. This reply was considered at an executive meeting, and resolutions were adopted informing Chile that the tentative program in reference to arbitration was not prospective but in no wise retrospective, for the differences that may arise among the American republics at a date posterior to the date of the exchange of the treaty of arbitration that the conference contemplated, and saying that the press is an institution that forms a part of the political organism, in the same manner as the jury and other free institutions which have been adopted in the American republics, and that the admission of the press representatives would be a stimulus to the delegates, who more than once would receive useful advice from that very press. Señor Matte, of Chile, then moved that the press representatives be admitted in such number and in accordance with such regulations as the president should determine, which was precisely what had been done in Argentina, whereupon Señor Alzamora rose and in a dramatic manner declared that "principles were everything, and persons nothing;" that once they had arrived at a certain conclusion, it made no difference whether it came from one delegation or another. His original motion was lost, while the motion of the Chilean delegate was carried, the United States, Mexico, and Hayti being the only votes cast in the negative. The delegations of the Argentine Republic, Venezuela, Ecuador, and Paraguay explained that they gave their votes in the affirmative because they considered the Peruvian and Chilean propositions equal.

After the election of officers, appointment of the committees, and adoption of rules and regulations, a special train was provided for the excursionists, and they were invited to the sessions to accept the invitations extended to them by the states of Puebla and Vera Cruz, to visit them for the purpose of forming an idea of their advance in industrial pursuits, arts, and sciences during Mexico's recent years of peace. A special train was provided for the excursionists, and they were invited to the sessions to accept the invitations extended to them by the states of Puebla and Vera Cruz, to visit them for the purpose of forming an idea of their advance in industrial pursuits, arts, and sciences during Mexico's recent years of peace. A special train was provided for the excursionists, and they were invited to the sessions to accept the invitations extended to them by the states of Puebla and Vera Cruz, to visit them for the purpose of forming an idea of their advance in industrial pursuits, arts, and sciences during Mexico's recent years of peace. A special train was provided for the excursionists, and they were invited to the sessions to accept the invitations extended to them by the states of Puebla and Vera Cruz, to visit them for the purpose of forming an idea of their advance in industrial pursuits, arts, and sciences during Mexico's recent years of peace."
arbitration was the main question to be treated by the conference; and that, in his opinion, it could not be said that any time had been wasted in listening to the Paraguayan's interesting speech. As it was evident that the South American opposition to Chile did not intend to let the matter be passed over, Señor Walker-Martínez, for Chile, made a few remarks which brought forth at once requests to be heard by delegates of Chile, the Argentine Republic, and Paraguay, whereupon the president announced that the hour fixed for adjournment had elapsed, and the session was adjourned. This day's proceedings promised to disturb the peace and harmony of the deliberations, if not to result in the withdrawal of certain of the delegates; but in the interval between the adjournment and the following session other delegates used their influence upon those who were desirous of continuing the discussion, and at the following meeting Señor Baz, on taking the floor, said he understood that both the chairman and the delegates desired the incident closed, and therefore he renounced his right to the floor, and regretted that any remarks by him should have given rise to any unpleasantness; and thus the incident was expunged by members who had asked the floor withdrawing their requests.

A gloom was cast over the conference by the sudden death of the first vice-president, one of its most esteemed members, the Brazilian delegate, Señor José Higinio Duarte Pereira. The Hall of Sessions the morning after his death was draped in mourning colors in the countries of Venezuela and Colombia. Although this reply was received by President Raigosa during the adjournment of the conference, it was so carefully guarded by him that no word or hint of it was given out till the reassembling of the conference, when it was read in secret session, with the result that it fell upon the South American combination against Chile like a shower of cold water, while Chile regarded it as a triumph for her.

The strained feeling between the other South American countries and Chile culminated in a letter, in a letter, in a letter, in a letter, in Paraguay, setting forth the opinions of his delegation in regard to obligatory arbitration, the most striking part of which was the lamentation of the term with a little while admitting that there were wars called to diffuse civilization and to assure the reign of liberty and independence of a people, it was declared that these wars were the result of the object of extending their frontiers or merely because they feel themselves strong and wish to put down their weaker neighbors. This declaration fell as a shot aimed directly at Chile; but when the secretary treated it as a digression from the order of the day by announcing that the discussion of the report of the Committee on International Bank and Monetary Exchanges was before the session, the Chilean delegate, Señor Matte, declared that he saw with pleasure that practical discussions were to begin, leaving aside platonic ones that were calculated to sow discord within the conference; that inasmuch as the delegation of Chile had come with the intention of giving preference to questions that were calculated to unite and not divide the members of the assembly, it could only applaud the proposed resolutions offered by the Committee on Banking; and he urged that the congress should keep aloof from matters not pertinent to the discussion of purely practical questions with effective results. To this Señor Bermejo, of the Argentine Republic, replied that, in his opinion, the
therefore, opportunity for the delegates of the United States to assume part of the leadership in the conference, either in its official organization or in its discussions, a position which naturally belongs to Mexico, the inviting nation and host of the occasion. It was desirable, he said, that the plans and propositions of the Latin-American states should be solicited, received with consideration, and, if possible, brought to fruition; and great care should be taken not to wound the sensibilities of any of the republics or take sides upon issues between them. He warned the delegation to proceed with great caution with respect to political differences subsisting between the states, the general principle being to enter as little as possible into these questions, at the same time it being useful to impress upon all the deep interest which the Government of the United States has in the peace and tranquillity of all the American states and their territorial integrity.

The sessions dragged on through the month of December, during which the nervous strain caused by the important question of arbitration was apparent. Several times it appeared to be the rock upon which the conference was to be wrecked. When the Mexican delegation had its first interview with the adverse party, he seemed to have no other purpose than to attack its representatives, for which reason it was not permitted to address the congress. It was then and there decided, under the circumstances, not to give up the project without a struggle. The next session, which was held in the presence of the representatives of the United States, was dedicated to the discussion of the various questions which were to form the basis of the treaty. It was decided that the various propositions should be submitted to a committee, which should then report to the whole conference. The committee was accordingly appointed, and the various propositions were discussed in detail. The conference then adjourned, and the deliberations were continued on the following day.

The conference was finally brought to a successful conclusion, and the treaty was signed by the representatives of the United States and Mexico. The treaty was ratified by both nations, and it was considered a great step forward in the cause of international peace and understanding. It was a landmark in the history of Latin-American relations, and it was hailed with universal approval.
INTERNATIONAL CONFERENCE OF AMERICAN STATES.

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project of adherence to the convention of The Hague, signed by 15 delegations, and submits it to the consideration of the conference, in order that as soon as it may be approved it be transmitted by the secretary to the Department of Foreign Relations of Mexico." Mr. Carbo, for Ecuador, entertained the conference to accept this proposition. The discussion being continued without any apparent hope of reaching an end, the president said that, in view of the constant censures made by Mr. Walker-Martinez on the rulings of the chairman, he was obliged to break the silence which his official capacity as president imposed upon him not only to determine the precise matter under debate, but also to appeal to the delegation of Chile, on whose answer would depend the ruling that the chairman would make and the course that would be given to the discussion. He said the only thing under debate was the previous ruling, and concluded by asking the delegation of Chile to be good enough to say if it withdrew its opposition to the ruling. The question was referred to the discussion of the rule. The discussion of the ruling was continued. Two days were taken up in the stormy discussion without the question of the ruling being brought to a vote, whereupon the solution was handled by Mr. Buchanan, of the United States, who said that the minutes of the conference for the two days past showed, in the remarks officially made by each of the members and by the delegate from Ecuador, their entire and hearty concurrence in the principles of The Hague convention, and their cordial and unqualified acceptance thereof. The fact that two delegates were absent on record, and to the end that these expressions of adherence on the part of the two delegations might have the proper, courteous, and consistent weight and voice given to the similar expressions made in the protocol on the part of the other delegations, he requested the president, in the name of those delegations, with the consent of those of Chile and Ecuador, to transmit with said protocol the minutes of the two past days referred to, in order that the protocol and said minutes should be communicated to the Mexican Minister of Foreign Relations, and that the latter communicate to the respective governments as an expression of the general adherence to the conventions of The Hague. Chile and Ecuador announced that they accepted this proposition because it fulfilled the desires expressed by them in the course of the debate. This part of the question on arbitration being closed, the secretary read a note addressed to the president by the delegations of the Argentine Republic, Bolivia, the Dominican Republic, Guatemala, Salvador, Mexico, Paraguay, Peru, Uruguay, and Venezuela, in which they announced that they had concluded a treaty of compulsory arbitration besides the one of adherence to the conventions of The Hague, and that they sent the said treaty to the conference, in order that it should be transmitted to the Department of Foreign Relations of Mexico to be perfected. The president ruled that this treaty be transmitted to the Department of Foreign Affairs for the purpose stated, and the all-important question of arbitration was closed, after which the work of the conference was speedily brought to an end. On the afternoon of Thursday, Jan. 30, after concluding business being disposed of, a vote of thanks was extended to the secretaries of the various delegations, as also to the press representatives; farewell were said, and complimentary remarks and a general feeling of good-bye prevailed. Closing remarks were read by the president, after which it was announced that there would be a closing session on the following afternoon to which the friends and families of the conference, in order that it was not invited. These closing exercises took place after a sumptuous banquet given at Chapultepec by the Peruvian delegation. A farewell speech was read by Señor Mariscal, Mexico's Minister of Foreign Relations, after which the delegations, their secretaries, and the press representatives and their families were escorted to the other end of the palace, where they were congratulated on their good work by President Diaz, who took leave of them all, shaking hands with them as they passed out.

The work of the conference is represented by the following protocol, treaties, conventions, resolutions, and recommendations:

Protocol of adhesion by the American republics to the convention for the pacific settlement of international disputes signed at The Hague July 29, 1899; treaty of compulsory arbitration signed by 10 delegations; treaty for arbitration of pecuniary claims; resolution favoring construction of the Pan-American Railway; resolution providing for an international customs congress; resolutions for consideration by the customs congress of means to facilitate American intercourse; resolution on quarantine and international sanitation; resolution providing for reorganization of the International Bureau of the American Republics; resolution providing for collection and publication of more complete information regarding the sources of production and statistics of the American republics; resolution providing for an international and American archaeological commission; resolution approving the construction of an interoceanic canal by the Government of the United States; recommendation for establishment of an international American bank; resolutions of greeting to the future Republic of Cuba; recommendation in favor of the Philadelphia Commercial Museum; resolution approving the Louisiana Purchase Exposition; resolution congratulating the officials of the Pan-American Exposition and the citizens of Buffalo; resolution communicating to the American republics the invitation of the International Association of Olympic Games to participate in the games to take place in Chur, Switzerland in 1904; resolution congratulating Gen. Rafael Reyes, of Colombia, for his work in exploring the river systems of South America, and commending his work to the several governments; resolution congratulating Mr. Santos Dumont, the Brazilian aeronaut; resolution expressing esteem for Mr. Carlos Calvo, the Argentinian writer on international law; resolution thanking the officers of the conference; resolution thanking the President of Mexico and other officials for their hospitality to the conference; treaty for extradition of criminals and for protection against anarchists; convention for practice of the learned professions; convention for regulation of codes of public and private international law; convention on literary and artistic copyrights; convention for exchange of documents and government publications; treaty on patents and trade-marks; convention on the rights of aliens; resolution providing for future international American exhibitions; a convention signed by the delegations of the Argentine Republic, Bolivia, Colombia, Ecuador, Paraguay, and Uruguay for a geographical congress at Rio de Janeiro.

It is believed that the results of the conference will be of great and lasting benefit to the nations.
participating in its deliberations. That the rela-
tion of the Latin-American states to the publics have been improved as a result, can not be doubted, as is clearly demonstrated by the change of sentiment on the part of the Latin-American countries and their representatives since the convening of the first conference twelve years ago. The countries then looked upon the project of an international conference, coming from the United States, with distrust and suspicion, believing that it was a scheme of the United States to extend its expansion over those countries; but the delegates returned to their homes fully satisfied that the United States was inspired only by a desire for their safety and well-being. At the second conference, instead of the United States being looked upon with distrust, just the reverse happened, the tendency of all the countries being to regard our country as the big brother who should take the lead in their various projects and deliberations, and guide them with a benevolent and protecting hand. The intimate association for nearly four months of representative men from every American republic tended toward this result, and the careful way in which the United States stood by, meddling with, or giving any opinion upon the political differences between the other states, convinced them of our determined policy that they maintain their political autonomy, and our desir- e, above all, for their material prosperity. Some of the projects and resolutions are doomed to remain in the air, owing to a little want of foresight on the part of the projector, who failed to put them in the hands of some perma-
nent committee or board to attend to the details of carrying them out, as was done with the proposed coffee congress, the custom-house congress, and the congress of sanitation. It was recognized, however, that the action of the conference on many matters could not be final, and that it ought to be followed up by further action at a subsequent congress, and consequently it was decided that not more than five years should intervene between the adjournment of this and the meeting of a third, unless it should be found, at the expiration of five years, that a postponement is desirable. The resolution passed to this effect specified that the congress should meet at a place to be selected by the Secretary of State of the United States and the diplomatic representatives in Washington, who should prepare the program and arrange details for the meeting.

FINANCES (See under United States.)

ITALY, a kingdom in southern Europe. The throne is hereditary in the line of Savoy by male descent in the order of primogeniture. The reigning King is Vittorio Emanuele III, born Nov. 11, 1869, only son of Umberto I and Queen Mar-
gerita, daughter of Prince Ferdinand of Savoy. He succeeded to the throne in consequence of the assassination of his father on July 28, 1900, mar-
rried on Oct. 26, 1896, Princess Beatrice, daugh-
ter of the Prince of Montecenego. The legislative au-
thority is vested in the Parliament, consisting of a Senate and a Chamber of Deputies. The Senate had 344 members in 1897, including four for the special princes who are Senators by right of birth. Sen-
ators are appointed from among citizens who have held high office or attained distinction in science, art, literature, or have conferred benefit on the nation in other pursuits. The number of Senators who may be appointed is not limited by law. The Chamber of Deputies contains 508 mem-
bers, for every 40,000 inhab. The budget for 1898 was 1,732,167,444 lire, and the extraordinary receipts at 79,757,065 lire. The ordinary expenditures

a certain amount of taxes or rent or occupy a shop or farm or have to serve in the army. Soldiers in active service are debarred from voting and salaried officials and ecclesiastics from sitting in the Chamber. The parliamentary period is five years. The Cabinet in the begin-
ing of 1902, first constituted on Feb. 14, 1901, was composed as follows: President of the Coun-
cil, Giuseppe Zanardelli; Minister of the Interior, Giovanni Gioielli; Minister of Foreign Affairs, Giulio Preti; Minister of the Treasury, Signor di Broglio; Minister of Finance, Paolo Carcano, appointed Aug. 9, 1901; Minister of Justice and Ecclesiastical Affairs, Francesco Cocco-Duttu; Minister of War, Gen. Count Coriolano Ponza di San Martino; Minister of Marine, Vice-Admiral Constantino Enrico Morin; Minister of Com-
merce, Industry, and Agriculture, Guido Baccelli, appointed Aug. 4, 1901; Minister of Education, Nunzio Nasi; Minister of Public Works ad in-
erium, Signor Zanardelli; Minister of Posts and Telegraphs, Tognozio Galimberti; from last date also afterward was made Minister of Public Works.

Area and Population.—The area of Italy is 110,646 square miles. The population at the cen-
sus of Feb. 9, 1901, was 35,931,000, an increase of 0.73 per cent. per annum since 1881, as compared with 0.61 per cent. in the previous ten years and 0.49 per cent. between 1881 and 1871. With the annual rate of growth at 0.28 per cent., the population will be 39,440,000 in 1911, and reach 43,200,000 in 1921. Of the total of 35,931,000 in 1901, 32,526,000 were Italian citizens, and 3,405,000 were foreigners. The number of marriages in 1900 was 252,531; of births, 1,067,376; of deaths, 728,917; of excess of births, 338,459. The number of emigrants in 1900 was 332,782, of whom 181,047 went to other coun-
tries in Europe, 67,714 to the United States, 42,720 to the Argentine Republic, Uruguay, and Paraguay, 27,438 to Brazil, 1,686 to Canada, 2,523 to Mexico, Colombia, Venezuela, and Central Amer-
ica, 409 to Chile, Peru, and Bolivia, 3,137 to America without designation of their destination, and 304 to other countries. Of the total number 190,573 declared their emigration to be tempo-
rary. This was the case of nearly all who left for other European countries, although many of these decide later to emigrate to America and embark from foreign ports. Of the total of emigrants 23,522, including 15,292, went from Piedmont to foreign ports, including 328 temporary, from Liguria; 21,401, including 16,678 temporary, from Lombardy; 104,
including 100,831 temporary, from Venetia; 22,094, including 19,429 temporary, from Emilia; 21,571, including 16,146 temporary, from Tuscan- y; 6,381, including 2,928 temporary, from the Marches; 2,415, including 1,900 temporary, from Umbria; 1,425, including 1,223 temporary, from Lazio; 22,932, including 4,296 temporary, from Abruzzi and Molise; 49,070, including 11,812 temporary, from Campania; 4,336, including 307 temporary, from Calabria; 8,117, including 23,328, including 6 temporary, from Calabria; 28,838, including 7,530 temporary, from Sicily; 694, including 680 temporary, from Sardinia. The population of the chief Italian cities on Feb. 9, 1901, was as follows: Naples, 565,731; Milan, 491,400; Rome, 465,000; Turin, 335,639; Palermo, 310,322; Genoa, 310,322; Florence, 204,900; Bo-
logna, 162,009; Venice, 151,541; Messina, 149,825; Catania, 149,604.

FINANCES.—The budget estimate of revenue for the year ending June 30, 1902, was 1,811,924,509 lire. The ordi-
ITALY.

The capital of the consolidated and redeemable debt on July 1, 1900, amounted to 12,645,289,334 lire. The annual interest was 579,855,494 lire. The interest on all the debts, including the permanent annuity of 3,289,000 lire due to the Holy See and 11,850,000 lire on treasury bonds and other floating debt, amounted in 1901 to 588,834,644 lire and the sinking-fund of the redeemable debt amounted to 2,506,805 lire. The 5-per-cent. perpetual rentes amounted to 400,392,409 lire, 3-per-cent. rentes to 4,603,262 lire, 41-per-cent. rentes to 60,584,131 lire, and the 4-per-cent. rentes to 7,741,236 lire, making the annual charge of the consolidated debt 473,321,058 lire. The debts separately inscribed called for 11,735,598 lire for interest at 3 to 5 per cent. and sinking-funds of 433,090 lire extinguishing between 1879 and 1911. Other redeemable debts required 88,502,988 lire for interest at 3 to 6 per cent. and 2,063,806 lire for their sinking-funds, which will extinguish them between 1905 and 1926. From all these sources the Government has aimed to create such confidence in the stability of Italian finance that it will be able to convert 9,000,000,000 lire of accumulated debt into gold. Baron Sonnino restored the financial equilibrium, and for eight years there has been a constant surplus, even with some remissions of taxation, bringing the country, it may be said, up to the level of that of the richest nations in Europe. Signor di Broglio, a Conservative, was taken into the Zanardelli-Giolitti Cabinet as Minister of the Treasury, and Giolitti's prudent financial policy would be still pursued. His resistance to the demands of his colleagues grew so weak, however, that a deficit was escaped by a narrow margin in 1902, when abnormal wheat importation and more solid improvements brought an increase of 12,500,000 lire in the revenue, but disbursements were increased nearly 25,000,000 lire. For 1903 he committed himself to 12,500,000 lire of additional expenditure. The year ending June 30, 1901, showed a surplus of nearly 50,000,000 lire, and one of 25,000,000 lire was predicted for the next year, but half of this disappeared in the War, the cost of militaryizing railroad employees and mobilizing one class of the reserves to avert a railroad strike was 9,500,000 lire, reducing the surplus to 10,000,000 lire. In 1903 net deficits the total was 100,000 francs of 3½ per cent. to take up floating debt. It was sold at 90 to Italian banks and brokers and rose almost to par in Paris where Italian Government bonds are quoted, and again after many years. The condition of the state banks in Italy has become satisfactory and the premium on gold almost disappeared in 1902. The general prosperity of the country has helped much to uplift the Government credit, in conjunction with rigid economy enforced by Ministers Sonnino, Luzzati, Boselli, and Rubini, and by the expanding industries and secondary crops are not the only factors in this prosperity; other causes, which have helped to promote industrial expansion and agricultural betterment, are the enormous amount of money remitted or brought home by Italian emigrants and the increasing amount spent by tourists in Italy.

The Army.—All able-bodied Italians are bound to military service between the ages of twenty and thirty-nine. The annual levy is divided into 3 categories. Those who are drawn by lot in the first category, or who volunteer, serve two or three years in the expenditure as estimated in the budget, while the extraordinary revenue falls short of the extraordinary expenditure by 84,186,188 lire.
bireeers and non-commissioned officers, who serve five years with the colors and four years on loan. Three or four years, and in the territorial militia. Conscripts of the second category are enrolled in the permanent army for eight or nine years, in the mobile militia for three or four years, and in the territorial militia for seven years, but receive only from two to six months of training. Those of the third category have one month of instruction and are inscribed at once in the territorial militia, the final reserve which has garrison duty to perform in case of war. In 1899 the number of recruits examined was 364,747, of whom 102,422 were assigned to the first category, 16 to the second, 96,856 to the third, 87,166 were put back, and 78,187 were found unfit for service. In 1900, by a special act of Parliament, all young men called up for service who did not of right belong to the third category as the props of their families, were assigned to the first category. Non-commissioned officers who after completing their term of military service in the times receive posts in Government employment. The army is organized in 12 corps: Ist, Turin; 2d, Alexandria; 3d, Milan; 4th, Genoa; 6th, Ve- rocello; 7th, Bolonia; 8th, Bologna; 9th, Rome; 10th, Naples; 11th, Bari; 12th, Pa- lermo. The Roman corps has 3 divisions, the others 2 divisions, each comprising from 2 to 7 of the 38 military districts. The officers are generally graduates of the military colleges. There are 13,572 active officers in the permanent army, 291 retired, 11,152 supplementary officers on leave 4 months, 43 auxiliary officers for the mobile militia, and 4,118 effective and 6,033 reserve officers for the territorial militia; total, 13,883 officers in the permanent army, 11,907 reserve officers, and 10,281 officers of the territorial militia. The rank and file of the permanent army in active service in 1900 numbered 249,821 of all arms, comprising 24,760 carabiniers, 124,794 infantry, 15,477 bersaglieri, 11,889 Alpine troops, 874 in military districts, 22,542 cavalry, 31,435 artillery, 8,812 en- gineers, 1,577 in military schools, 2,811 sanitary troops, 2,189 in the commissariat, 156 in the in- Fantry and Artillery Corps, 310 in the ordnance and disciplinary companies, and 382 in remount depots. The troops of the permanent army on unlimited leave were 4,721 carabiniers, 269 infantry, 31,104 bersaglieri, 21,890 Alpine troops, 10,403 in military districts, 28,738 cavalry, 80,483 artillery, 21,211 engineers, 10,052 sanitary troops, 4,297 commissary troops, and 10,064 in the police, railroad, and telegraph services; total, 492,555. The mobile militia consisted of 366 carabiniers, 192,104 infantry, 21,082 bersaglieri, 14,299 Alpine troops, 3,656 unassigned, 46,891 artillery, 12,592 engineers, 7,758 sanitary troops, 2,901 commissary troops, and 66 in the police, railroad, and telegraph services. The total number of men enrolled in the ranks of the terri- torial and veteran corps was 2,232,243 in penal establish- ments and disciplinary companies, and 228,206 non-commissioned officers and men. In Africa a special corps is maintained consisting of 1,062 Europeans and 5,975 native troops, besides 735 irregulars. The infantry on the Italian front is the Carcano-Mannlicher rifle of the model of 1891, having a caliber of 6.5 millimeters and a magazine holding 6 cartridges. The territorial militia is equipped with the same arms, as the infantry. The Navy.—The Italian fleet in 1901 con- sisted of 3 second-class and 4 third-class battleships, 8 armored cruisers, 5 old battle-ships, 12 protected cruisers, 11 destroyers, 11 second-class, and 71 third-
We refer to the previous document for the content related to commerce and production, navigation, and railroads, posts, and telegraphs. Here's the conversion to plaintext:

The value of raw and thrown silk exported was 349,001,500 lire; silk waste, 31,032,150 lire; cocoons, 1,431,950 lire; wine in casks, 57,378,248 lire; eggs, 50,035,440 lire; sulfur, 47,434,711 lire; hemp and flax, 43,397,373 lire; olive-oil, 31,935,708 lire; coral manufactures, 22,411,420 lire; cask skins, 21,583,935 lire; meat, fresh and salted, 17,900,185 lire; marble, 17,454,310 lire; cattle, 16,560,400 lire; rice, 10,467,445 lire; zinc ore, 12,305,700 lire; straw plait, 9,816,000 lire; cereals, 9,384,860 lire; dyers and tans, 7,794,871 lire; hogs, 3,978,610 lire; raw cotton, 2,610,400 lire; lead ore, 710,100 lire. The imports of precious metals in 1900 were 7,244,000 lire; exports, 16,550,560 lire. The values in lire of imports of merchandise from and exports to the principal foreign countries in the special trade of 1900 are given in the following table:

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>325,750,000</td>
<td>154,290,000</td>
</tr>
<tr>
<td>Germany</td>
<td>309,600,000</td>
<td>254,410,000</td>
</tr>
<tr>
<td>United States and Canada</td>
<td>320,400,000</td>
<td>172,420,000</td>
</tr>
<tr>
<td>France</td>
<td>168,300,000</td>
<td>168,710,000</td>
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<tr>
<td>Austria</td>
<td>144,840,000</td>
<td>130,060,000</td>
</tr>
<tr>
<td>Switzerland</td>
<td>207,440,000</td>
<td>189,320,000</td>
</tr>
<tr>
<td>Russia</td>
<td>65,410,000</td>
<td>66,920,000</td>
</tr>
<tr>
<td>Argentine Republic</td>
<td>52,820,000</td>
<td>55,490,000</td>
</tr>
<tr>
<td>India</td>
<td>38,820,000</td>
<td>39,900,000</td>
</tr>
<tr>
<td>Turkey and Balkan States</td>
<td>24,340,000</td>
<td>24,340,000</td>
</tr>
<tr>
<td>Belgium</td>
<td>12,300,000</td>
<td>12,300,000</td>
</tr>
<tr>
<td>Spain</td>
<td>18,900,000</td>
<td>18,900,000</td>
</tr>
<tr>
<td>Egypt</td>
<td>10,000,000</td>
<td>9,110,000</td>
</tr>
<tr>
<td>Brazil</td>
<td>16,500,000</td>
<td>15,500,000</td>
</tr>
<tr>
<td>Central America</td>
<td>20,400,000</td>
<td>6,900,000</td>
</tr>
</tbody>
</table>

Navigation. The number of vessels entered at Italian ports during 1900 was 103,801, of 30,107,329 tons; cleared, 103,439, of 30,148,455 tons. At Genoa 5,308, of 4,833,250 tons, were entered and 3,926, of 4,816,650 tons, cleared; at Naples 6,093, of 3,350,435 tons, were entered and 6,074, of 3,357,595 tons, cleared; at Leghorn 4,086, of 1,751,643 tons, were entered and 4,086, of 1,770,118 tons, cleared; at Messina 3,548, of 1,685,244 tons, were entered and 3,548, of 1,681,673 tons, cleared; at Palermo 3,372, of 1,659,848 tons, were entered and 3,378, of 1,699,662 tons, cleared; at Venice 3,907, of 1,288,940 tons, were entered and 3,105, of 1,302,776 tons, cleared; at Catania 3,345, of 1,245,954 tons, were entered and 3,345, of 1,246,528 tons, cleared.

The merchant navy on Jan. 1, 1900, consisted of 5,955 sailing vessels. There were 1,075,983 tons aggregate tonnage of 568,224 tons, and 409 steamers of over 100 tons, having an aggregate tonnage of 673,054 tons.

Railroads, Posts, and Telegraphs. The length of railroads on Jan. 1, 1900, was 9,810 miles. The number of passengers carried in 1899 was 57,914,709; tons of freight, 1,482,016 tons by express and 22,370,910 tons by slow trains. The passenger receipts were 112,882,545 lire. The total gross earnings were 305,764,483 lire, and expenses 216,574,919 lire. Most of the railroads belong to the Government, but since 1885 they have been leased to private corporations for sixty years, or for forty or twenty years if the Government exercises its option of terminating the contracts earlier.

The post-office in the year ending June 30, 1899, carried 276,921,850 postpaid letters and postal cards, 40,432,041 Government letters, 8,455,358 manuscripts and documents, 287,541 newspaper letters, 3,062,203 legal notices, 1,702,325 newspapers, 1,072,258 bank notices, 1,072,258 legal notices, and 1,072,258 newspaper notices.

The length of telegraph lines belonging to the Government on June 30, 1899, was 24,459 miles, with 80,133 miles of wire; of railroad lines, 1,968
miles, with 22,340 miles of wire. The number of paid domestic telegrams in 1898 was 7,890,081; for foreign telegrams, 109,415. The greatest length of tele-
phone-lines was 280 miles, with 375 miles of wire; number of conversations in the year, 111,772. The
receipts of the post-office in the year ending June 30, 1898, were $9,867,014; of telegraph offices, 
14,811,208; total expenses, $8,990,597 lire.
Politics and Legislation.—Zanardelli, the last surviving statesman of the historic Left, took the
premiership, and the supple Giolitti became Minister of the Interior after Gen. Pel- loux, the last of a series of Conservative minis-
ters who had trouble with the revolutionary par-
ties, himself appointed to deal in military fashion with revolutionists and labor organizers, nearly
provoked a revolution with his public safety bill. The Radical Minister had to rely on Social-
ist support, and its guiding principle was, not the
prevention of social disturbance, but the repres-
sion of disorder. The Socialists organized labor
unions and leagues of resistance throughout the
country without interference from the Govern-
ment. The agricultural laborers formed leagues.
The labor party increased to over 1,000 sections
with over 50,000 members. Strikes took place
ever to be checked by law within a year, often a
success; but only one was accompanied with
violence, and only then did the Government inter-
ference.

The traditional Radicalism of Signor Zanar-
delli and the Socialist affiliations of Signor Gio-
litti were reflected in the speech from the throne
delivered by King Vittorio Emanuele at the open-
ing of Parliament in Rome. In the reference to
foreign relations the Government could boast with
better reason than its predecessors of being
in a position to defend Italian interests by fidelity
to alliances and cordial bonds of friendship and
of securing the esteem of foreign nations by
a policy mindful of every right and duty. The
Government promised to reduce the price of salt
and to build extensive public works for the de-
velopment of Apulia and Naples. The separa-
tion of religion from the civil powers was to
be maintained, the clergy honored when con-
fined to the sanctuaries. The Radicals were ex-
pected to introduce divorce in Italy, since France
and other Catholic countries have divorce laws
now, but the action of Count Giussou, a Conserva-
tive member of the Cabinet who leaned toward
Clericalism in resigning because his colleagues
contemplated a divorce bill, though they were
not ready to introduce it immediately, not having
prepared the country for such an innovation, pre-
cipitated the bill, which was described as a pro-
posal to deal, in harmony with the common law
of other nations, with the ideal principle of the
indissolubility of civil marriage and to reform
by just regulations the law which deprives illegit-
imate sons of any right to a name and a career.
A bill on judicial reform was intended to secure
a higher degree of respect for the magistracy and
confidence in the administration of justice. La-
bor legislation occupied a prominent place in the
program. In addition to the increase by a recent
law of the old-age pension fund and bills already
submitted to Parliament, other measures were
promised for relieving the working classes and
developing social legislation, especially a bill on
labor contracts. The only consequences of the
new civilization were said to be the government
honored and strengthened by equitable compensa-
tion and prudent protection, raising the condi-
tion of labor to the reward of fortune. The speech
dwelt on the work of the Government for social
justice and peace, on the pacification obtained
by the policy of harmonizing law and liberty
because there was a rock ahead on which this
Government was compelled to take preventive measures in defiance of the Socialists, indicating its purpose by a reference to public peace, strongly protected. Among
the many classes of laborers that formed unions
were the railroad employees, who demanded of
the companies higher wages and a classification
and grading of their positions, with regular scales of pay and promotion. This organization of
the men was a condition in the contracts when
the companies leased the railroads, but had never
been fulfilled. The Opposition watched with
eager anticipation the development of a situa-
tion in which the Government must either break
with the Socialists and resort to the Conserva-
tive policy of suppressing labor organizations in
order to prevent strikes or face the consequences
of a tie-up of the railroads. The ministers found
a logical and legal way out of the dilemma and
indicated their policy plainly enough in good
time. They declared that they were public,
servants, and if two or more of them com-

ited to stop working they would commit an
unlawful act. In their case it was the duty
doing the duty of the Government that the cor-
rolative duty was to bring pressure to bear
make the companies pay fair wages and to
compel them, if necessary, to carry out the
terms of their contract. The Socialists
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right of workers to strike. They issued a decla-
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indissolubility of civil marriage and to reform
by just regulations the law which deprives illegit-
imate sons of any right to a name and a career.
A bill on judicial reform was intended to secure
a higher degree of respect for the magistracy and
confidence in the administration of justice. La-
bor legislation occupied a prominent place in the
program. In addition to the increase by a recent
law of the old-age pension fund and bills already
submitted to Parliament, other measures were
promised for relieving the working classes and
developing social legislation, especially a bill on
labor contracts. The only consequences of the
new civilization were said to be the government
honored and strengthened by equitable compensa-
tion and prudent protection, raising the condi-
tion of labor to the reward of fortune. The speech
dwelt on the work of the Government for social
justice and peace, on the pacification obtained
by the policy of harmonizing law and liberty
because there was a rock ahead on which this
Government was compelled to take preventive measures in defiance of the Socialists, indicating its purpose by a reference to public peace, strongly protected. Among
the many classes of laborers that formed unions
were the railroad employees, who demanded of
the companies higher wages and a classification
and grading of their positions, with regular scales of pay and promotion. This organization of
the men was a condition in the contracts when
the companies leased the railroads, but had never
been fulfilled. The Opposition watched with
eager anticipation the development of a situa-
tion in which the Government must either break
with the Socialists and resort to the Conserva-
tive policy of suppressing labor organizations in
order to prevent strikes or face the consequences
of a tie-up of the railroads. The ministers found
a logical and legal way out of the dilemma and
indicated their policy plainly enough in good
time. They declared that they were public,
servants, and if two or more of them com-
ited to stop working they would commit an
unlawful act. In their case it was the duty
doing the duty of the Government that the cor-
rolative duty was to bring pressure to bear
make the companies pay fair wages and to
compel them, if necessary, to carry out the
terms of their contract. The Socialists
uld not support a policy restricting in any way the
right of workers to strike. They issued a decla-
rion that the bourgeoys Cabinet had enabled
them to organize the reference to foreign rela-
nions the Government could boast with better
reason than its predecessors of being
a position to defend Italian interests by fidelity
to alliances and cordial bonds of friendship and
of securing the esteem of foreign nations by
a policy mindful of every right and duty. The
Government promised to reduce the price of salt
and to build extensive public works for the de-
velopment of Apulia and Naples. The separa-
tion of religion from the civil powers was to
be maintained, the clergy honored when con-
fined to the sanctuaries. The Radicals were ex-
pected to introduce divorce in Italy, since France
and other Catholic countries have divorce laws
now, but the action of Count Giussou, a Conserva-
tive member of the Cabinet who leaned toward
Clericalism in resigning because his colleagues
contemplated a divorce bill, though they were
not ready to introduce it immediately, not having
prepared the country for such an innovation, pre-
cipitated the bill, which was described as a pro-
posal to deal, in harmony with the common law
of other nations, with the ideal principle of the
indissolubility of civil marriage and to reform
by just regulations the law which deprives illegit-
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railroad conventions will expire, and while the men aimed to strengthen their position before their renewal, the Government hesitated to bring pressure upon the companies lest any concessions gained from them now would be advanced as a ground for more lenient conditions to be given in the new contracts. The Government urged the companies to make concessions to the men. The companies offered to present a scheme of bureaureaucratization provided the Government would withdraw its suit. This the Government would not do. Besides the militarization of railroad employees, the Government called out the reserves of the class of 1878, some 55,000 men. On Feb. 25, on receiving a report that a strike was to be proclaimed immediately, the Government seized the telegraph-lines and for a day and a half let no private messages go over the wires, so that no strike orders could be sent. War-ships were sent to Naples, Leghorn, and Genoa to have marines present to aid the police. The railroad strike was settled by an agreement to pay the men 42,000,000 lire in increased wages, of which the Government contributes 33,000,000 and the railway 9,000,000 lire, in the next three years, after which the railroad conventions will be renewed and the men will formulate their demands for the future. When Parliament assembled in March, Morin voted for the Government candidate for president, Sigeri Bianchini, who received 350 votes, while Signor Costa, the Socialist candidate, received 24. Thousands of peasant banner supporters of the rural Socialist leagues in the north of Italy, struck work, and Sigior Giolitti, when charged by the Conservatives with permitting the growth of a subversive Socialist movement, said that before social peace could be restored the wealthy classes would need to make more sacrifices to the just demands of the proletariat. On the question of confidence in the policy of the Government, a section of the Extreme Left once more voted with the ministerial party and 45 others abstained from voting, giving the Cabinet a majority of 250 to 165. The portfolio of Public Works was given on March 27 to Niccola Balenzo, a southerner, like Count Giussio. The reservists of 1878, who were called to arms for three days in the army, found that the railroad troubles were settled, and in Piacenza, Milan, and other places they made public demonstrations in favor of immediate discharge. The Minister of War called the ceremony of the prevention of further insubordination, and in the Senate endeavored to minimize the incidents, and said that discipline was restored. His own military prestige could not be restored, and on April 25 he resigned. Admiral Morin took charge of the department until a successor was found on May 14 in Gen. Giuseppe Ottolenghi. The immediate occasion of Gen. Ponza's retirement was an altercation between Signor Giglotti and Gen. Pelloux by which the latter, a corps commander, deserved either a reprimand or justification. Gen. Pelloux, who had obtained a bill of indemnity for the militarization of railroad men by order of his predecessor, the Marquis di Rudini, argued that the present Ministry ought to legalize their action in the same way. The Minister of the Interior was indignant that the legality of the proceeding should be called in question and accused the ex-minister of seeking to undermine discipline. In the air the agreement in this respect failed in the north, broke out in Apulia, where there was more misery, and the strikers became disorderly and were quelled by carabiniers. The Chamber authorized the expenditure for an aqueduct from the Apennines through the province of Apulia to cost 200,000,000 lire, of which the state and provincial authorities contribute 125,000,000 lire and 75,000,000 lire will be furnished by a company which has the concession for ninety-nine years. This is the most important work yet undertaken in Italy, and another project for the development of the South is the improvement of communications between Rome and Naples. A score of bills were passed in haste just before adjournment on July 1. Early in the year, at the close of the previous session, Parliament sanctioned the gradual reduction of octrois on bread and flour, together with measures for compensating the consequent loss of revenue. The economical distress prevailing in the southern provinces, aggravated by these local duties and other fiscal burdens and by a temporary financial crisis resulting from easy credit at usurious interest, was caused by the destruction of forests, the injury wrought by the phylloxera among the vineyards, and depreciation of the olive-crop.

The trial of Raffaele Palizolo, an ex-Deputy and man of wealth and education, who had served as Postmaster General in the cabinet of Signor D'Annunzio, lasted eight months and resulted in his conviction and that of his agents in crime, and sentences of thirty years' imprisonment for each on July 30, was a victory for the Opposition parties and the Mafia. Emanuele Notobartolone at the time of the bank frauds in 1893 was appointed by Premier Crispi president of the Bank of Sicily. Palizolo, who was related to and was said to have been chief looter of the bank, procured his removal before he had completely unearthed the rascals and fastened them on their authors. Public opinion compelled the Government to reappoint him, but on the journey to Palermo he was shot dead through the window of a railroad-carriage. The trainmen and all who might know, and even the police, as is usual when crimes against life occur in Sicily, helped to cover the tracks of the criminals. Lieut. Notobartolone hunted the murderer of his father for years, obtained proofs that Palizolo had procured this murder and that of Francesco Miceli, steward of an estate that Palizolo sought to acquire by fraud, and denounced him and his accomplices who committed the murders in 1899. The court allowed them to investigate the case, and after several fruitless examinations the venue was changed to Bologna, where a jury found the three guilty. In Naples and Calabria the prevention of the spread of the Mafia in Sicily. A bandit named Musolini, who had combined robbery with private vengeance and pursued a career of blood for many years with the connivance of all the people in his district, was caught at last, and after a trial at Lucca was sentenced to imprisonment for life.

The laws and local government suited to Lombardy and Piedmont when extended to the old kingdom of Naples proved too complex and costly. The land tax has reached 39 per cent. of the valuation. Baron Somnina proposed to reduce this one-half, and also the 21-per-cent. interest on mortgages held by the state banks, amounting to 100,000,000 lire. Premier Zanardelli's proposal is to reduce the land tax on small farms, new buildings, and lands which have been reforested, and to exempt from income tax new farm buildings, grazing land, and workmen's wages throughout Italy, and to reduce the salt tax. In strike riots at Naples, soldiers were stoned and at Giarratana some of them were killed. They fired and killed many peasants, and the ministers who defended their action were assailed by the Socialists. But the Extreme Left
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was no longer a solid phalanx of 100 members. It was divided into half a dozen warring factions. The Socialists, who denounced anarchists and ridiculed Republicans, were themselves divided into irreconcilable schools. The revolutionary Socialists, led by Prof. Ferri and Andrea Costa, who have been most active and numerous, were defeated in the party congress at Imola in October by the evolutionary or opportunism group, the leader of which, Signor Turati, had been read out of the party in the spring as too lax and lukewarm in his socialism. The question of divorce was brought forward by a Socialist who introduced a bill in Parliament, the principle of which was approved by members of all parties, even Conservatives, who considered it unjust that, while the wealthy can obtain recognition in Italian courts of divorce they have obtained in foreign countries or sometimes get a divorce in the form of an annulment of marriage by the Church for the lower classes marriage is indissoluble. The Premier deemed it imprudent to leave this question in the hands of the Socialists, especially since the Pope delivered an encyclical against divorce, and the Clerical party started an agitation against divorce. A Government bill was introduced, but was not pushed forward because public opinion was not yet ripe. The occupation of Tunis by France in 1881 with the consent of England and Germany, Italy appealed in vain to Austria and Germany to protect her Mediterranean interests, as guaranteed by the triple alliance. She complained of the French naval station of Bizerta as a menace to Sicily, and though her allies declined to intervene, France abstained from going on with the fortifications. A naval agreement was made with England in 1887, when the triple alliance was renewed, for the preservation of the status quo in the Mediterranean. In 1896 the convention with Tunis expired, and a new one was concluded with France in which French suzerainty over the regency was recognized and Italy abandoned her rights under the capitulations. In 1898 England offended Italy by recognizing as within the French sphere of interest the Tripolitan Hinterland. The Italian Government sounded the European pots with regard to an eventual occupation of Tripoli. Germany disclaimed any interest in the matter; France could recognize no right to appropriate a Turkish province and had no desire to occupy Tripoli herself, having given assurance to the Porte to that effect, for she had no interest in placing obstacles in the way of any action of Italy; England disclaimed all intention of occupying Tripoli, but declined to contract an engagement to support Italy in such an enterprise and was in general opposed to the vivisection of Turkey. Italy assured France that she had no objections to the French occupation of the Hinterland of Tripoli and the occurrences in the Hinterland of Morocco could not be considered as a Mediterranean question. When afterward the French made incursions into the Tripolitan Hinterland to punish tribs against the Moroccans who had attacked them under French protection Italy invariably asked explanations, and those that were given were evasive and unsatisfactory. When the trade relations between Italy and France improved Italy asked for a categorical statement and a formal assurance, and was reminded that she had joined other Mediterranean powers in urging the Sultan to put down the insurrection in the Sahara Railroad as dangerous to his dominions, which he declined to do unless the same powers would guarantee him against receiving any detriment. The result of the pourparlers thus opened was a formal declaration on the part of Italy that she would not oppose any development of French power in Morocco and of one on the part of France that she would not encroach upon Tripoli nor oppose in any way the eventual Italian occupation. England afterward formally declared that she would not object to the annexation by Italy of Tripoli and would suffer no encroachment by Egypt on the eastern frontier. Italy and Austria-Hungary had an agreement to preserve the status quo in Albania, where Italian trade and education were fostered by the Italian Government. After an understanding was reached with France the fortification of Bizerta was resumed and the port opened as a great naval harbor. An Italian fleet visited Toulon. King Victor Emmanuel visited various European courts in the summer of 1902, but not the court of Vienna, which preserves relations with the Vatican that preclude royal visits between the two powers. He went to Berlin, but his first visit was to the court of the Czar, where Signor Prinetti and Count Lamsdorff discussed the concordance of Italian and Russian interests in the Balkans. An Italian fleet visited Tripoli as a sign of the claim, now formally recognized, of the heritage of Italy in this part of the Turkish Empire. The occupation of Tripoli was not yet complete, but the Porte at the same time increased the garrison and strengthened the fortifications. The Italian squadron visited later the Adriatic ports of Turkey and refused to go to an armistice made later on the Porte that the pirates of the Red Sea be suppressed, and before the Turkish war-vessels appeared Italian ships captured and punished some of the offenders. A diplomatic conflict arose in the spring between Italy and Switzerland. The Italian minister in Berne, Commendatore Silvestrelli, called the attention of the Swiss Federal Council in the summer of 1901 to attacks on the royal family of Italy printed in the anarchist journal Rievoglio of Geneva. He did not urge the matter, but in the spring of 1902, when articles appeared praising the murder of King Umberto, he called on the federal authorities to prosecute the editor under the Swiss penal code for inciting to crime. The Federal Council replied that too much was taken in proportion of the law he cited; but if he would appeal in the name of his sovereign for proceedings to be taken against the editor based on any article vilifying the King of Italy, action could be brought under the law for the protection of foreign sovereigns, which required such a preliminary request. He did not wish a trial in which scandalous stories about the royal family could be repeated, and therefore he demanded the application of the penal law against incitement to murder. The Federal Council presented its pretension to interpret Swiss law, and requested his recall. When his importance was realized, the Italian Government declined to recall the minister, and in consequence the Swiss Government broke off diplomatic relations with Italy in April. Through the mediation of Germany efforts were resumed in August, when both governments appointed a new representative.

Dependences.—Eritrea is an Italian colony embracing the province of Massaua, on the Red Sea, where Egypt had a garrison before the evacuation of the Soudan, and a Hinterland formerly claimed by Abyssinia and ceded to Italy in the treaty of Uccle, 1890. The treaty of Adis Abeba, signed Oct. 26, 1896, in which Italy renounced the claim of a protectorate over Abyssinia, concedes to Italy all territory north of
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Austria. To take their place the Italian mint has coined 2,175,000 Eritrean dollars.

South of Abyssinia, Italy has a protectorate over the Sultan of Obbia and the Mijertain and occupies the ports of Brava, Merka, Mogadiscio, and Warsheik, which were ceded by the Sultan of Zanzibar in 1892. (See EAST AFRICA.)

The frontiers between Eritrea and the Egyptian Soudan and Abyssinia were settled by a convention with England and one with Abyssinia. The Anglo-Egyptian authorities agreed to transfer to Italy the territory between the Mareb and the boundary of the Soudan which Menelek had ceded to them, and he ratified the arrangement in return for the retrocession to Abyssinia by Italy of the enclose of Tomat. The Ethiopian Negus furthermore sanctioned the occupation by Italy of the Kunama country. He granted in another document mining, industrial, and trading concessions to Italians covering Tigre, Gondar, and the upper basin of the Tazakze.

When the British operations against the Mad Mullah were extended so that it was desirable for a British force to pursue the foe into Italian Somaliland the Italian Government gave permission on condition the British Government should accompany the expedition. At the same time Italian war-vessels endeavored to stop the importation of arms into Somaliland. The delimitation of French and Italian possessions on the Red Sea recognized territory north of Ras Dumeira as Italian, including Raheita. The Sultan of Raheita, whose predecessor ceded to Italy in 1870 her first African outposts in the delta of Assab, caused a disturbance which led to the annexation in May, 1902, of his dominion to Eritrea.

JAPAN, a constitutional empire in the Pacific Ocean, between the possessions of Russia and the United States, governed by the oldest constituent body in the world. Of the unknown number of islands, of which more than 4,000 have been counted, about 500 are inhabited. Area, exclusive of Formosa, 147,050 square miles. The population is 9,763,543, of which 7,455,470 are Chinese, 1,299,999 are Japanese, 1,848,074 are Koreans, 2,982, 129,349 tons, cleared A railroad, 17 miles long, from Massowah to Saati, is being continued to Asmara, the seat of the administration; and a telegraph line is to be constructed to Adis Abeba. A railway line now runs from Massowah to Asab, 319 miles, and thence to Perim, 62 miles. The common unit of value is the Maria Theresa dollar, coined in

May 5, 1901, and Haruhito, born June 25, 1902, are the fruit of this union. The corner-stone of the new palace for the imperial prince, which is built of American brick, was laid on May 9, with imposing ceremonies in foreign style, these taking the place of the usual native customs at the completion of the roof-timbers. The civil list is 3,000,000 m. s.

Since 1889 the Emperor has shared legislative powers with the Imperial Diet, consisting of two houses. By the new election law there is, besides 316 peers and imperial nominees in the upper house, an increase of 13 new members in the lower house, making 382. Franchise-holders must pay at least 10 yen in direct taxes. These new number 967,327. With numerous changes of the Cabinet since 1889, constitutional reform has been steadily continuous toward the British rather than the German system, and the general tendency of political life is toward democracy. The last lower house was the only one that lived out its full term, and the Kaisura Cabinet, formed in July, still holds office. The seventeenth annual meeting of the Diet began Dec. 6, 1902.

The Emperor presides actively over the imperial Cabinet, which consists of the Ministers of State and 9 heads of departments. He is also assisted by a council of 20 veteran statesmen, who are especially influential in the appointment of the Mikado's servants, from Cabinet officers to consuls.

The Army.—The whole male population between the ages of twenty-one and forty is liable to military service, and the total number avail-
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able is 600,000, divided into three classes: (1) The active army and reserve; (2) the army of defense in the reserve, divided into the territorial army and reserve. Military service lasts three years in the active army and four years and four months in the reserve of the active army, seven years and four months in the first class of the army of depot, and one year and four months in the second class of the same army, five years in the territorial army, and eight years in the reserve of the territorial army. There are 12 military districts, in each of which is an army division, in addition to the Imperial Guard, which is stationed usually in Tokio. The actual military strength, including the police, is 7,850 officers, 162,000 non-commissioned officers and privates, and 30,000 horsemen, which on a war footing is increased to 8,065 officers, 221,074 non-commissioned officers and privates, and 44,000 horses. In the reserve are 950 officers, 33,389 non-commissioned officers and privates, and 5,000 horses. The territorial army consists of 3,198 officers, 122,964 non-commissioned officers and privates, and 21,000 horses. There are 19 regiments of artillery, each divided into three sections of 2 batteries, and each battery has 6 pieces, the field-pieces are the field-mortar of Gen. Arisaka, which was recently decorated by the Emperor for his services. They are quick-firing guns, with a caliber of 75 millimeters. In each of the 13 divisions are 2 brigades of infantry, the field-artillery, and 1 battalion of engineers. Each of these regiments includes 6,000 men, and is fully equipped for field-service. The active army is equipped with the Arisaka rifle, adopted in 1897. It has a caliber of 6 millimeters and fires a projectile of 22 grams, with an initial velocity of 725 miles. The Murata rifle, used in the Chino-Japanese War in 1895, and in use by the reserve and territorial armies, has but 580 miles of initial velocity. The Mutsu-class battleships of 25,000 tons, and the two cruisers of 10,000 tons, and the four destroyers of the same class, are the latest additions to the navy. The national force consists of 750,000 men, and 5,000,085 yen, and 2 fully equipped hospital ships. The Navy.-Within seven years after seeing Commodore Perry's war steamers in Yedo Bay, the Japanese navigated a steamer of their own across the Pacific, and naval development has since made steady progress. There are five maritime districts, in three of which are thorough facilities for the repairing and building of ships. Of the post-bellum program, formulated in 1895, from 57,000 tons in 1894 to 200,000 tons by 1905, there are now afloat and in commission 6 new battleships of 25,000 tons (the Mikasa, of 18,362 tons, arrived in May, 1902); 2 old battle-ships of 46 guns; 10 old battle-ships for coast-defense of 36 guns; 6 first-class cruisers with 103 guns, 2 first-class gun-boats with 19 guns, making with despatch-boats, torpedo-destroyers, and torpedo-boats, 69 ships with 1,110 guns; besides which, a fleet of between 20 and 30 modern vessels are kept in a state of repair. The chief of the navy, Commodore Togo, who took part in the Russo-Japanese war, was at the battle of Tsushima, on March 27, 1905, when he had the honor of being decorated with the Order of the Chrysanthemum (2 classes). He is now a admiral of the fleet, and is in command of the grand fleet. In the meantime, the number of men has increased 100 per cent., or from 17,140, in 1896, to somewhat over 33,000 in 1902. There is only one naval college, at Edajima, capable of preparing officers for the fleet. The number is being planned for Yokosuka. Great improvement has taken place in the weight of the personnel of the navy. The average body weight of 19,983 persons, measured in 1898, was 159 lbs.; in 1901, it shows an increase from 123 to 126 lbs. The total military expenses of Japan on land and water average per head of population 1.74 yen, against 2.00 of administrative expenses, and much less than that of any other country.

Bases.-The total available wealth of Japan is reckoned by her own economists at 15,000,000,000 yen, but the large number of enterprises required to change the nation from an insular and agricultural to a commercial, manufacturing, and maritime people has made a drain upon the ready capital of the country, which has revealed at once both its wealth and its poverty. The rates of interest are being lowered, and the gold reserve in the Bank of Japan has been substantially increased, showing greater financial stability. On Oct. 1, 1897, Japan adopted the gold standard. The coins issued in 1901 amounted in value to 15,049,045 yen. The coinage of 1901, compared with that of 1900, shows an increase, chiefly in gold, of 2,100,059 yen. Largely through defects of management the postal savings-banks show but 2,572,680 depositories, or 4.3 per cent. of the population. In 1901 average in deposits 11.77 yen, making a total of 26,806,859 yen. In the same year 6,248,700 yen were sent home from Japanese living abroad.

Finances.—The budgets of recent years have raised the aggregate debt of the cities and prefectures from 9,093,801 yen in 1893 to 33,187,906 yen in 1901. The national unredeemed debt in 1900 was 503,200,684 yen or 11.5 per person. The chief items of national revenue are taxes on land, saké, income, business, sugar, soy, customs, and stamps, the revenue derived from posts and telegraphs, state monopolies, railways, and in recent years the Chinese indemnity, making a grand total in the budget of 1902 of 273,631,176 yen; the total expenditures amounted to 276,424,485 yen, these in the main branches of Finance, Communications, War, Navy, Home, Justice, and Education. The trial budget for 1903 shows a revenue of 256,000,000 yen and an expenditure of 252,000,000 yen. The chief items are the custom-house works at Kobé, 3,500,000 yen; riverine works, dikes, etc., a census on scientific principles, 450,000 yen; telephones, 1,430,000 yen; various industrial outlays, including a subsidy for the St. Louis Exposition, amounting in all to 5,500,000 yen. Among the details of the foreign offices appropriations of 6,500,000 yen are allowances for 4 new consulates and 9 honorary consulates, all in China and Korea. The cost of military operations in China for the year ending March 31, 1902, was 13,587,920; of sending a squadron to England for the coronation, 397,841 yen; of overseeing the elections, 119,090 yen; of floating and repairing stranded men-of-war, 288,618 yen; of gathering up bodies from the Awomori disaster and for funeral rites, 150,000 yen. Through Messrs. Baring Brothers a loan to the Japanese Government for 5,000,000 yen at 5 per cent. interest was subscribed several times over in London. In this way, the Japanese, as a part of the empire, with a total capital of 317,766,000 yen. In Formosa, where silver is temporarily the standard, 1,256,235 pieces of silver yen of the same type as those in the latter, yet the yen has passed the at the Osaka mint in 1901 to serve as the reserve fund for the notes of the Bank of Formosa.
Hokkaido.—The Hokkaido, especially in Yezo, is developing in all lines of industry, notably in harbor improvement, placer mining—in which American placer diggers have introduced great improvement since 1900—in the opening of new ports, and in the working of coal-mines and petroleum wells. Muroran, opened as a port of export in 1894, is now the third largest port in Japan and the chief coaling-station of steamers between North America and China. In 1901 89 foreign steamers, of 100,921 tons, and 7 Japanese steamers, of 42,035 tons, entered the port. Hakodate is the chief port, able to accommodate 109 vessels of 5,000 tons, while Muroran can harbor 38. Otaru is the next port of importance. The total population of the Hokkaido in 1899 was 58,467; in 1899, 922,508; in 1901, 1,020,000; total trade in 1901, $450,000.

Products and Enterprises.—Contrary to early supposition, Japan is not rich in minerals, yet the total mineral output in 1900 was 49,936,378 yen, showing an increase of 4.5 times, compared with a decade ago. The value per person in 1898 was 0.91, compared with England's 19.23, Austria's 3.91, and Russia's 1.15. Most branches of the mining industry are, as to the methods employed, still in their infancy. The output of iron ore was 2,835,000 tons, valued in value. Japanese coal is of two kinds, the soft and the hard, which latter is greatly inferior to British coal. In 1900 7,429,457 tons were mined, to the value of 54,631,000 yen. In petroleum, Echigo leads. The total output of Japan in 1900 was 310,000,000 gallons of oil, worth 1,941,518 yen. Of sulfur, 14,435 tons, worth 312,535 yen, were mined.

The import of petroleum in 1901 was 55,197,080 gallons, worth 14,943,400 yen. Despite the imported supply, the demand for Echigo oil, which supplies three-tenths of the petroleum used in Japan, has increased. In 1895 6,334,160 gallons, worth 526,976 yen, and in 1901 44,632,280 gallons, worth 2,345,916 yen, were produced. Refined native petroleum is equal to the best American and Russian oils.

The average rice-crop for the seven-year period ending in 1901 was 204,281,088 bushels. The crop for 1901 was 270,742,000 bushels, an increase of 15.2 per cent. below last year's crop, or 179,023,195 bushels.

In 1900 the Japanese constructed in their own docks 192,454 vessels, including 12,828 tons, and 48 sailing ships, with a tonnage of 16,243, while buying abroad 346 steam and sailing ships, with a tonnage of 135,666. In Japanese waters 7 vessels or steam-yachts are engaged which use the harpoon gun to hunt the minor species of whales. The mercantile marine shows a total tonnage of 648,225, of which 179,894 are of sailing ships and 477,330 in steamers, making her, as to power of steam sea transit, sixth on the list of the great nations of the world—ahead of Russia and Sweden, and only slightly below Spain and Italy. In Yokohama dwell 5,858 foreigners, of whom 3,550 are Chinese, 915 British, and 452 Americans.

Emigration to Korea increases steadily. In 1902 44,000 Japanese went thither.

Trade and Labor.—For the first time, the volume of exports and imports has exceeded 500,000,000 yen, the exports being in value 248,000,000 yen, and the imports 255,000,000 yen, being 33,000,000 yen less than last year. The total bulk of the trade showed an increase of 11,000,000 yen, and the imports exceeding exports by only 6,000,000 yen.

The silk trade shows in exports an increase from 7,743,203 pounds, worth 47,966,256 yen in 1895, to 11,537,924 pounds, valued at 74,400,947 yen, in 1901. Up to 1900 the United States took 0.8 of Japan's sales of silks, but last year the American share was 0.7.

The number of American and European firms in Japan is decreasing. At Yokohama in 1899 there were 303, while in 1900 there were but 241. Whereas in 1896 the value of exports from Japan amounted to 13,823,943 yen and the imports from China 21,344,021 yen, the exports in 1901 were 42,925,579 yen and the imports from China 27,285,988 yen, or a total volume in 1891 of over 70,000,000 yen.

It was permitted until July, 1902, to establish an exchange with a capital as small as 30,000 yen, but the Government now requires a capital of 100,000 yen, and the time of the transactions in negotiable securities must not be for a longer period than two months; the previous limit was three months.

The chief imports from the United States are raw cotton and petroleum, these two making up more than half the value of the whole, and different kinds of machinery, engines, electric apparatus, etc. The value of exports to the United States was $58,956,800 yen in 1900, 299,176. This was by far the largest bulk of traffic with any Western country, and more than twice as much as with any country except China.

In 1892 about one-twelfth of Japanese trade was carried in native bottoms. In 1901 about three-fourths of the exports and imports was moved in native vessels. In 1901 the Japanese steamer tonnage in Japanese ports was 3,861,659, and was surpassed only by British ships, with a tonnage of 4,080,583. Germany and Russia both exceeded the United States, only 178 American ships, with a tonnage of 404,754, entered Japanese ports.

The Japan Steam Mail Company, which has lines of steamers making regular trips to ports in Europe, America, Australia, British India, China, and Korea, have begun the establishment, in connection with the Hunan Company, of a line from Yokohama, in order to secure feeders for their steamers at the Shanghai terminal.

In 1901 185,000 tourists traveled in Japan or stopped over during their voyage. The cost of the trip is computed that they spent $20,500,000 in the country.

Education.—Japan has now four universities, two of them being on Government foundation, at Tokyo and Kioto respectively, and two in Tokio under private auspices. Commissioner Wu, sent out by the Chinese Government, has been for three months investigating the various grades of Japanese schools and their methods. There are 43 public libraries, with a total of 728,067 volumes, of which 65,585 are foreign. One in Tokio, on Government foundation, has 401,519 volumes. Fifteen libraries, with a total of 189,946 books, have been established by local authorities, and 21 libraries, with a total of 156,002 volumes, established by private individuals. A new public library, opened June 15 in Tokio, was founded by the late Mr. Ohashi, who made his money in publishing standard Japanese literature, chiefly fiction in cheap form. He devoted 125,000 yen for its building, equipment, and maintenance. Mr. Osake Mr. Sumitomo bestowed 200,000 yen for a public library. Another instance of private liberality is the mercantile school of Mr. Okura.

Religion.—In 1901 the number of Roman missionaries was 782; of churches, 458; of mem-
bers, 46,834; and the money raised by natives amounted to 117,817 yen.

The Roman Catholics have 1 archbishop, 3 bishops, 109 foreign missionaries, 34 native priests, 201 churches and stations, and 55,824 members.

The Russo-Greek Church has 4 foreign missionaries, 283 native priests, and 26,680 members, who contributed 7,894 yen to Christian work. In Tokio there are 23 Christian sects, 103 church-buildings, 127 foreign missionaries, and 66 native pastors. The Buddhist sects show considerable activity, and have adopted not a few features of work and methods borrowed from the Christians. The Salvation Army has been active in the reformation of the social evil. In 1899 there were in the empire 52,274 prostitutes, and in 1901 there were 40,195, with a heavy decrease in visitors to brothels and in brothel receipts, largely through the regulation granting "free cessation" to prostitutes. The total decrease of numbers in 1901 was 23 per cent.

Politics and Events.—On Jan. 23 Major Yamaguchi with a battalion of infantry left Aomori to practise marching in the snow; but, owing to the heavy storm, they were overwhelmed and most of them were frozen to death, throwing only 98 out of the 310. The sum of 1,830 yen was raised by the foreigners in Japan for the relief of the families of the dead, and 150,000 yen was appropriated for the same purpose by the Japanese Government. The cold weather was exceptional, some places in the Hokkaido showing 40° below zero.

Major-General Arika was awarded by the Emperor, second class, the Order of the Rising Sun and a donation of 2,000 yen for his inventions in arms and ammunition.

On Feb. 11, on the date of the promulgation of the Constitution, an announcement was made of the conclusion of an alliance between Japan and Great Britain, and great popular rejoicings followed. Its objects are to maintain the status quo and general peace in the extreme East, and especially the independence and integrity of the Chinese and Korean Empires, and to secure to the signatories full and free enjoyment of the opportunities created during the year the agitation of the payment by foreigners of a house tax was kept up, the matter being finally referred for arbitration to the International Tribunal at The Hague.

The session of the Diet closed March 10. Of 79 Government bills presented during the 29 sessions of the lower house, 69 were passed. Of 5 bills sent down from the upper house, 1 was passed. Of 94 bills presented by its own members, 37 were passed. The House dealt with 146 measures in all, most of the work being done in committee. In the upper house, 42 Government bills received, 36 were passed. Of 30 bills sent up from the lower house, 17 were passed. Of 5 bills presented by the peers themselves, 1 was passed. The relations between the two houses were, during part of the time, rather unpleasant.

A great fire broke out in Fukui, March 30, destroying 4,000 houses in the business part of the city. The princes of Riukiu (Loo Choo Islands), after years of expectation that China would resume rule over the archipelago, cut off their hair, put on foreign clothes, sent their children to the missionary schools, and paid social visits in Tokio, where they now reside. After more than thirty years of retirement in Shidzukou, Keiki, the last of the shoguns has been invited to the capital, to appear offficial court, and recently was exalted to a high degree in the nobility.

Marcus island, occupied by the Japanese for some years, was visited by the Kasagi, man-of-war, the Japanese Government having been formally notified that the United States had no claim. It was discovered by a Japanese in 1879, and was formally annexed in 1898 under the name of Minami-Tori Shima.

The Imperial Post Department celebrated on June 25 the twenty-fifth anniversary of its entrance into the Universal Postal Union by the issue of memorial postal cards, in a set of five, of elegant execution.

The faction fights, with a purpose of ethical reform, in view of the licentiousness of the abbots and priests in the Shinshu sect, the richest and strongest sect among the Buddhist denominations, were continued during the year with personal violence.

A great typhoon, beginning below the Ryukiu Islands, swept the coast of Japan for three days until the afternoon of Aug. 28, doing immense damage, unroofing or destroying edifices, demolishing wharves and breakwaters and the famous Red Bridge at Nikko, driving gunboats and battleships on the rocks, besides pouring a tidal wave 60 feet high over the Odawara district, which spent its force a half-mile inland, lifting boats from their beds, covering rice-fields with sand, and killing or drowning more than 300 persons, besides overturning railway-trains.

This year the Chinese Imperial Government and local authorities gave immense assistance in China about 50 Japanese teachers, railway engineers, experts for industrial enterprises, legal advisers, chiefs of police, and other helpers in various lines of police.

Formosa.—The area of this island, ceded by China to Japan in 1895, including adjacent islets, is 5,535 square miles. The number of obnoxious insects has greatly decreased, and the death-rate among the Japanese has decreased by more than 75 per cent. The twenty years' program of improvement, inaugurated by the Government, estimated to cost 35,000,000 yen, includes a trunk-line railway, a thorough survey of the whole land, and the settlement and confirmation of landholders' rights, harbor improvement, and the building of houses and residences, with drainage, water-works, etc.

The year 1902 was notable for a steady development of the physical resources of this island. For the education, tranquillity, and welfare of the more civilized portion of the inhabitants, and for active military operations against the rebellious savages of the mountains and forests, resulting in hundreds of casualties on both sides, but with steady loss to the savages. In the national budget the subsidy for encouragement of navigation in Formosa amounted to 800,000 yen. The foreign trade of Taiwan in 1900 amounted to 24,141,949 yen, and in 1901 to 21,106,015 yen.

Besides 1,500 private schools attended by 25,000 pupils, there are 1,490 small elementary schools sustained by the Government, attended by 27,500 pupils, or 6 per cent. of the eligible children of school age. In the Pescadores 96 elementary schools were attended by 10,000 pupils. The principle is to Japonize as much as possible the natives, whose minds are impregnated with Chinese thought, and who are pro-Chinese in nearly everything. There are also many private and normal schools, besides a score or more in which the Japanese language and literature are taught.

The problem of malaria has been successfully attacked by segregating one battalion of infantry from the bites of mosquitoes for one hundred and
sixty-one days, during which not a single case of malaria occurred, whereas 259 cases occurred in 1900. During the first five years of Chinese occupation imports increased from 7,127,534 yen to 9,284,016 yen, an increase of less than 30 per cent, against 140 per cent. Increase for a similar period under Japanese rule, the total imports in 1900 being 22,005,695 yen. The entire revenue of the island is expended on local improvements, and 150,000,000 yen have been put into circulation. Modern improvements and industries are springing up all over the island. The city of Taihoku is virtually Japanese, clean and well drained, with macadamized streets, brick and stone houses, and well-stocked shops. A thousand miles of ordinary roads, often with great engineering difficulties to overcome, have been constructed, and the old railways of Chinese days have been entirely reconstructed. There are now 93 miles of ordinary, and 200 miles of narrow-gage railway, and 1,400 miles of telegraphic wire on land. New cables to Japan, Foo-Chow, and the Philippine Islands have been laid, and several telephone-lines put in operation. Hospitals have been established in the leading cities, at which poor Chinese receive treatment. The actual revenue of the island in 1900 was 15,000,000 yen. The Director-General reports that from 1895 to 1901 the total amount expended by Japan, including military expenses, was 150,000,000 yen; the total revenue during the period being 200,000,000 yen, but the annual revenue now yields between 14,000,000 and 20,000,000 yen.

Jews. The most important event of the year for the Jews of the United States was the arrival of Dr. Solomon Schechter, a native of Roumania, but for many years a resident of England, where he was reader of Rabbinic at Cambridge University and occupied a high place in the learned world. For some time negotiations had been in progress to secure his services for the Jewish Theological Seminary of New York. On its completion he was invited to accept an appointment, largely due to gifts from Jacob H. Schiff, he left England and reached New York on April 17. His active duties as director of the seminary began in June. The seminary is practically a post-graduate school; its course of study is broad and thorough, and its aim is to impart a wide scholarship. Prof. Schechter has been identified with positive traditional Judaism. His inaugural address, on Nov. 20, was a stirring plea for breadth and scholarship in Jewish seminary training. His view of Judaism was pithily expressed in the words: "Judaism is not a religion which does not oppose itself to anything in particular. Judaism is opposed to any number of things, and says distinctly 'Thou shalt not.' It permeates the whole of your life. It demands control over all your actions, and interferes even with your menu. It insists upon the observance both of the spirit and the letter. In a word, Judaism is absolutely incompatible with the abandonment of the Torah (law). We must leave off talking about Occidentalizing our religion, as if the Occident has ever shown the least genius for religion or freedom of conscience. We are convicting various laws. These and similar platitudes and stock phrases, borrowed from Christian apologists, must be abandoned entirely, if we do not want to see our community sink into Paulinism, which entered the world as the deadliest enemy of Judaism, pursued it through all its course, and is still finding its abettors among us, working for their own destruction. There is no other Jewish religion than that which is sanctioned by the authority of history and tradition and, sunk into the conscience of Catholic Israel."

A further evidence of educational progress was the issue of the second and third volumes of the Jewish Encyclopedia, whose successful publication is now assured. It is difficult to overestimate the value of this undertaking, not only for the popularization of Jewish knowledge, but for the spectacle afforded of Christian and Jewish scholars in kindly cooperation. The Jewish Publication Society, which has now 4,908 members, issued several works in 1902: Strangers at the Gate, by Samuel Gordon; Idylls of the Gass, by Martha Wolfenstein; Heath and Home Essays, by Esther J. Russak; and the first volume of a new edition of Grace Aguirre's writings. The new edition of the Bible is under preparation; its first volume, the book of Psalms, is ready for the press. The expenses for the year reached $14,984; receipts, $15,271; permanent fund, $217,145.

At the annual convention of the Central Conference of American Rabbis, held in New Orleans, May 7, the discussion on the Sabbath, which has been so widely discussed, aroused much interest. Papers were read on The Jewish Religious School, by H. H. Mayer; The Bible and Modern Thought, by S. Sale; The Sabbath Question, by Vaeroanger; and Congregational Activities outside of Pulpit and School, by L. M. Franklin.

The fifth annual convention of the Federation of American Zion Societies was held in Boston, May 25. The strength of the federation was shown to be 174 societies. The income was $5,214; expenses, $1,329.

At the quinquennial convention of the order Free Sons of Israel, in Philadelphia, May 18, the number of lodges had increased to 103, all funds amounting to $333,277. There were 11,000 members, and a reserve fund of $935,000.

At the triennial convention of the Sons of Benjamin, in Philadelphia, July 6, the strength of the order had risen to 20,000 members, with a guarantee fund of $750,000.

The summer session of the Jewish Chautauqua, in Atlantic City, July 6-27, was memorable for a variety of lectures and discussions on subjects like the Austrian Settlement, by Rev. Dr. B. Mintz; Palestine, by Rev. Dr. B. Mintz; The Institutions of Non-Jewish Scholars to Jewish Literature, by Rev. D. Kohler; The Uses of Hebrew Manuscripts, by Prof. S. Schechter; Jewish Characters in English Fiction, by Max J. Kohler; Assyria and Egypt and the Monuments, by Rev. C. H. Levy; Gorky, by Dr. E. G. Hirsch; Shylock, by Dr. Leon Harrison; Modern Hebrew Literature, by G. B. Levi. In addition there was a school of practical teachers, popular conferences on Jewish university students and religious training after confirmation, and a course on applied philanthropy, with addresses on Social Unrest, Needy Families in their Homes, Organization in Relief Work, Dependent and Destitute Children, Preventive Work, Neighborhood Work, etc.

The second biennial Conference of Jewish Charities was held in Detroit, May 20, 25 cities being represented, about half of the membership. Among the subjects discussed were the diffusion of Jewish immigrants on the East Side of New York, the value of free loan societies, chatel-mortgage loan companies and pawn societies, delinquent children, the placing of immigrants, consumption, and the psychological workers. At the meeting of the American Jewish Historical Society, Jan. 30, papers were presented,
among others, on Jewish Activity in Early American Commerce, Jew Names in the Maryland Manuscript of 1775-82, Sold at Heidenfeldt, The Jews of Georgia during the American Revolution, Sampson Simon, References to Jews in the Diary of Ezra Stiles. A resolution was introduced in the House of Representatives on April 30 by Hon. H. M. Goldfogle, of New York, asking for information from the Department of State, whether American citizens of Jewish faith holding passports issued by the American Government are excluded from Russia, and what action on the subject, if any, had been taken by any department of the United States Government. Secretary Hay's reply was that the department has no information indicating that American Jews stand upon a footing different from that occupied by Jews of other lands in the administration of Russian law, and efforts to secure uniform treatment of American citizens in Russia, begun years ago, have continued, but not with encouraging success. Far more effective was the action of the United States in reference to the Jews of Roumania, in a circular letter sent on Aug. 11 by Secretary Hay to the powers that had signed the treaty of Berlin in 1878, that modified the treaties of 1856. As civil and religious liberty had not been enjoyed by the Jews of Roumania, in the interest of humanity it asked for more consideration and justice, and showed the cruelty and unfairness of forced emigration of any class to American shores, the only hospitable asylum left to them. Secretary Hay closed with these words: "Whether civilization and true humanity are necessary elements of treaty or law, it is unanswerable that if the unhappy people, burdened and spurred by their native land, are forced by the sovereign power of Roumania upon the charity of the United States, this Government can not be a tacit party to such an international wrong. It is constrained to protest against the treatment to which the Jews of Roumania are subjected, not alone because it has unimpeachable ground to remonstrate against the resultant injury to itself, but in the name of humanity. The United States may not authoritatively appeal to the stipulations of the treaty of Berlin, to which it was not and can not become a signatory, but it does earnestly appeal to the principles consigned therein, because they are the principles of international law and eternal justice, advocating the broad toleration which that solemn compact enjoins and standing ready to lend its moral support to the fulfilment thereof by its signatories, for the act of Roumania itself has effectively joined the United States to them as an interested party in this regard." While no definite action has resulted from the letter, international sympathy was aroused for the disfranchised Jews there, and the debate in the Roumanian Senate late in December on the naturalization of Jews showed the salutary influence of the American protest.

The third triennial convention of the National Council of Jewish Women was held in Baltimore in December. It was formed in 1894, and has now 84 local sections and a membership of 7,060, with 82 study groups devoted to social, educational, philanthropy, and literature; 18 mission schools; activity in kindergarten, sewing, and industrial schools; 2 day nurseries; and other helpful agencies. The receipts for the year were $11,000, and the expenses about $8,800. Among the addresses were Aspects of Judaism in America, by Henrietta Szold; Judaism in Small Towns, by Mrs. M. Zappe; Judaism and the Young, by Mrs. W. Miller; Federated Charities, by Max Senior; Civil Service, by Mr. Bonsarte.

There were meat riots in New York, and a few other cities in May, with women as leaders, dignified at the high price of meat, which was felt keenly by the Jews in the congested districts. There was also a riot on July 30, which disturbed the funeral of Rabbi Jacob Joseph in New York, and which Mayor Low promptly investigated, censuring severely some police officials.

In January the President appointed the Hon. Oscar S. Straus a member of the Hague Court of International Arbitration, to succeed the late ex-President Harrison.

The first synagogue at Hong-Kong was dedicated on April 17, and the cornerstone of the first synagogue in Portugal since the expulsion was laid on May 25 at Lisbon.

England had its royal commission in prolonged session to investigate the evils of unrestricted immigration of aliens. A conference of Jewish women and a union of literary societies were held in London on May 13 and June 29.

At the Viennn Zionists' Congress, October 22nd, the latest results of the movement were thus summarized: First, the creation of a Jewish Statistical Bureau; The committee appointed for this purpose had organized an association in Berlin, and branches had been established in Germany and Austria. A Palestine bibliography was being prepared, and investigations were being conducted. Second, the Jewish Publication Society in Berlin: Necessary capital was provided by the section in the form of a guarantee fund to which Jewish writers and financiers contributed. It had already published a Jewish almanac and a pamphlet entitled Jewish High Schools. Third, courses on the science of Judaism, in the form of university extension lectures. Fourth, reform of religious instruction: Preparations were being made to summon a conference of teachers of religion. Fifth, art exhibitions. Sixth, Jewish high schools. For further investigations, as well as for promoting and financing the scheme for the establishment of a Jewish university, a committee had been formed in Geneva. The bureau had conducted special investigation into the conditions under which Jewish students in the various lands lived. Sums for the furtherance of this object, amounting to about 1,000,000 francs, had been guaranteed by Jewish financiers. For the whole project about 12,000,000 francs are required.

K

KANSAS. (See under United States.)

KENTUCKY. (See under United States.)

KOREA. Ta-Han, or Cho-SEN, an empire in eastern Asia, between China, Japan, and Russia. It is a peninsula with an estimated area of 92,000 square miles, bordering on the Yellow Sea and the Sea of Japan, with a frontier line of several hundred miles along Manchuria, and for 11 miles on the northeast bordering on the Tumen river, which separates it from Asiatic Russia. By the Chino-Japanese War of 1894-95 Korea became an independent state. On Oct. 14, 1897, the King assumed the title of Emperor, giving to his realm the name of Ta-Han (Great Han, meaning all Korea, in distinction from the ancient San-Han or Three Kingdoms). By the alliance between Great
Britain and Japan, entered into Feb., 1902, the integrity and independence of the Korean Empire are guaranteed. The chief interests of diplomacy, trade, banking, commerce, fishing, and navigation are in the hands of the Japanese, who, in 1902 numbered 30,000. Korea, on her part, agrees to raise her naval and military establishment to a footing sufficient for her own defense. In case of disturbance, she agrees to restrict herself to the markets of Great Britain, Japan, and the United States, and promises that no foreigners shall be appointed to places in the Korean state service, that measures shall be taken for the protection of Korean territory, and that protests shall immediately be made against any state or persons attempting to erect works or buildings calculated to injure Korea's scheme of national defense.

No exact census has yet been taken of the population, but the official report made for revenue in 1890 enumerates 5,608,351 persons. The population is variously estimated by foreigners from 8,000,000 to 15,000,000. While copper, nickel, brass, and some silver money is mined in SectionOLD, the circulating coin of the country is the Japanese yen, worth 50 cents.

Government.—The present Emperor was born Aug. 23, 1852. He is assisted in government by the Council of State and 8 ministers—RoyaHouseold, Finance, War, Justice, Agriculture, Education, Home and Foreign Affairs. There are 14 bureaux, each presided over by a governor, and 360 districts, in each of which is a magistrate with numerous assistants. An excessive number of people keeps the country poor. Except revenue vessels, there is no navy, but an army of 7,000 men, including infantry, artillery, and cavalry, is equipped and drilled in Western style. There are 4 political parties, founded almost wholly on clan and family affiliations, with the common idea of securing as many as possible of the Government offices. Much attention and vast sums of money are devoted to graveyards, and the national revenues are lavished on royal tombs and the salaries of their keepers.

Finances.—The revenue of the empire, which in 1902 was estimated at $7,586,530, comes chiefly from the land tax ($4,488,235). There are taxes also on the sale of merchandise ($850,000). The chief expenditures are the imperial purse ($737,361), expenses of prefects, palace police, army, police departments, posts and telegraph stations.

The currency is in a very disordered condition, native gold and silver being out of circulation, and nickel coins, many of them counterfeit, have some circulation at a heavy discount when compared with Japanese money. The Korean Society of Tokio estimates the amount of money in circulation in 1902 as follows: Copper cash, $8,000,000; nickel, $14,000,000; copper cents, $800,000; brass cash, $80,000; Japanese coins, $1,550,000; Japanese paper, $870,000; Korean silver dollars, $3,330,000; Korean silver 20-cent pieces, $150,000. Most of the silver money is being withdrawn from circulation and hoarded.

Trade.—The lack of sufficient rain for more than two years, causing a famine and much disease, has also greatly hindered trade. Nevertheless, in 1901 the imports from foreign countries amounted to $7,359,083; imports from Korean treaty ports, $2,598,183. The exports to foreign countries amounted to $2,488,083; the exports to treaty ports, $1,491,641. The import of nickel blank for coinage was $300,106, while gold was exported to the value of $2,488,083.

In the Korean system of custom duties, goods brought directly to Korea from other countries figure as imports from foreign countries, while those which are transhipped via China and Japan are entered as imports from Korean treaty ports. There is a direct line of communication between the United States and Korea, so that American products, cotton, petroleum, metals, machinery, etc., do not appear separately, but are included with those from China and Japan. Most of the cotton fabrics woven in Japan are manufactured from American cotton, and the same is true of the tobacco brought from Japan, besides many other articles imported from China and Japan. In 1901 American petroleum and sundries were valued at $312,001; mills machinery and equipment, $240,000; electrical goods and lumber, $250,021; or a total of $967,022. Since Americans began mining operations in Korea, in 1896, the exports of gold have steadily increased from $892,425 in 1896 to $2,468,108 in 1901. The amount of gold produced by placer miners in the province of Ping-Yang in 1901 was 44,800 ounces, on which the Government tax was $112,000. The export of gold from the port of Woman in 1901 was $1,076,247.

Communications.—The telephone system is being extended in Seoul, and from the capital to Chemulpo. The telegraphic development in the interior is about 2,500 miles of line with 27 bureaux, employing 113 men as directors, engineers, secretaries and operators, and 303 line men. The Morse line system is in use, although the use of the Leclanc line is not prohibited. Horse relays are kept at various centers to facilitate communication with distant points. Telegrams may be sent in Korean, Japanese, Chinese, or specified foreign languages. In 1899 112,450 telegrams were sent, the receipts being $50,088; in 1900, 123,410 telegrams were sent, the receipts being $72,443; in 1901, 152,685 telegrams were sent, the receipts being $96,830.

The postal system, under French direction, is in a very satisfactory condition. In 1896 the Government engaged E. Clemenceet, Esq., as adviser and instructor, who expanded and modernized the postal service and trained assistants, till now there are, in addition to the central bureau at Seoul, 57 postal stations in full operation and 330 on ordinary regis
tered correspondence. On seven main highways, with a network of postal routes, service is daily in both directions. The secondary offices are served three times a week by means of 472 foot couriers. In the center, south, and northwest of the empire each route is covered back and forth in five days. In the north and northeast eight days are required for each round trip. In 1901 1,703,000 pieces of mail-matter were carried, and the receipts were $27,130.

The railway from the seaport of Chemulpo to Seoul, 20 miles, including a 10-span steel bridge across Han river, built and put in operation by American contractors, has reduced the time between seaport and capital from eight hours to one hour and one-quarter. There are 11 stations and 6 trains daily each way. The same American firm has built and operated an electric railway in and beyond Seoul, which is used by the natives for daily traffic and for reaching the mausoleum of Queen Min at Keum Gok, 15 miles distant from the Great Bell in the center of Seoul. The Tokyo Electric Company has the largest single electric plant in Asia. The American firm holds it under a mortgage, operating the overhead-trolley road and furnish
ing incandescent and arc lights for the city, the former luminaries numbering over 1,400. Two
120-kilowatt rotary converters from the Westinghouse Manufacturing Company, with boilers of the Babcock and Wilcox type, produce a direct current of 550 volts for the use of the cars, and at the same time alternating currents of 385 volts for the electric lighting. The consulting engineer is a Japanese, a graduate of the Massachusetts Institute of Technology. The official opening of the section from Seoul to Sangdo (the ancient capital) of the Seoul-Wiju Railway (under the auspices of the Korean Government, with French engineers, etc.) took place on May 4, 1902, with ceremonies and speeches by Cabinet officers in the presence of 200 persons. But it has since been temporarily abandoned for want of Korean funds. The railway from Fusan to Seoul, under Japanese direction, is steadily proceeding, with a great army of workmen, and is to have 40 stations. The first section, 1 mile, from Fusan to Chonang, was opened to travel early in October, 1902.

Politics and Events.—The year is noted for a lack of rain and a general famine that has caused great suffering and loss of life, together with the report of the destruction of the bounty by the hungry people, accompanied by outbreaks of anarchy and robbery. Considerable Government help was required for the people, there being 2,000,000 needy people in Seoul, where last winter 90 persons were frozen to death. On Aug. 1 the prisons in Seoul were full to overflowing, and there were 40 executions that day.

A report for 1901, amounting to 68,120 pounds, was sold to a Japanese firm for $625,000. The supply being in excess of the demand, the purchasers at once burned 13,100 pounds. The market is limited, the Chinese being almost the only consumers. It is asserted that only that raised at the imperial farms at Sangdo have real medicinal virtues. Here the soil is a disintegrated granite, and the farms are guarded with great care, but the annual crop has been steadily growing larger. The normal annual quantity is 19,650 pounds. In some years 85 a pound is paid for Sangdo ginseng, but always a very much lower price for other grades of the root.

On June 11 the Japanese steamers Kuma-gawa Maru and Kiso-gawa Maru, belonging to the Osaka Navigation Company, collided near Chungho, 85 miles south of Chemulpo, and the former was sunk, the loss of life being 17 Koreans, 6 Japanese, and 1 American—the Rev. H. G. Appenzeller, for many years a most valuable missionary and teacher in Korea. The coast of Korea is not yet furnished with lighthouses, but the Government program calls for 30 lighthouses and a lighthouse steam tender, at a cost of $1,000,000 yen. The first private-owned Korean steam-vehicle entered Chinnampo this year.

A monument to the Japanese killed in the Chino-Japanese War of 1894-'95 was erected on the great mountain of Nansen, near Seoul.

A vein of fine anthracite coal was opened in the summer of 1902 at Muan, in Chulla province.

In a great storm, Sept. 24, 115 lives were lost and 4,012 houses destroyed.

A revival of Buddhism is noted in the dedication of a great monastery outside the East Gate of Seoul, in which 800 Buddhist monks took part, and in charge of which 50 soldier monks are to be permanently kept.

About 100 Korean students are pursuing their studies in Japan and 40 in the United States.

The custom of saluting by discharges of cannon on the New Year and other national holidays was introduced on Sept. 18, in honor of the fortieth anniversary of the Emperor's accession to the throne. The Emperor made donations in aid of the sufferers from cholera, an account of the prevalence of which disease in Seoul the national celebration was postponed until March, 1903.

A memorial intended to commemorate the brilliant events of the present Emperor's reign was begun in April, and will be set up in the capital.

A new monument to Kija, the founder of Korean civilization, already begun, is to be erected in Ping-Yang. On the site of Kija's ancient home a new palace to be built by the Emperor is to occupy a site 1,200 by 600 feet in area.

Equalization of weights and measures throughout the empire, in accordance with imperial decree, is being carried out.

The raids of Chinese bandits on the northwestern frontier were numerous in 1902, but most of them were successfully driven back by the native soldiery armed with modern rifles.

A great fire at Fusan, early in November, made 1,400 people homeless.

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**LIBRARIES, PUBLIC.** Statistics for 1901-'02 relating to public libraries owned and controlled by municipalities are given in Bulletin No. 40 of the United States Department of Labor (September, 1902), covering cities having a population of 30,000 or over—137 in all. The accompanying table gives figures for the principal cities, and indicates the nature of the information.

**Gifts.—** The record of gifts and bequests to American and English libraries, July 1, 1901, to June 1, 1902 (single gifts of $500 or 250 volumes and over), covers 721 gifts, representing a money value of $11,974,258.4. Of this amount, $7,604,000 was contributed by Andrew Carnegie to 234 libraries, including 86,559,000 given to 214 libraries in the United States. Mr. Carnegie, during about a decade, made gifts to 368 cities and towns in the United States.

**Commissions.—** Four new library commissions are to be noted, those for Nebraska, Washington, Idaho, and Delaware.

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<tr>
<th>CITY</th>
<th>NUMBER OF MUNICIPAL LIBRARIES</th>
<th>NUMBER OF POINTS</th>
<th>NUMBER OF VOLUMES</th>
<th>NUMBER OF POINTS DURING THE YEAR</th>
<th>NUMBER OF POINTS WITHDRAWN</th>
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Legislation.—During 1901 106 laws were passed in 31 States and Oklahoma Territory. Much of this legislation aims at the extension of the use of existing libraries, cooperation between municipalities, and the formation of new libraries in small towns, schools, and rural dis-
districts. Cities and library boards are given greater freedom of action in the establishment and management of public libraries and their financial appropriations are larger, and in six States the maximum tax limit has been raised.

Increase of Books.—President C. W. Eliot, of Harvard University, advocates storing the mass of unused books in a depository away from, and on cheaper ground than the main library, so that shelves and catalogue in the latter may not be clogged by a mass of dead matter. This depository could be a storehouse for the disused books of all the libraries in a certain defined district, and the books would be "reasonably accessible to real students." While the Harvard Committee reported that the policy of discarding books from the library in any large numbers is inadmissible, yet the problem of shelf-room, in face of the increasing rate at which large collections are growing, certainly becomes more perplexing and seems to call for "some new policy concerning the storage of these immense masses of printed matter." This recalls the processes of sifting or weeding advocated by C. F. Adams (1893) and others. Correlated principles referred to are that of forwarding to the library which makes the largest use of a subject, which accumulate on those subjects, and that of the exchange of duplicates, the latter bringing up the oft-discussed scheme of a general "clearing-house." At all events, Dr. Eliot's increase of the dependence on interlibrary loans.

Methods of cooperation between the great reference libraries as to the manner in which specialities shall be cultivated by each library, help also to avoid unnecessary duplication of certain large groups of books.

In connection with this question, Dr. Billings, in his address as president of the American Library Association, said: "I think it well, however, to remind you of your duties to this your national library, and especially that the librarian of every city, town, or village in the country should make it his or her business to see that one copy of every local, non-copyrighted imprint, including all municipal reports and documents, all reports of local institutions, and all addresses, accounts of ceremonies, etc., which are not copyrighted and do not come into the book trade, is promptly sent to our national library."

New Buildings.—Among the larger library buildings completed during the year are the following: St. Joseph, Mo., Free Public Library ($96,500 for building; $11,000 for site); Trenton, N. J., Free Public Library ($115,000); Cheyenne, Wyo., Carnegie Public Library ($50,000); first Carnegie library building in New York city — Yorkville Branch of New York Public Library.

Fiction.—The large proportion of works of fiction drawn by readers is always a fruitful subject for discussion. Herbert Putnam, of the Congregational Library, makes the radical suggestion that no work of fiction be purchased by libraries until a year after its publication. Certainly the public library can not satisfy the demand for an immediate supply of a new novel to all who desire it; some must wait, and wait long. The question of indexing fiction by subjects has also been brought up again, and in one library, at least, they have classified fiction on special subject (titles) with the subject on the shelves.

Bibliography, Cataloguing.—An important event was the transfer of the issue of printed catalogue cards from the Publishing Board of the American Library Association to the Congregational Library. The former body issued in 1902, as a result of cooperative effort, the carefully annotated Bibliography of American History: A Bibliographical Catalogue of a Large Collection of Historical Literature, which exemplifies in a striking manner the principles of the "evaluation of literature" advocated by Mr. George L. Dice. The work of the board has been greatly aided by the gift of $100,000 from Andrew Carnegie, the announcement of which gift by President John S. Billings formed a memorable event in this year's convention of the American Library Association. It is "a donation for the preparation and publication of reading lists, indexes, and other bibliographical and literary aids."

The issue of index cards for periodicals not covered by Poole's Index is going on, and cards have also been printed for miscellaneous sets, such as the British Parliamentary Papers, the Massachusetts public documents, the National Museum Bulletin, Smithsonian publications, United States Bureau of Education Circulars, and Massachusetts Historical Society Collections.

Travelling Libraries.—In New York State, which has 1,000 traveling libraries, pictures are now sent out as well as books, as also apparatus, scientific collections, and maps; even traveling libraries for the deaf now appear that in many of the States the development of the traveling-library idea is largely due to women's clubs. In theumber regions of Canada, traveling librarians not seeming expedient, permanent reading-camps are being established, and appear to have good results.

Home Libraries and Reading Clubs.—"Statistics show that a large city's population will not come to the library." The work of the "home libraries," referred to here in 1900, is extending. Boston is reported to have 80 of them, Baltimore 30, Chicago 30, Philadelphia 4, the New York Public Library 25, Cincinnati 15, Helena 2, and Pittsburg 31. They are usually managed by charitable institutions and libraries, either separately or in conjunction. In the Congressional Library readings for the blind have been begun, T. N. Page and F. H. Smith being among the readers.

Associations.—The New York Library Club has issued a manual which gives information concerning 298 libraries, with branches, 350 in all, and serves as a useful guide to the collections on important special subjects which may be found in the various libraries of the metropolis.

France.—The French Ministry of Public Instruction passed an order on Dec. 24, 1901, permitting and regulating interlibrary loans, the National, Ste.-Genevieve, Mazarin, and Arsenal Libraries, Library of the Institute, and university libraries being authorized to lend duplicates to each other.

Germany.—Aladbert Roquette's pamphlet on Die Finanzlage der deutschen Bibliotheken (1902) calls attention to the insufficient means at the disposal of German university libraries. Not only have but few annual endowments been increased, but the large increase in the number of books published as well as augmented prices have served further to reduce the proportion of necessary books which the libraries are able to buy. Impaired usefulness is the natural result. Besides the obvious need of larger appropriations, a well-developed system of interlibrary loans, with a few large libraries as bases of supply, is suggested.

Dr. Chr. G. hottinger opened a library school for women in Berlin in 1900, with the object of opening a wider field for women's work rather than to develop the public-library idea.
LOUISIANA-PURCHASE EXPOSITION.

Denmark.—Traveling libraries are being fitted out in the government schools and go to small libraries, and from them to the surrounding villages.

Russia.—Theodor Pavienko, a publisher of Vladivostok, Siberia, has given 100,000 rubles to open a library.

Australia.—New libraries are organized with the usual Government aid under the municipalities act. Books for these libraries are furnished up to the limit of $200 by the Government.

Asia.—In April, 1901, was issued Vol. I, No. 1, of the Toheki, official organ of the Kansai Bunko Kyokai or Western Library Association (of Japan), with an interesting table of contents.

A public library of Chinese books was founded at Shanghai by Mr. Loo in 1901.

LOUISIANA. (See under United States.)

LOUISIANA-PURCHASE EXPOSITION.

In 1890 the St. Louis Republic of May 12, in discussing centennial celebrations of great events in the history of the United States, said: "In the United States of 1803 all the present Territories of the Purchase will be States, and they will be represented with the whole union here in St. Louis at this centennial of the birth of the nation begotten by Jefferson when he wrote the Declaration of Independence. If 1776 declared our independence of the world, 1803 achieved it, and the States of the Louisiana Purchase should join in making this Western centennial the greatest of all. Discussion continued in various journals, until on June 7, 1896, David R. Francis, at the annual meeting of the Business Men’s League, said: "St. Louis is the gateway of that vast territory (Louisiana Purchase), and she should celebrate her centennial in 1901 by a great international exposition, second to none ever held in the world." The agitation thus begun continued, and on Feb. 5, 1899, a bill was introduced in Congress providing for the holding of an international exposition in St. Louis in 1903, in commemoration of the Louisiana Purchase. A meeting of the Missouri Historical Society in September resulted in the appointment of a Committee of Fifty, who arranged with the Governor of Missouri for a convention to which the governors of the States and Territories in the Louisiana Territory were invited to send delegates. This convention met on Jan. 10, 1899, in St. Louis, and 14 Louisiana-Purchase States and Territories were represented. Resolutions were adopted favoring an international exposition to be held in St. Louis in 1903 to commemorate the centennial of the Louisiana Purchase. An Executive Committee, with David R. Francis as its chairman, to take charge of the plans, was authorized, and it was decided to invite the United States Government to participate in the exposition and financially assist in promoting it. The Executive Committee determined upon a plan for raising $5,000,000 by popular subscription, and asking $5,000,000 from St. Louis and $5,000,000 more from the United States. The Executive Committee, with increased membership, was then reorganized with Pierre Chouteau as chairman of the General Committee; David R. Francis chairman of the Executive Committee, and committees as follows: Finance, Legal, and Legislative, of which W. H. Thompson, James L. Blair, and F. W. Lehmann were respectively chairman. A movement for an appropriation of $5,000,000 by Congress for the exposition was framed, and it was introduced in the House by Representative Joy, of St. Louis, and in the Senate by Senator Cockrell. On April 22, 1901, the bill for appropriation was introduced in Congress, and the sundry civil bill passed on June 4, 1900, containing an amendment promising support and $5,000,000 conditional on $10,000,000 being raised by St. Louis. On Feb. 2, 1901, the Louisiana-Purchase Exposition bill passed the lower house of Congress, and on March 3 the Senate took favorable action, and the bill was at once signed by the President. A commission consisting of Thomas H. Carter, Montana; President; Martin H. Gunn, New York, Vice-President; John M. Thurston, Nebraska; William Lippard, Kansas; John L. McBride, Oregon; Frederick A. Betts, Connecticut; John M. Allen, Mississippi; John F. Miller, Indiana; Philip D. Scott, Arkansas; and Joseph Flory, Secretary, was appointed by President McKinley on March 12. The Louisiana-Purchase Exposition Company was incorporated with an authorized capital of $50,000,000, and at its first meeting, held on May 2, the following officers were elected: President, David R. Francis; First Vice-President, Corwin H. Spencer; Second Vice-President, Samuel M. Kennard; Third Vice-President, Daniel M. Honore; Fourth Vice-President, Pierre Chouteau; Secretary, William H. Thompson; and Secretary, Walter B. Stevens. Also, the following committees were appointed: Executive, Press and Publicity, Ways and Means, Transportation, Finance, Agricultural, Grounds and Building, Insurance, and Foreign Relations. The selection of a site was immediately considered, and the municipal authorities authorized the use of the city parks. Seven proposed locations were inspected, and on June 25, 1901, the directors unanimously approved the Executive Committee’s selection of Forest Park, and announced the decision, which was approved by the Mayor and Commission the next day. The announcement of the following Commission of Architects and Committee on Grounds was then made: Isaac S. Taylor, Chairman and Director; Granville Taylor, C. F. Gehrke, Thomas A. Smith, John Boies, and Paul W. M. Boiselle, St. Louis; Barnett, Haynes, and Barnett, St. Louis; Eames and Young, St. Louis; Van Brunt and Howe, Kansas City; Carrere and Hastings, New York; Cass Gilbert, New York; Walker and Kimball, Omaha and Boston; Theodore C. Link, St. Louis. With equal promptness chiefs of the different divisions were appointed as follows: Agriculture, Frederic T. V. Skiff; Education, Howard J. Rogers; Art, Halsey C. Ives; Liberal Arts, John A. Ockerson; Manufacture, Miller H. Hubert; Machinery, Thomas M. Moore; Electricity, W. E. English; Agriculture and Acting Chief of Horticulture, Frederick V. Taylor; Fish and Game, Tarleton H. Bean; Mines and Metallurgy, Chief, J. A. Holmes; Honorary Chief, David T. Day; Transportation, W. A. Smith; Social Economy, Howard J. Rogers. A Division of Exposition was organized, and commissioners were sent to foreign countries for the purpose of creating an interest in the exposition and securing exhibits. This commission consists of Thomas W. Crider, Europe; John Barrett, Oriental Countries; Vittorio Zeggio, South America; Giuseppe d'Attilo; José de la Torre, Paraguay, Uruguay; John Taylor Lewis, Brazil; Ernest H. Wands, Colombia, Ecuador, Peru, and
Venezuela; Charles M. Pepper, Cuba; John Rice Church, Costa Rica; Jose Costa, Honduras, Nicaragua, and Salvador. Resident representatives: Joseph H. Brucker, Berlin; Palmer L. Bowen, Paris; and George F. Parker, London.

The site chosen for the exposition is a well-timbered tract of about 1,300 acres inside the city boundaries, half of which will be occupied by the exhibition. The remainder of the land necessary lies just across a well-known country road, and will be connected with the main body by every device common or necessary in such cases. Within this area are the grounds of Washington University, comprising about 110 acres, which, with the use of the college buildings, only recently completed, were leased to the Exposition Commission. On consideration of this privilege, the company will erect buildings to be left upon the ground for the increase of university accommodations. The main group of exhibit buildings will be 15, 11 of which are arranged in the form of a fan, the Art Palace forming the apex at the southwest. The construction of the buildings was promptly undertaken in May. The first stake on the world's fair site was driven, with appropriate ceremonies.

The larger buildings include the Art Palace, which will be built upon fireproof pavilions, the central 1 to be permanent. The dimensions of the united structure will be 450 by 830 feet, and the estimated cost is $1,000,000. In the central structure there will be an international Sculpture Court. Where certain works of sculpture can be shown to better advantage in the open, space will be provided for them in the spaces adjacent to the Art Buildings. There will be spacious, well-lighted galleries for paintings and specially adapted galleries will be provided for the installation of models of buildings, sculptures and decorations, mural paintings, wood-carvings, and various other objects of applied art. Provision will be made for the installation of certain works in stained glass, carving, mosaic, etc., as portions of the Art Buildings.

The building devoted to Education and Social Economy is to be 400 feet wide and 600 feet long, and will cost $350,000. In this building an effort will be made to bring together, for comparative investigation, the educational systems of every country in the civilized world that is noted for educational progress. In social economy the exhibits will present from each country a complete survey of its natural resources, its industrial organization, and its social problems or efforts for improvement of existing conditions. The scheme includes the study and investigation of official and private bureaus and offices, museums, boards of trade, economic and social-reform associations, congresses, and literature relating to this and all scholastic instructions in business and social economy.

The Electricity Building will be in the Corinthian style of architecture, and is to be 500 feet long by 325 wide, and will cost $450,000. In the schedule all kinds of apparatus for generating and using electricity are included, and the development of the application of electricity to chemistry will be elaborately shown.

The indoor exhibits of Forestry and the Department of Fish and Game are to be housed in a single building with a frontage of 400 feet and a depth of 600 feet, costing $350,000. Forestry, its methods and products together with the products of foreign industries, including appliances for gathering wild crops or products of the soil, without culture, will be shown in this structure.

The Palace of Liberal Arts, in the classic French Renaissance style, will be 525 feet wide and 750 feet long, and will cost about $500,000. The subjects in this department include exhibits pertaining to printing and appliances; photography and kindred sciences; books, publications, and bookbinding; printed music; map and map-making; scientific apparatus; the theater and its equipment; science of chemistry; paper and its manufacture; civil and military engineering; sea warnings; gas, water, and sanitation, and the building of tenements.

The Machinery Building is to be 525 feet wide and 1,000 feet long, and is to cost $406,507. It will contain the power plant for the exposition, developing 10,000 horse-power and transferring 10,000 additional horse-power. The display will show motive power; transmission; machinery for making machinery; machines and systems for preventing and fighting fire; weighing machines; hydraulic machinery; tools and apparatus, and equipment illustrating the economics of machine-shop and factory practice. A boiler-house is to be built a few rods from the Machinery Building.

The Manufacturers Building will have a width of 525 feet and a length of 1,200 feet, and will cover approximately 14 acres. It fronts on the main avenue and in the center has a grand court, while over the entrance is a square tower 400 feet high. Colonnades, courts, andloggias are salient features of the architecture. The classification of the exhibits is by country or State and by color, in the form of large reproductions from nearly all the industrial arts and crafts.

The building devoted to mines and metallurgy will be in the Corinthian style of architecture, with facades of open columns and inner courts. The estimated cost is $5,000. In this building will be shown all kinds of equipment for use in the working of mines, ore beds, or stone-quarries, including tools, instruments, explosives, lighting apparatus, safety appliances, methods for handling products and for their above-surface transport, machinery for working purposes, apparatus for washing, devices for milling, equipment for the handling of solutions, mechanical appliances for shaping marble, granite, slate, and all building-stones, equipment for the handling of clays, and apparatus for compressing fuel.

The Textile Building will be 525 feet wide and 750 feet long, with a central court. Its estimated cost is $320,000. The exhibits form entire departments included under the general head of manufacture, although restricted to the special products indicated by the title.

The Transportation Building will cover 15 acres and will be 525 feet wide by 1,200 feet long, and will cost $700,000. The design of the building will indicate its purposes, the great arches at the ends and to the middle of the long facades simulating entrances for railway-trains. The floor plan provides 4 miles of tracks for railway displays, and ample space for marine transportation exhibits and displays of automobiles and road and farm vehicles of all kinds. Under the heading of transportation is included aerial navigation, which is to be made a prominent feature of the exposition.

The Varied Industries Building will be 525 feet wide by 1,200 feet long, with a central court. It is adjacent to the Manufacturers Building, and it has a tower 400 feet high, its purpose and methods together with the products of foreign industries, including appliances for gathering wild crops or products of the soil, without culture, will be shown in this structure.
Textile buildings is a natural amphitheater sloping to what will be a great basin. Down the slopes of the hill above the cascades will be a long curved architectural screen, with a beautiful Festival Hall, Museum and tent for 6,000 people, at the ends. Sculpture emblematic of 14 States and Territories will constitute an important decorative feature of the screen.

Of the seventy-nine buildings, the Government Building will be on the plateau, east of the Art Palaces, and will be 175 feet wide by 800 feet long. Its estimated cost is $450,000. The exhibits shown in it are under the supervision of a Government board, organized as follows: J. H. Bingham, Government Agriculture: chairman; William H. Michael, Department of State; Walter C. Hills, Treasury Department; J. B. Brownlow, Post-Office Department; Frank Strong, Department of Police; Edward M. Dawson, Department of the Interior; B. F. Peters, Army Department; John C. Schofield, War Department; J. W. Hanger, Bureau of Labor Statistics; W. de C. Ravenel, United States Fish Commissioner; Williams C. Fox, Bureau of American Republics; V. T. Cox, Secretary; W. M. Geddes, Disbursing Officer.

Immediately adjacent to this building will be the pavilion of the United States Fish Commission.

The office of administration will be housed in the building of the Washington University, which has been leased for that purpose. It is of Mission style and constructed of sandstone, and will cost $74,000.

In the extreme southwest corner of the grounds will be the department devoted to Physical Culture, which will include a gymnasium 185 feet long and 94 feet wide, to cost $150,000. The athletic field will be 750 feet long and contain one of the finest tracks in the world.

Among the other buildings of which information is available are: Hawaiian Building, in the form of a cross, being 90 feet each way on the axis lines; Missouri Building, to be a permanent fire-proof structure, to cost $300,000 and to be used as a museum after the exposition; Press Building, a modest but commodious structure that was dedicated on Oct. 25, 1902; Temple of Fraternity, an adaptation of the Parthenon of Athens, to cost $200,000, paid for with funds raised by the fraternal orders. The Burns Cottage Association will produce a replica of Burns' Ayrshire cottage and Stirling Castle. Acting under the authority of Congress, the United States Government Commission has appointed a board of 21 women managers, as follows: Miss Helen M. Gould, New York city, President; Mrs. James L. Blair, St. Louis, Mo., Vice-President; Mrs. Louise E. Frost, Winona, Minn.; Mrs. John A. McCall, New York city; Mrs. John M. Holcombe, Hartford, Conn.; Miss Anna L. Dawes, Pittsfield, Mass.; Mrs. Fannie L. Porter, Atlanta, Ga.; Mrs. Frederick Hanger, Little Rock, Ark.; Mrs. E. W. Andrews, Hastings, Neb.; Mrs. Helen Boie Hunsicker, Philadelphia, Pa.; Mrs. Emily W. Roebling, Trenton, N. J.; Mrs. Jennie Gilmore Knott, Louisville, Ky.; Mrs. Belle Everett, Atchison, Kans.; Mrs. William H. Coleman, Indianapolis, Ind.; Mrs. M. H. DeYoung, San Francisco, Calif.; Mrs. Margaret P. Daly, Anacanda, Mont.; Mrs. Finis P. Ernest, Denver, Col.; Mrs. E. V. Farley, Wicker, Springfield, Ohio; Mrs. Mary Phelps Montgomery, Portland, Ore.

Thirty-eight States and Territories have appointed or authorized their fair commissions, committees, or bureaus. These are: Alabama, Arizona, Arkansas, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, New Jersey, Iowa, Kansas, Louisiana, Kentucky, Maine, Maryland, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Philippine Islands, Porto Rico, South Carolina, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Also the following States have made appropriations of the amounts donated heretofore: Arizona, $30,000; California, $300,000; Colorado, $100,000; Delaware, $10,000; Idaho, $200,000; Illinois, $600,000; Indiana, $75,000; Iowa, $50,000; Maine, $40,000; Massachusetts, $75,000; Michigan, $100,000; Minnesota, $50,000; Missouri, $150,000; Montana, $50,000; Nebraska, $50,000; New Hampshire, $25,000; New Jersey, $50,000; New Mexico, $25,000; North Carolina, $25,000; North Dakota, $25,000; Ohio, $100,000; Pennsylvania, $300,000; Rhode Island, $25,000; Vermont, $15,000; Washington, $100,000; West Virginia, $40,000; Wisconsin, $65,000; Wyoming, $30,000; total, $2,095,000.

There will be, in connection with the exposition, a gathering of congresses, and it is expected that there will be meetings of the different trade unions. Efforts will be made to procure the meetings of the national conventions and associate conventions for the nominations of candidates for President and Vice-President.

Although nearly all the larger buildings are either completed or nearly so, it was found early in 1903 that the work was not proceeding properly for a world's fair, and it was therefore decided to have a formal dedication of the grounds and buildings with appropriate ceremonies on April 30, 1903, and to open the exposition a year later, April 30, 1904.

The usual amount of attractive advertising material has been distributed by the Exposition Company, and the World's Fair Bulletin, the first issue of which appeared in November, 1899, is published monthly in the interest of the Louisiana Purchase Exposition.

LUTHERANS. The statistics of the Lutheran Church in the United States and Canada, gathered and collated for the Lutheran Church Almanac, show a steady process in every department of church work. The Lutheran Church is one in faith, though, on account of its polity, duty very largely to diversity in languages used, it is divided into general and district organizations or synods. The Church, as this organization embraces 62 district synods, classified under 4 general bodies and 15 independent synods, all together having 7,090 ministers, 11,976 congregations, and 1,723,819 communicants. It has 4,478 parochial schools, with 3,170 teachers and 184,902 pupils, and 8,104 Sunday-schools, with 57,246 officers and teachers and 325,467 pupils. The benevolent contributions, exclusive of congregational and local expenses, amount to $1,252,466.26. The statistics of the several bodies are as follows:

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<tr>
<td><strong>Total</strong></td>
<td><strong>7,090</strong></td>
<td><strong>11,976</strong></td>
<td><strong>1,723,819</strong></td>
<td><strong>$1,252,466.26</strong></td>
</tr>
</tbody>
</table>

The educational institutions of the Church number 116, of which 23 are theological seminaries, with 905 students, 50 colleges with 8,333 stu-
dents, 32 academies with 2,982 students, and 11 secular schools for 4,855 students. These institutions have property valued at $5,971,642 and endowment amounting to $1,724,809, with 342,910 volumes in their libraries, employing 898 professors and instructors, who have under their instruction 15,755 students, of whom 2,612 have the ministry in view. Here, again, language differences supply the reason for the multiplicity of institutions, for the list includes English, German, Swedish, Norwegian, Danish, and Finnish colleges and seminaries.

The charitable institutions of the Church number 99, of which 43 are orphanages, 16 homes for the aged and needy, 19 hospitals, 11 immigrant and seamen's missions, and 8 are deaconess institutions. These have property valued at $4,113,827, and endowment amounting to $292,655, and care for 23,709 inmates.

The total money value of the property and endowment of the 215 educational and charitable institutions is $12,902,935. The endowment is an insignificant sum, amounting to not quite $2,000,000, and comparatively few have any endowment at all.

The General Council embraces 10 synods, 1,303 ministers, 361,048 communicant members. The membership of this general body consists of English, English-German, German, and Swedish congregations, with a small number of Finns and Slavonians. No convention of the general body was held in 1902, but the various mission, benevolent, and educational operations were carried on by boards of committees. The home missionary operations carried on by the General Board and the boards of the district synods received careful attention and number more than 600, with a membership of more than 30,000. The missions in Porto Rico and in East India have received special attention, the former receiving two additional missionaries and the latter 7. This more than doubles the missionary force in India,counting only those that have been sent from America, the entire force of workers being 160. Progress has been made in the erection of new buildings, in the establishment of the school for foreign students and the preparation of new courses and new departments in the various institutions.

The General Synod, the oldest general body in America, including the Southern Synod, mostly English, 1,231 ministers, 1,578 congregations, and 202,531 members. No convention of this body was held in 1902, but its various operations were carried on by boards of committees. Its home missionary operations are extensive and widely scattered in many of the States, and its mission in India is in a flourishing condition, with a college having more than 700 students.

The Synodical Conference.—This general body, organized in 1872 and embracing 3 district synods, 2,129 ministers, 2,772 congregations, and 569,951 members, almost exclusively German, hold its fourteenth biennial convention in St. John's German Church, Milwaukee, Wis., beginning July 23, 1902. Seventy delegates were present, representing the Synod of Missouri, Ohio, and other States; the General Synod of Wisconsin, Minnesota, and Michigan; and the English Synod of Missouri and other States. The following officers were elected: The Rev. John Bading, Milwaukee, Wis., president; Rev. Philip Brand, Pittsburg, Pa., vice-president; the Rev. Prof. John Schaller, New Ulm, Minn., secretary; Rev. A. A. Andersen, New Ulm, Minn., assistant secretary; and Mr. H. A. Christiansen, Detroit, Mich., treasurer. The Norwegian Synod, numbering 340 ministers, 850 congregations, and 76,370 members, though not a member of this general body, was represented. It was warmly welcomed by the president. In response, the Rev. O. P. Vangness, of Story City, Iowa, emphasized the unity of spirit and friendly relations existing between his synod and the synodical conference. As the Norwegian Synod expects to celebrate the fiftieth anniversary of its organization in 1903, a committee, representing the synods in connection with the general body then in session, was elected to attend the anniversary convention. The request of the English Synod that the general body should cooperate in their work of carrying on English missions met with favorable action to the extent that those synods that have not yet created a fund for English missions were advised to do so. The necessity of prosecuting the English work was emphasized by various speakers. The request for a standard text of Luther's Small Catechism and explanation was referred to a committee with instructions to report at the next convention. The committee was also instructed to report on the question of liturgical uniformity in English congregations within the bounds of the general body, including the congregations connected with the Norwegian Synod, which body is to be represented in this work. The committee appointed at a former convention to revise the translation of Luther's Small Catechism reported additional changes in the proof-text already issued. It was resolved to publish the amended text with editorial notes on the changes suggested, and to take final action on the best form of convention by conference. The doctrinal treatise prepared by Prof. E. A. W. Krauss, director of the seminary at Addison, Ill., on the subject of alleged contradictions in the Bible was carefully and thoroughly discussed. A full report of the missionary operations among the negroes of the South was presented and ample time was given to its consideration, much interest being manifested in this difficult, but growing work. The receipts from all sources during the past two years amounted to $36,088.97. Additional workers are to be placed in the field, and one, or perhaps two, preparatory schools for negro students are to be established. This body also carries on missionary operations in East India and in Brazil and other South American countries, the details of these operations are not accessible. The next convention will be held in Winona, Minn., in 1904.

The United Synod, South.—This general body, organized in 1886 and consisting of 215 ministers, 433 congregations, and 41,765 members, almost exclusively English, held its eighth biennial convention in St. John's English Church, Charleston, S. C., beginning May 7, 1902. When the convention was formally opened, the president presented his report, in which he gave an account of work done, and presented a wide field of pressing work to be done in home and foreign missions, education, work among the orphans, and other benevolent operations. The following officers were elected: The Rev. Robert A. Yoder, D. D., Newton, N. C., president; the Rev. Andrew G. Voigt, D. D., Wilmington, N. C., vice-president; the Rev. Samuel T. Hollman, D. D., Newberry, S. C., secretary, and Charles Dula, Esq., Charlotte, N. C., treasurer.

The mission in Japan is in a prosperous condition, having several native pastors on the ground. Addresses were delivered on an earnest prosecution of the work. Home missionary operations occupied the earnest attention of the convention. The ery comes from the West
and Southwest for missionaries, in order that congregations may be organized among the scattered Lutherans. A plan was referred to the Board of Missions to place a traveling missionary in Mississippi. The general body signified its willingness and readiness to cooperate with the Northern bodies in the effort to develop the immense territory bordering on the Gulf, into which thousands of Lutherans are pouring from all sections of the country. The most encouraging feature of the convention was the announcement of the success in the effort to raise $30,000 toward the endowment of the theological seminary at Mount Pleasant, S. C., thus enabling the institution to secure the service of an additional professor. The Sunday-school question received careful attention, and the work was referred to a permanent committee. One of the unique features of the convention was the attendance of a group of Eskimo Lutherans who superintended an exhibit at the Chicago Exposition. The next convention of this body will be held in Newmarket, Va., in 1904.

The Norwegians in the United States are organized into 46 societies, and have 48 independent synods, numbering altogether 921 ministers, 2,701 congregations, and 277,826 members. Of these, the United Norwegian Church is the most active and is the center of the convention. The annual convention of this synod was held in Minneapolis, Minn., June 18–26, 1902. The convention was attended by more than 700 clerical and lay delegates. The recent death of the deceased G. H. Hoyne, president of the United Church, whose familiar figure had been so prominent at every previous meeting, caused a spirit of deep sadness to pervade the gathering. The following officers were elected: The Rev. T. H. Dahl, Stoughton, Wis., president; the Rev. Nils J. Ellestad, Norway, Minn., vice-president; the Rev. Jens C. Roseland, Austin, Minn., secretary; and Hon. Lars Swenson, Minneapolis, Minn., treasurer. President Dahl, who was acting president during the Rev. Mr. Hoyne's sickness, presented a very interesting and encouraging report, especially of the English work. He called attention to the fact that those ministers who are without parishes would more readily receive calls if they could use the English language. He emphasized the necessity for more English-speaking graduates from the theological seminary, and recommended the election of an additional English Professor of Theology. He declared that the degree of this institution has become one of life or death among the Norwegians in America. This convention of the United Church marked the culmination of a great and successful effort to erect buildings for its theological seminary at St. Paul, Minn., and for its college at Northfield, Minn. During the two years preceding this convention the United Church collected and paid $173,311.26 for these two institutions. On June 15, 1901, the large new college building at Northfield was dedicated, and on June 22, 1902, the new building for the theological seminary was dedicated free of debt. It is in St. Anthony Park, St. Paul, Minn., and the cost more than $80,000. The building has accommodations for 100 students, with lecture-rooms, chapel, fire-proof library, hospital rooms, dining-room, and kitchen. The land upon which its site of 9 wooded acres is worth $100,000. The individual contributions toward this object were in many instances exceedingly small, but they came from all parts of the territory. At Westfield, a beautiful library building was erected at Northfield at an expense of $13,000, the gift of Mr. Halle Steensland, Norwegian-Swedish consul at Madison, Wis., and chairman of the United Church Board of Trustees. The synod also took steps at this convention toward the erection of a chapel at the college at Northfield as a memorial to the late president, G. H. Hoyne, which is to cost $20,000. Steps were also taken toward gaining control of all the academies now connected with the synod, and arranging their courses of study with reference to the synodical college at Northfield.

Icelander.—The Icelandic Evangelical Lutheran Synod of North America held its eighteenth annual convention in the Icelandic Lutheran Church at Gardar, N. Dak., June 21–26, 1902. Gardar is a small settlement 7 miles north of Edinburg, and is thus described by the Rev. Alfred Bergin, representative of the General Council to this convention: "The settlement consists of people who call Iceland their native home. In the township of Gardar nearly every one hall from the little island in the Arctic Ocean. Every one belongs to the Icelandic Church of Gardar, of which the Rev. Frederick J. Bergman is pastor. Two stores, several residences, a town hall, a schoolhouse, and near it a beautiful church, make the center of a prosperous mission station. The country round is very beautiful, lying among the groves and along the bubbling brooks on the slopes of the so-called Pembina mountains, and among which the thrills annual convention of this synod was held in Minneapolis, Minn., June 18–26, 1902. The convention was attended by more than 700 clerical and lay delegates. The recent death of the deceased G. H. Hoyne, president of the United Church, whose familiar figure had been so prominent at every previous meeting, caused a spirit of deep sadness to pervade the gathering. The following officers were elected: The Rev. T. H. Dahl, Stoughton, Wis., president; the Rev. Nils J. Ellestad, Norway, Minn., vice-president; the Rev. Jens C. Roseland, Austin, Minn., secretary; and Hon. Lars Swenson, Minneapolis, Minn., treasurer. President Dahl, who was acting president during the Rev. Mr. Hoyne's sickness, presented a very interesting and encouraging report, especially of the English work. He called attention to the fact that those ministers who are without parishes would more readily receive calls if they could use the English language. He emphasized the necessity for more English-speaking graduates from the theological seminary, and recommended the election of an additional English Professor of Theology. He declared that the degree of this institution has become one of life or death among the Norwegians in America. This convention of the United Church marked the culmination of a great and successful effort to erect buildings for its theological seminary at St. Paul, Minn., and for its college at Northfield, Minn. During the two years preceding this convention the United Church collected and paid $173,311.26 for these two institutions. On June 15, 1901, the large new college building at Northfield was dedicated, and on June 22, 1902, the new building for the theological seminary was dedicated free of debt. It is in St. Anthony Park, St. Paul, Minn., and the cost more than $80,000. The building has accommodations for 100 students, with lecture-rooms, chapel, fire-proof library, hospital rooms, dining-room, and kitchen. The land upon which its site of 9 wooded acres is worth $100,000. The individual contributions toward this object were in many instances exceedingly small, but they came from all parts of the territory. At Westfield, a beautiful library building was erected at Northfield at an expense of $13,000, the gift of Mr. Halle Steensland, Norwegian-Swedish consul at Madison, Wis., and chairman of the United Church Board of Trustees. The synod also took steps at this convention toward the erection of a chapel at the college at Northfield as a memorial to the late president, G. H. Hoyne, which is to cost $20,000. Steps were also taken toward gaining control of all the academies now connected with the synod, and arranging their courses of study with reference to the synodical college at Northfield.

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The subject discussed was What are the duties imposed by the Christian faith and congregational rules by the baptism of children? The General Council was represented at this convention by the Rev. Gottlieb C. Berkeremeier, D.D., of Mount Vernon, N. Y. The next meeting will be held at Waverly, Iowa, in 1905.

General Lutheran Conference.—The second general conference of Lutherans in North America was held in Philadelphia, Pa., April 1-3, 1902. Representatives in large numbers were present from the General Council, General Synod, and United Synod of the South, and numerous topics bearing on the doctrines, worship, and life of the Church were discussed. The opening address was delivered by the Rev. Prof. Henry E. Jacobs, D.D., LL.D., dean of the theological seminary at Mount Airy, Philadelphia, who called attention to the fact that while the center of the Lutheran population is west of Chicago, the people of the three general bodies represented in the conference are massed mainly near the Atlantic coast, the original home of the early Lutheran settlers in this country. The following subjects were presented in carefully prepared papers, and discussed by the constituents: The Witness of Faith, by the Rev. L. G. M. Miller, D.D., Roanoke, Va.; The Doctrine of Justification in its Relations, the Rev. Prof. J. W. Richard, D.D., Gettysburg, Pa.; The Religion of the Young at the Discovery of the Congregation, the Rev. C. Armand Miller, New York City; The Place of the Holy Spirit in Lutheran Theology, the Rev. Jason C. Moser, D.D., Hickory, N. C.; The Doctrine of the Sacraments, the Rev. L. E. Bushy, D.D., Salisbury, N. C.; Christian Liberty and its Limitations, the Rev. Prof. Stephen A. Repass, D.D., Allentown, Pa.; The Historical Deaconess Work and American Conditions, the Rev. Gottlieb C. Berkeremeier, D.D., Mount Vernon, N. Y.; Parochial Schools in Relation to our Congregations, the Rev. George C. F. Haas, D.D., New York City; Native Ministry for Congregations in Foreign Fields, the Rev. J. H. Harpert, D.D., Guntur, East India; Women as Helpers in the Practical Work of the Church, the Rev. J. P. Kretzschning, D.D., New Germantown, N. J.; The Spiritual Priesthood of Believers, the Rev. John A. Hall, D.D., Canton, Ohio; Are our Present Methods of Sunday-School Work Adequate? the Rev. David H. Gessinger, D.D., Pittsburg, Pa., and the Rev. Prof. J. A. Singleton, D.D., Gettysburg, Pa.; The Attitude of the Lutheran Church toward Current Discussions concerning the Holy Scriptures, the Rev. F. H. Knobel, New York City; Problems of Church Polity, the Rev. Prof. Jacob Fry, D.D., Philadelphia; The Definition of Luther, the Rev. J. J. Young, D.D., New York City.

Luther League of America.—This association of young people of the Lutheran Church held its fifth national convention in St. Paul and Minneapolis, Minn., July 8-10, 1902. Representatives of all the Synods were present. The officers of the society are: William C. Stoecker, Esq., Philadelphia, Pa., president; C. G. Grauer, Buffalo, N. Y., recording secretary; the Rev. Charles S. Hunton, Columbus, Ohio, statistical secretary; the Revs. Charles L. Fry, Philadelphia, Pa., and George H. Schnur, Chillicothe, Ohio, literary secretaries; and Mr. John F. Dinkel, Rochester, N. Y., treasurer. The first session of the convention was held in the First Swedish Church of St. Paul, which is also the oldest Lutheran church in that city. The business of the convention were held in the English Memorial Church, beginning on Wednesday, July 9, 1902. Among the reports presented was that of the statistical secretary, the Rev. Charles K. Hunton, of Columbus, Ohio, which estimated the membership of the league at 34,305, although a large number of leagues had not reported. A conservative estimate places the total membership at 70,000. A large part of the time of the convention was devoted to the discussion of papers read. The topic of the convention was Praying and Working; Working and Praying, and this theme was chiefly considered in all the papers and addresses. The first paper was by the Rev. John E. Whittaker, D.D., of Lancaster, Pa., on Working and Praying must be Joined. The second paper was by Miss Josephine Maedel, of Kansas City, Mo., on Power and Prayer. Other papers followed bearing on different phases of the general subject, as Prayer without Work; Work without Prayer; Praying and Working — the Forces Moving the World. The interest of the convention was enhanced by the presence of Miss Ellen M. Stone, lately released from captivity among the brigands of Bulgaria, who spoke of her experience and release from captivity as a wonderful result of the power of prayer. According to its usual custom, the convention held a grand rally meeting in the large auditorium, which comfortably held the 2,500 persons present. A special feature of this meeting was the Lutheran Church Chorus of 200 voices, under the direction of the Rev. Peter Johnson of the First Swedish Church of St. Paul. Among the selections rendered by this chorus was Luther's great battle hymn — A Mighty Fortress is our God.

The most conspicuous event of 1902 in the history of the Lutheran League of America, as reported by the Rev. Charles L. Fry, of Philadelphia, is the election of its first general secretary, who is to devote his entire time to the furtherance of the league's work and have general oversight of its affairs. The election was held in Philadelphia on Nov. 15, 1902, and resulted in the unanimous choice of the Rev. Luther M. Kuhn, of Omaha, Neb. The major part of his support was generously tendered by the Lutheran League Review, a monthly publication of the Lutheran Church Polity, the Rev. Prof. Jacob Fry, D.D., Philadelphia; The Defamers of Luther, the Rev. J. J. Young, D.D., New York city.

Lutheran Liturgical Association.—This association was organized at Pittsburg, Pa., Oct. 3, 1868. Its officers are: The Rev. Luther D. Reed, Allegheny, Pa., president; the Rev. Prof. Elmer F. Krause, Chicago, vice-president; the Rev. R. W. Morris Smith, Baden, Pa., secretary and treasurer; and the Rev. Prof. George J. Ongard, Greensburg, Pa., archivist. Its membership consists of clergy and men in all parts of the Lutheran Church who are interested in promoting beauty, correctness, and a desirable uniformity in the external life of the Church.
MADAGASCAR.

MADAGASCAR, an island colony of France, near the southeast coast of Africa, formerly a kingdom, proclaimed a French protectorate in 1885 and declared a colony on Aug. 6, 1896. The colony is administered by a Governor-General, Major-Gen. Gallieni. The area of the island is estimated at 227,750 square miles, including the small islands of Nosy Be, St. Mary, and Les Iles Glorieuses. The population at the end of 1900 was 2,244,872, composed of 2,242,443 natives, 488 Asians and Africans, 1,183 French, 374 English, 33 Germans, and 341 other Europeans. In 1901 there arrived 157 French immigrants, against 122 in 1900. The civilian officials number 700. Slavery was abolished in 1896, and forced labor on public works in 1901, when the personal tax was increased from 5 to 10, 15, or 20 francs and in the capital to 30 francs. Antananarivo, the capital, formerly the seat of the Hova dynasty, has about 50,000 inhabitants. The Hovas, who ruled the island before the French conquest, are a Malayan people who were partly civilized, and the majority nominally converted to Christianity. They number about 850,000. The Christian population in 1895 was estimated at 450,000 Protestants and 50,000 Catholics. A large proportion of the Protestants have since become Catholics. The French have organized a system of public schools wherever their actual jurisdiction extends unless mission schools were already in existence. The ordinary revenue in the fiscal year 1900-1901 was 19,400,000 francs, and expenditure 17,100,000 francs. The French Government gives a subvention of 700,000 francs, but the expenditure of France in 1902 was 31,349,032 francs in excess of this. The old Malagasy debt was converted in 1885, and a loan of 60,000,000 francs has been raised for public works. The cost of the garrison in 1902 was 12,142,120 francs. There were 50 French officers, 8,763 French troops, and 8,235 native and African troops. The value of imports in 1900 was 30,885,897 francs; of exports, 10,623,810 francs, including 3,600,000 francs for gold and gold-dust, 2,025,000 francs for raffia, 1,825,000 francs for coffee, 1,150,000 francs for cattle, 500,000 francs for hides, 500,000 francs for wax, and 225,000 francs for vanilla. The principal imports are textiles, beverages, flour and meal, and metal goods. Three French steamship lines run to the port of Tamatave, on the east coast, which has a population of 15,000. The number of vessels entered and cleared at all ports during 1900 was 12,823, of 2,018,931 tons, of which 1,823,136 tons were French. The chief occupations are cattle-raising and agriculture. Rice, manioc, sugar, coffee, cotton, tobacco, and vanilla. The sweet potatoes are the principal cultivated products. In the forests are obtained rubber and many valuable woods. The forests are preserved by law. French settlers receive farms of 100 hectares free, and the same amount of land can be obtained by foreigners at a fixed price. The natives weave cotton, and are skilful workers of metals. Gold is found in many districts, and copper, galena, sulfur, graphite, and lignite exist in extensive deposits, but are not mined on a large scale. Recent concessions, covering 1,425,000 acres in 1900. Many Boers during and after the South African War went to Madagascar, and some of them acquired land for permanent settlement. Roads have been built by the French, who expended 3,125,405 francs for the purpose in 1899. The lagoons on the east coast are being connected by canals. There are 2,610 miles of connected telegraph-lines. The railroad from Tamatave to Ivondro connects with the canal, and from Jaroka, another point on the lagoons, a railroad is being built to Antananarivo, situated on the interior plateau. The western port of Mojanga has been improved and in 1902 exported 6,000 cattle. In 1901 prospectors for gold located 322 new claims, but only 60 placers were worked. The quantity of gold exported in 1900 was 1,114 kilograms; in 1901, 1,045 kilogram. Diego Suarez, where a French colony was established in 1886, has been converted into a first-class naval and military port. French enterprises and settlements are most numerous in this northern part of the island, and here several Boer families of French descent have located farms. W. I. Handlery, in the formation of the road from Antananarivo to the series of coast lagoons and canals the system of human porterage began to give place to transport in carts, drawn at first by men, who are being replaced by mules and oxen.

MANITOBA.

MANITOBA, a province of the Dominion of Canada; area, 73,586 square miles; population in 1901, 254,957. Capital, Winnipeg.

Government and Politics.—The Government of Mr. Roblin remained unchanged during the year, and also kept its place as the only one of the provincial governments of Canada that was purely Conservative. The executive council is composed of R. P. Roblin, Premier, President of the Council, and Commissioner of Immigration and Railways; J. A. Davidson, Treasurer and Commissioner of the Province; L. Taylor; D. H. Macdonald, Provincial Secretary and Municipal Commissioner; C. H. Campbell, Attorney-General and Minister of Education; Robert Rogers, Minister of Public Works. The Legislative Assembly was made up of 26 Conservatives and 13 Liberals, under the leadership of T. Greenway, and 1 Independent, with W. Hespeler as Speaker. The session was opened on June 15, 1902, with a speech from the throne, of which the following are the significant portions:
The abundant harvest vouchsafed by Providence has been a source of great prosperity to the province. The Northern Railway Company have completed their line to Port Arthur. The much-needed consolidation of the statutes is being proceeded with by the commissioners, and will, it is expected, be completed within the year.

I regret to say that the Federal Government has, notwithstanding the strenuous exertions of my Government, as yet failed to pay over to the province the accumulated interest upon the school moneys and the interest derived from the sales of school lands. You will be asked to take measures to convince the Federal authorities that the just demands of Manitoba in this respect should not be any longer disregarded. In consequence of the existing situation, it may be necessary to introduce legislation dealing with the moneys now paid to schools and to amend the school act. The Federal Government has, to the surprise and regret of my advisers, disallowed the real property act passed by this Assembly. This act was so obviously beneficial that it has been decided to reintroduce it, in the expectation that a measure purely provincial, and within the province's power, will be passed.

The House was prorogued on March 1 by the Lieutenant-Governor, who assented to several enactments, in the King's name, of which the following were the most important:

Respecting real property in the province of Manitoba.
Respecting Mennonite village agreements.

To make an act respecting the bills in violation of the real property act.

To amend the bills of sale and chattel mortgage act.

To provide for a charter for the city of Winnipeg.

To amend the assessment act.

To amend the corporations taxation act.

Respecting certain guaranteed bonds of the Canadian Northern Railway Company.

To amend the Manitoba interpretation act.

To amend the Manitoba trustee act.

To amend the public schools act.

The budget speech of the Hon. Mr. Davidson was delivered on Feb. 4, 1902. He first dealt with the assets of the province, including $3,575,941 in Dominion Government capital accruing, $1,186,383, and $1,292,598, which the Federal authorities had not yet admitted as due to them by the province; $99,259 advances by the province to municipalities; $850,104, the value of public buildings owned by the province; 7,700,000 acres of provincial lands at $3 an acre, $23,100,000; $41,005 drainage districts interest account; and $145,903 cash on hand. The liabilities consisted of provincial debentures valued at $4,040,013, and, deducting this from the total assets of $28,310,128, left a surplus of direct assets over direct liabilities of $24,060,115. He pointed out that there were also indirect assets and liabilities that balanced each other and were made up of guarantees on bonds of the Southwestern Colonization and Canadian Northern Railways and drainage district debentures. The ordinary receipts of the year were $371,196, and the expenditure for matters over which the Government had control was placed at $394,751.

The budgeter would only $4,550 on loan of the preceding year had been put. The expenditures in this connection included $28,146.14 upon the Greenway Government deficit; $54,812 on public buildings; $17,772 on railway bonuses; $7,775 given to Souris Branch Railway; $1,966 land refunds; $7,417 interest on Emerson and Minidoka loans; $32,420 on drainage debenture interest; $52,875 on land mortgages; $31,276 on seed-grain loans; and $21,636 on land surveys—a total of $442,310. This, he explained, is decreased by receipts on ledger accounts—such as school debentures, seed-grain loans, creamery loans, and other items—to the amount of $27,717.91, leaving a total expenditure of $414,592.97. This leaves $85,407.03 of the loan unaccounted for. The surplus last year was $1,031.34; this year, $49,444.73. The total of these three items is $145,903.10, which is the cash on hand.

According to the public accounts the total expenditure of the province for the year ending Dec. 31, 1901—less certain items in open ledger and trust accounts—was $898,250.

The estimates for 1902 were presented to the Assembly by Mr. Davidson on Feb. 4. The total proposed expenditures were $1,288,868, and the total revenue was placed at $1,534,613. The estimated revenue included a Dominion subsidy of $557,513; interest on school lands' fund, $40,000; fees from land titles of $90,000; interest, $38,000; from provincial lands, $20,000; from lunatic asylums, $48,000; succession duties, $10,000; insurance act, $32,000; railway tax, $100,000.

Prohibition.—This question went through a new and important phase in 1902. The liquor act passed by the Macdonald Government in 1900, as a result of strong pressure at the polls and of a plebiscite in favor of prohibition two years before, which had recorded 12,270 votes for and 2,974 against, was now submitted to a new referendum. The act, which practically prohibited the sale of liquor in the province, had been declared constitutional by the Judicial Committee in London; but instead of putting it in force by proclamation, the Government decided that conditions had changed, and that the 49,304 votes on the rolls which had not been polled for or against the policy should be considered. It was therefore decided to refer to the people the whole question of putting the law into force. The conditions of the vote were complicated. If 45 per cent. of the registered electors voted "Yes," then the law should take effect. Again, if 60 per cent. of those on the lists voted, and if 60 per cent. of those voting declared themselves in the affirmative, the act should become effective. But if fewer than 60 per cent. of the entire electorate voted, then the proportion required might be raised to 68 per cent. of those voting, according as the total fell below 60 per cent.

By this arrangement, 36 per cent. of the registered votes would be entitled to enact prohibition. The result of this policy was a species of chaos in the temperance ranks. The Manitoba branch of the Dominion Alliance met on June 16 and passed resolutions, by a nominally unanimous vote, expressing non-confidence in the sincerity of the Government and its desire to enforce the liquor act, and advising Prohibitionists not to vote.

W. Redford Mulock, K. C., took a prominent part in arguing the unconstitutionality of the referendum. The resolutions were promptly presented to the Government, and in reply the Prelate-General, after careful consideration. In the Legislature the Government policy was discussed at length, chiefly in connection with the second reading of the referendum bill on Feb. 5.

The Attorney-General, in moving the measure, had explained its nature, its limitations, and the reasons for its enactment. Mr. Greenway, the
Opposition leader, declared himself to be the first prominent politician in the province to promise the Prohibitionists (in 1899) all they asked, and the first also to be turned down because of that position. The whole thing was a party question. He personally intended to go out and vote in favor of the enforcement of the act. Would the temperance people, for chagrin or vengeance, allow him to go out. Canada and the flax, area in the world that they did not want their own act?

The Premier's personal opinion of the liquor act of 1900 was expressed in a letter which was made public: "It is no prohibition bill whatever; it is simply a bill providing for free whisky without any control by the Government, which any man in the province can get at any hour and in all quantities that he desires. That being the fact, I do not think the indorsement or otherwise of the act is justification for classing a man a Prohibitionist or otherwise."

Meanwhile, the Dominion Alliance, on Dec. 26, 1901, had petitioned the Governor-General and the Lieutenant-Governor, asking them to dissallow the act on the ground that the reference to the sweating of representatives of responsible and responsible government and injurious to the dignity and prerogative of the Crown, if not "ultra vires of the British North American Act."

The Hon. Mr. McCadden, in a report to the Lieutenant-Governor on March 27, mentioned the fact of the measure's passing unanimously, and concluded that the questions involved were questions for constitutional rights of the province. On April 2, 1902, the vote was taken, and it resulted in the distinct defeat of the measure. The official statement of May 5 showed 73,987 entitled to vote, 38,071 actually voting, 23,444 voting against the act, and 15,007 for it.

Agriculture.—The prosperity of the province, as shown in its agricultural production of 1901 and 1902, was phenomenal. In the former year its farmers sold 50,502,985 bushels of wheat at $25.251,442; 27,796,688 bushels of oats, $7,005,078; 6,356,153 bushels of barley, $2.267.304; 296,429 bushels of flax, $319,704; 62,261 bushels of rye, $24,904; 16,349 bushels of peas, $9,890; 4,797,433 bushels of potatoes, $1,199,358; 2,925,002 bushels of beans, $365,523; and 2,295,529 pounds of potatoes, $837,904; 1,039,392 pounds of cheese, $864,384; poultry and eggs, $250,000; cattle (44,500), $1,029,000; hogs (25,000), $250,000—a total of $39,368,051.

The report going to an inquiry at Winnepeg on Dec. 12, 1901, the area under wheat had been 2,011,335 acres; the average yield per acre was 25 bushels. Under oats there was an area of 683,561 acres, with an average yield of 40 bushels. Under barley the area was 101,009 acres, with an average yield of 34 bushels. In flax, rye, and peas the total production was 345,030 bushels and the acreage 24,564. The total grain-crop of the province with its 35,000 farmers was 83,179,588 bushels. In potatoes there was an acreage of 24,249 and an average yield of 196 bushels per acre. This year the area under crop was 10,214 acres and the average yield 286 bushels. In 1901 the farmers of the province sold 77,200 turkeys, 33,940 geese, and 306,363 chickens. They erected new buildings to the value of $1,434,880, and broke in 149,305 acres of new land for the crop of 1902.

Dairying was described in the bulletin as steadily increasing. The number of dairy farms had increased from 28 creameries and 37 cheese factories in the province. Of provincial lands available for sale at prices ranging from $2.50 to $6.50 an acre, there were in the beginning of 1902 about 2,000,000 acres.

The final bulletin for the year of the provincial government was issued on Dec. 6, and gave the following statistics: Wheat area in crop, 2,039,940 acres; average yield, 26 bushels; total yield, 53,077,287 bushels. Oats, area in crop, 725,060 acres; average yield, 47.5 bushels; total yield, 34,478,160 bushels. Barley, area in crop, 329,790 acres; average yield, 35.9 bushels; total yield, 11,848,422 bushels. Flax, area in crop, 41,290 acres; average yield, 13.7 bushels; total yield, 504,440 bushels. Rye, area in crop, 2,559 acres; average yield, 19.3 bushels; total yield, 49,900 bushels. Peas, area in crop, 1,590 acres; average yield, 21.4 bushels; total yield, 34,154 bushels. Potatoes, acres, 22,006; bushels, 150; total bushels, 3,492,325. Roots, acres, 12,175; bushels, 205; total yield, 3,240,985 bushels. The total grain-crop of the province was 100,052,343 bushels. The poultry disposed of by farmers included turkeys, 53,905; geese, 34,270; chickens, 363,020. The land prepared for the crop of 1903 included breaking, 161,305 acres; fallowing, 585,730 acres; fall plowing, 1,015,870 acres. The total area prepared for the crop of 1903 was 1,730,995 acres.

Provincial Lands.—The subject was much discussed in connection with the claims of the Northwest Territories for provincial status and the consequent possibility of fixing boundary lines. The disagreement on the subject was presented by the Premier on Feb. 28, 1902, and unanimously passed. It declares:

"(1) That this House is of the opinion that it is desirable, both as a vested interest and for the welfare of the province of Manitoba and the Northwest Territories, that the area of the former should be increased by an extension of boundary lines so as to embrace and include a portion of the districts of Assinboia and Saskatchewan, and northward to Hudson Bay. (2) That a committee consisting of such members of this House as comprise the Executive and Messrs. Greenway, Mickle, and Burrows be appointed to make all due inquiries into all and singular the best means of bringing about the said object, and to ascertain the most favorable terms and conditions upon which the boundaries of the province may be so extended."

The Grain Act.—A measure passed the Parliament of Canada that the price of wheat and its second reading in the Commons on May 7, dealing with important regulations regarding warehouses and station platforms, etc. It varied little in its final form from the bill passed by the House of Commons. Mr. Sifton after consultation with the western Liberal members. The measure provided that buyers must receive all six standard grades; this was designed to meet a difficulty that farmers met with at a few points last season, when buyers refused to make room for the best grades of wheat. As to flat warehouses, there could be as many at any station as the commissioner thought necessary, and the railways would be obliged to furnish locations on a siding for all approved by the commissioner. Railways must within thirty days erect a suitable loading platform at any station, upon a petition from 10 farmers resident within 20 miles; there was to be no charge for the use of such loading platform; and where there was no loading platform the railways were to furnish cars for direct loading.

Provincial Lands.—On Feb. 4, 1902, the report of the department showed land sales of $150,280; deferred given of 29 creameries and 37 cheese factories in the province. Of provincial lands available for sale at prices ranging from $2.50 to $6.50 an acre, there were in the beginning of 1902 about 2,000,000 acres. The prices ranged from $2 to $8 and averaged $2.90 an acre. There was an in-
crease over 1900 of 91,930 acres sold, and the average price was 10 cents an acre greater. The total area of land acquired by the province was stated at 90, 63,881; the number of acres, 281,567, and 291,297 acres had been sold.

Public Works.—Mr. Rogers reported on Jan. 30 to the effect that the Municipal Councils were rapidly learning the value of proper road work. Colonization roads had been built into several districts not supplied by railways. A road had been built for this purpose to Edrass, south of Arden. An outlet had been given the settlers in Gimli district, the Fairford road had been improved, a road was built near Whittemouse, and one was started that would run from Vassar to Pine River. The only bridges of importance completed during the year were at Portage la Prairie over the Assiniboine and at Rapid City over the Little Saskatchewan. Grants were made, to the amount of $50,000, to assist in building bridges in other parts of the province. A great deal of work had been done in constructing drains. The Government had not only given financial aid to municipalities for the purpose, but placed the services of engineers at the disposal of authorities.

Education.—The school population of Manitoba in 1901 was 195,929. All of pupils registered was 51,888; the average attendance was 27,550; the number of teachers was 1,699, of whom 618 were men and 1,051 were women. According to report for the year ending Dec. 31, 1901, the total receipts were $1,310, 895, against $1,229,578 in 1900, and including $13,451 from legislative grant and $653,359 from municipalities. The total expenses were $1,272, 616, including $92,323 for teachers' salaries; $149,987 for buildings, furnishings, etc.; $35,415 for fuel; $30,834 for repairs, etc.; and $15,713 for salaries to officials. The assets were given as $2,440,804—taxes due and value of school properties. The liabilities, chiefly debentures, were $1,155,420. The organized school districts numbered 1,296, and 1,064 were in operation. In 283 schools religious exercises were used in closing, in 169 the Bible was used, in 879 temperance instruction was given, in 925 moral instruction was given, at 424 the Ten Commandments were taught. During the legislative session two important measures were introduced and passed by the Government dealing with Galician education and the establishment of school districts.

Railways.—Railway facilities in the province were considerably expanded in 1902. Early in 1901 negotiations were concluded between the Government, the Northern Pacific and Manitoba Railway Company, and the Canadian Northern Railway Company for the control and operation, under secure conditions, of the system of the former company in Manitoba. The arrangement concluded was, briefly, the leasing by the Government of Manitoba for nine hundred and ninety-nine years of all the branch lines of railway in the Northern Pacific and Manitoba in consideration of the payment of the following rentals, namely: For the first ten years, $210,000 a year; for the second ten years, $225,000 a year; for the third ten years, $275,000 a year; and for the rest of the term, $300,000 a year; and, in turn, the assignment of the lease by the Government, upon regular terms and conditions, to the Canadian Northern Company. The actual mileage of railway owned by the Northern Pacific and Manitoba Railway Company was 354.65. Contemporaneous with the acquisition of the lines, the Canadian Northern Railway Company in the province of Manitoba, the Government, by agreement bearing date Feb. 11, 1901, confirmed by act of the Legislature on March 20 of the same year, contracted to and with the Canadian Northern Railway Company, to aid that company by guaranteeing its bonds at the rate of $20,000 a mile for a line of railway, estimated at 290 miles, extending from Port Arthur to, and connecting with, the lines of the company already constructed and opened for through traffic between Port Arthur and Winnipeg, or on before Oct. 1, 1901, unless unforeseen difficulties should arise through inability to secure men and materials. At the request of the company, the time for completion of the works was extended to Dec. 31, 1901. The Premier was able to announce in January, 1902, that the company had practically completed their contract on the latter date, thereby giving to the people of the province of Manitoba, under most favorable and advantageous terms and conditions, an independent line of railway to the head waters of Lake Superior.

The mileage of the Canadian Northern Railway, in and outside the province, with respect to which a guarantee liability on the part of the province exists—when the whole system is completed—is 979 miles. The extent of the liability under guarantee bond is $75,000.

The total amount of cash aid given by the province toward the construction of railways in Manitoba, at the close of 1901, was $971,565, covering 546 miles. The Premier promised a way of paying an interest on the $75,000 promised the Canadian Pacific Railway for the Forrest and other extensions.

The direct liability of the province, at the close of the year, with respect to the Manitoba and Northwestern Railway, was approximately $75,726, to cover which, with the interest to accrue until the maturity of the debentures, the province held as security $42,600 acres of land in the Northwest Territories.

The Doukhobors.—The main body of this sect, about 15,000 in number, occupies the high plateaus of Transcaucasia, in Russia. Here, where the rigors of the climate will not permit the mowing of ordinary crops, are great natural meadows, and cattle-raising is almost the sole industry. The inhabitants live largely on the produce of the land, which is not farmed. The year hundreds of animals are broken to the yoke, and one of their chief sources of wealth is the carrying of freight in their ox-wagons over the rough mountain roads to the southern districts. A society called the Doukhobors was founded in central Russia in the early part of the eighteenth century, and the name, given to it many years afterward by one of its leaders, is compounded from two Russian words: "doukh," meaning "spirit," and "bor," an abbreviation of "bortensia," meaning "to wrestle." Fantasistic has marked the history of these Doukhobors, or Spirit Wrestlers, from their inception, and they have suffered not alone from the terrible persecutions of the state and the church, but even more from the tyranny of their leaders, who from the beginning made themselves absolute in their power. These taught, in addition to the doctrine of the founder—that God dwells in the human soul and that this indwelling essence is the supreme guide to life and light—that Christ himself was merely a sinless man, whose purity gave force to the divinity within him, and that their leaders were also sinless men, qualified by their superior excellence to guide the people. They also taught that it was a sin to read and write, that the Bible was not inspired, and that printing was the invention of Satan to lure souls to destruction. One of their leaders, toward the middle of the century, declared himself Christ's rep-
representative on earth, and surrounded himself with 12 apostles and 12 archangels to do his bidding. Kapustin, who followed him, taught that God in men dwelt in his fullest power in the most godlike men. This power was in him; therefore he was God. He called upon his followers to fall down and worship him, and brought down a flood of hatred and persecution upon the sect. Many of the Doukhobors were cast into prison, and all the powers of the church and the state were directed against them. However, they appeared only to thrive under the persecution. In 1801 Alexander I ordered the persecution stopped and released those in the prisons; but he was soon forced to withdraw his kindly treatment, the Doukhobors growing under it even more arrogant and refusing to obey the civil laws. Finally the Doukhobors appealed to the Emperor to settle them in some uninhabited place where they might worship after their own belief without offending the orthodox. They were permitted to remove to the region north of the Sea of Azov, and here thousands of them built homes for themselves. But here, official restraint being removed, they were even more subject to the brutality and passions of their leaders, and within a few years conditions became so horrible that the Government, about 1835, removed the Doukhobors to what was then the wilderness of Transcaucasia. Here they have lived ever since, having almost no relations other than business with the people around them. In recent years, while they have followed implicitly the direction of their leaders in religious matters, under the careful surveillance of the Government officials many of the social and political abuses that they suffered formerly have been done away with.

In 1887 the sect was divided by a rival candidacy for the leadership, and the bitterness of this fight and the hard feelings growing out of it drove part of this unhappy people to seek homes and peace in a new land. Negotiations were opened with several governments in an endeavor to establish them in a colony, and several proposals were accepted by Canada. The first colony, 2,000 in number, arrived early in 1899, under the leadership of Count Leo Tolstol, who with other philanthropists had become interested in their welfare, and were granted free lands in Manitoba. The first impressions of the Doukhobors were most favorable, and in the following year their number was increased by additional immigration to about 7,000 in Manitoba and the Northwest Territories. The Government loaned to the poorer families seed, plows, and other facilities for making their first crop. About three-fourths of this loan was repaid out of the crop of 1900. They had the esteem of all their neighbors, filled the schools with their children, and were rapidly learning to speak and read the English language. The climate, so similar to that of their old home in the highlands of Transcaucasia, seemed especially adapted to their advancement, and from poverty they had struggled into comfortable circumstances and many were saving money. A few realized the necessity of adapting their beliefs to their new conditions of life; but the great majority, particularly those of the Swan river settlements, in Manitoba, and about Yorkton, Assiniboia, clung to the old doctrines. In addition they adopted a vegetarian diet, refusing not only to eat butter, eggs, or any article of food that was even remotely connected with an animal, but as well to wear any clothing of animal origin or to use cattle or horses as beasts of burden.

Their first difference with the Canadian Government came about through their refusal to take the patents for their land individually, insisting that all holdings should be communal. Then they refused to comply with the laws of the Dominion in regard to marriage and divorce, insisting upon settling all these questions according to conscience and their interpretation of the Bible. In 1901 the Swan river Doukhobors, mindful of their lifelong feud with the Russian Government, refused to pay the school taxes. Their stock was seized and sold to meet the tax, and this seems to have taught them a permanent lesson. They are gradually adopting the use of animals for heavy farm work, and very few, if any of them, joined in the uprising of 1902. Their strange beliefs excited much curiosity and interest, but no serious trouble was expected until the summer of 1902, when, without warning, they turned all their horses, cattle, and sheep loose upon the prairies, and men and women took their places at the plow and hauled the heavy loads of farm produce to the towns, in some instances 80 miles distant. The mounted police rounded up the herds, and the stock was sold by the Government and the money put to the credit of the communities. The harvest was gathered with reap-hooks and threshed out with flails. During the autumn agitators continued to work among them, and the people, earnest in their faith and unshaken in their belief in their leaders, gathered in great meetings. From time to time came rumors of villages deserted, and of mobs of fanatics preparing for a descent upon Yorkton in a great pilgrimage to seek Jesus, from whom they believed to have received a message that his second coming was near at hand. These rumors were denied persistently by the authorities, who must have known the truth, and the result was that when, on the morning of Oct. 27, between 1,500 and 2,000 Doukhobors, men, women, and children, camped within 3 miles
of Yorkton there was no organization to cope with the situation, and for ten days the Doukhobors overran the country. At no time was there any fear of violence from the pilgrims, for the Doukhobors' doctrine teaches universal peace; but the suffering from cold and starvation was pitiable, and, swayed as they were by their implicit faith in their crazy leaders, all efforts were futile to persuade them to give up the search and return to their farms. All night long fresh bands continued to arrive. Some remained awake, chanting and praying, but the majority, worn out by their long tramp and stupid with cold and hunger, lay down to sleep in the open, with little or no protection from the biting wind and with the thermometer 10° below freezing. In the morning the immigration officials, interpreters, and citizens attempted to persuade them to turn back; but this was only the signal for a fresh outburst of singing and praying, and the mob soon followed the deputation into the town. "It was a motley crowd that entered the public square. First came the men bareheaded, clad in the coarsest cotton garments, and not very much of even those. Most of them walked in their bare feet, but a few wore rubber boots, and some wore short boots made from braids of binder twine. As they marched along they chanted a weird, rhythmic hymn, which at times rose almost to a martial strain. Next in the line came the little children on which the sick were being carried, and at the end of the procession the women and children dragged their feet wearily one after the other. The women were clad much the same as and the mounted police, cut out from the main body the women and children and the sick, and housed them in available places of shelter. These were not allowed to leave the buildings, and the men, realizing the firmness of the authorities, were forced to abandon them. The women refused all food, and pleaded passionately to be allowed to join the men on the march. During the days following, their condition, and particularly that of the children, was beyond description. Many became insane, all were starving, and all were insistent in their belief that they had received a spirit message and must find Jesus. After a night spent in prayer and the chanting of songs of praise, nearly 600 of the men set out on the long march of 300 miles eastward across the snow-covered prairie to Winnipeg, Manitoba, where they confidently expected to meet the Saviour, who, reincarnated, was to lead them forth to evangelize the world. An eye-witness thus describes the weird procession: "I overtook them at Binearth, a little village on the Northwest branch of the Canadian Pacific Railway about 200 miles from Winnipeg. They came straggling into the town in a procession 2 miles long. Picturesque figures the 1 were, mostly clad in blue and with gaudily colored scarfs. The wide, flaring skirts of their coats were kilted behind. Though the snow lay 3 inches deep on the ground, fully a score were barefoot. More than double that number were hatless. In front strode a majestic figure black as Boanerges and with a voice like a bull of Bashan. He was barefoot. On his head was a brilliant red handkerchief the men, and the children were also forced to adopt the inadequate cotton garments. Babes in arms clutched at their mothers' breasts in vain, and their thin, blue little faces, their starved appearance, and their heartrending cries were the first to bring the citizens to a full sense of the seriousness of the situation. Each of the pilgrims carried slung over the shoulder a bag containing about half a peck of bread, made from the whole wheat ground between stones and baked into a hard mass. This was cut into squares and soaked in what water could be found by the roadside to make it edible. This was all the food that the wanderers had brought with them, and it would be exhausted in a very short time. The young children could not subsist upon it, and many were on the verge of starvation." The immigration officials, aided by cowboys chief, and his body was clothed in a long, dusty, white felt mantle reaching almost to his feet. The Binearth people gave them food—dry oatmeal, which they poured in little heaps on blankets, half a dozen pilgrims helping themselves from each heap. The meal was preceded by their favorite chant from the eighteenth chapter of Romans and by the repetition in unison of prayer. Then the pilgrims sat in parallel lines and ate oatmeal dry from the sack. This, with bread, apples, and the dried grasses they had gathered from the prairie rose-bushes, formed their menu. After the meal, which lasted about an hour, they repaired to the back yards of the residences, and for a quarter of an hour the pumps were worked to be out of water to satisfy their thirst. At an hour afterward the procession was formed and the eastward journey resumed. . . . The snow began
to fall in light flakes. The pilgrims halted and made their pitifully inadequate preparations for camping. With their hands they tore up some long grass to serve as beds. From their pouches that a brief account of them as described by Major W. C. Gorgas, the chief sanitary officer of Havana, will be of interest.

For a century and a half yellow fever has been

each took a handful of dry oatmeal and munched it. Some scattered in the darkness to hunt for the dried fruit of the rose-bush. With no shelter, under the open sky, they lay down on the snowy prairie, wearied with their 20-mile tramp. Before singing themselves down they sang a psalm and quoted Scripture verses responsive, standing meanwhile with bare heads while the snow fell quietly over them." Many dropped out of the ranks from sheer exhaustion and lack of nutritious food, and many others would have fallen by the way had not their stronger comrades made litters and bore them along. They arrived at Minnedosa, 100 miles west of Winnipeg, in the night of Nov. 7, and on the morning of the 8th attempted to resume their journey, with the thermometer at 10° below zero. They were forcibly detained by the townspeople and farmers until the arrival of a military special train with 500 mounted police. After a slight struggle, the whole body were locked in the cars and carried back to Yorkton, to be forcibly returned to their villages.

MARYLAND. (See under United States.) MASSACHUSETTS. (See under United States.)

MEDICINE, ADVANCES IN. The Mosquito Diseases.—The remarkable etiology of yellow fever, which was worked out in 1901 by the Yellow-Fever Commission of the United States in Cuba, has during the past year received practical confirmation in a number of localities, notably in Havana. New measures for combating the disease, based on the mosquito theory, were adopted in that city immediately after the publication of the commission’s report.

The altogether astounding results which have been obtained by the first year’s application of these methods in Havana leave practically no doubt as to the mosquito’s agency in causing yellow fever, and are almost equally emphatic as to this insect’s being the sole agency for its spread. The results are so striking and furnish such convincing proof of the truth of the mosquito theory endemic in Havana. As far back as the historic records go, a month has never passed until the American occupation without a death from yellow fever, "and there has probably in all this time never been a day on which there was not a case of this disease in Havana." Up to July of the first year of the American occupation there was little yellow fever in the city. Then immigrants began to pour in, and about 16,000 reached Havana between July and Dec. 31, 1899. During this period a serious epidemic began.

In February, when Major Gorgas was appointed chief sanitary inspector of the city, a system of compulsory notification was enforced; every case being promptly isolated and quarantined. In case of death the body was buried with all sanitary precautions, and the sick-room thoroughly disinfected. The general death-rate of the city was meanwhile decreasing under the improved sanitary conditions, but the greatest care and watchfulness produced no decrease of the yellow-fever death-rate. The epidemic continued throughout the spring and summer, and reached serious proportions, even for Havana, in the fall. During 1900 there were 1,244 cases, with 310 deaths. All classes suffered. During this work $25,000 a month was spent, and 500 men employed every day. At the beginning of 1901 the non-immune population was larger than it had ever been before, and hence the conditions were favorable for a still more serious epidemic than that of 1900. The deaths in January and February were numerous. At about this time the results of the Army Board’s investigation were published, and Gen. Wood, who was determined to do all in his power to improve the sanitary condition of the city, authorized Major Gorgas to go to any reasonable expense in testing the new theory.

As a result of this decision an ordinance was at once issued requiring all people within the city limits to keep receptacles containing water free of mosquito-proof. Inspectors were appointed who went about and enforced this ordinance, ac-
companyed by men with oil-cans, who covered the surface of all puddles and cesspools about the dwellings, and destroyed all the receptacles in which mosquito larvae were found. After a sufficient time for compliance with the new rule was thought to have elapsed all persons on whose premises larvae were found were fined. Fifty men were employed in this work, and 100 men in the suburbs killing larvae and filling up puddles.

Coincident with these out-of-door measures all hospitals where yellow fever was received were ordered thoroughly screened. In cases occurring in private houses the house was screened by the health department. All infected buildings were thoroughly disinfected with pyrethrum powder; this drug stultifies the mosquitoes, which fall to the floor, and may then be swept up and destroyed.

This was used in preference to more powerful substances, because of its harmlessness to furniture, hangings, etc., and the short time required before the rooms are again ready for occupancy. Forty men were employed in this work. One hundred and ninety men were used in enforcing the new regulations as against 300 during the previous year.

In January, 1901, there were 24 cases of fever, with 7 deaths; in February there were 8 cases and 2 deaths. The month of March saw 10 cases and 2 deaths. In April 2 cases were reported. April 3, in May 2, and in June none at all. On July 1 all disinfestation of so-called fomites—insects, clothing, bedding, etc., was entirely discontinued. In July there were 4 cases and 1 death, in August 6 cases and 2 deaths, and in September 1 case. During October, November, and December there were none whatever. October and November have always been months when yellow fever was particularly rife in Havana. There is good reason for believing that the cases after those occurring in May were due to infection from a neighboring suburb, where a yellow-fever epidemic was in progress.

In the first ten months following the enforcement of the new regulations there were only 17 cases of yellow fever, as against something like 1,200 during the corresponding months of the previous year. As Dr. Gorgas says, "This is evidence of the practical demonstration of the mosquito theory."

On Nov. 6, 1902, he was able to say, before the New York Academy of Medicine: "It is now over a year since the last case of yellow fever occurred in Havana; if this period of safety can be kept out of the city for twenty years, I think yellow fever will be completely exterminated in North America, for Havana has been the great center of infection."

The later Vera Cruz Yellow-Fever Commission has entirely confirmed the findings of the United States Army Commission in Havana. They attributed the prevalence of the disease in Vera Cruz to the custom of the Mexicans of gathering rain-water for drinking purposes, and allowing it to stand about unprotected. War on these water-barrels has reduced yellow fever in the city over 50 per cent.

Sanitary measures directed against malaria based on the mosquito theory have furnished equally promising results.

The importance of the practical demonstration of the truth of these startling theories it is hard to overestimate. It may in many sections eventually be turned to great advantage.

Of interest in connection with the mosquito diseases is a recent monograph on The Culicæ of the World, in three volumes, by P. W. Theo-
bald. It has been prepared and published under the direction of the British Institution, and is the most comprehensive work on mosquitoes yet issued, in it are described 300 species, 136 of which are new.

Consumption.—At the first International Conference, held in Berlin from Oct. 22 to 26, 1902, a number of interesting papers were read, but nothing of great importance was announced. Prof. Frinken, in the opening address, said: "There are some points in the etiology of tuberculosis which are still unknown, but nobody nowadays doubts that the bacillus tuberculosis is the essential cause of the disease, and that the destruction of all the bacilli would mean the extinction of tuberculosis. . . . To cure a patient suffering from consumption is a preventive measure, because every patient with active tuberculosis is a danger to the healthy persons with whom he lives. . . . It should [now that sanatoriums are numerous] be the aim of the national societies to popularize the prevention of tuberculosis by the education of public opinion."

One of the most interesting and instructive features of the congress was the reading of the delegate from the United States.

Prof. Bouardel stated that France now had 28 sanatoria, of which only 2 were for paying patients. A collective investigation was also under way, with official support.

Dr. Linroth, the Swedish delegate, stated that the first sanatorium in Sweden was opened in 1900 with 100 beds. Since that time two others had been established, the total number of beds now available being 500.

Prof. Schröter, of Vienna, described but one institution, at Alland, near Vienna, which had 130 beds.

Dr. Egger, of Basle, reported 7 sanatoria in Switzerland, with 416 beds, at which 1,041 patients were received during 1901.

Another one was now in course of erection. These were apparently all free and public institutions, as 12 more private sanatoria were described by him.

Dr. Rördam, of Copenhagen, reported 5 sanatoria for children and 3 for adults in Norway, besides a number now in course of erection. A national association distributes pamphlets showing that tuberculosis is not contagious and how to get rid of it, and has also instituted a course of public lectures for the same purpose.

Dr. A. Heron said there were about 1,000 beds available for non-paying patients in England, and about 2,250 for pay patients.

Dr. A. Hillier, of London, a member of the British National Association for the Prevention of Tuberculosis, presented an encouraging report regarding the work of his association, which has 26 branches in England and her colonies.

Reports were also presented from Belgium, Hungary, Roumania, and Russia.

Compulsory notification of consumption was in general favor among the delegates, but was discussed at a private session.

According to Polk's Medical Directory for 1902, there are in New York city 3 hospitals devoted to consumptives, with a total of 408 beds, 2 of them being private institutions; to these may be added the tuberculosis hospital of the Department of Charities on Blackwells Island, with a capacity of 300. In the State of New York there are 2 sanatoria recorded, with a combined capacity of 168, both of them for pay institutions.

Boston is credited with 2 hospitals and 70 beds, but there is no sanatorium given in the entire State of Massachusetts.

Philadelphia is given 3 consumption hospitals with 153 beds, and Pennsylvania 1 sanatorium containing 33 beds.

There are apparently no special consumption hospitals in Chicago, and no sanatoria in Illinois.

Bovine and Human Tuberculosis.—An investigation under the direction of Lord Lister has recently been carried out at the Jenner Institute of Preventive Medicine, in London.

The tubercle bacillus was first passed through pigs, cats, rabbits, and rats, and its effect then tested on calves.

The most important results, as they bear on Dr. Koch's pronouncement of last year, occurred in the case of the pigs subcutaneously inoculated with human tuberculous sputum. In 7 of the 9 pigs thus treated the post-mortem examination showed marked tuberculous lesions and disease of the lungs.

In 3 other pigs fed with tuberculous sputum local lesions were found, chiefly cervical and tonsillar. Hence the pig, at any rate, is capable of contracting a rapidly fatal general tuberculosis as a result of inoculation with tubercle bacilli of human origin. "The human tubercle bacillus is not markedly excited in virulence for the calf by a single passage through the pig, cat, rabbit, or rat. At the same time the experiments show that the human tubercle bacillus is by no means innocuous to the calf, as the control animal infected directly with sputum contracted an extensive glandular tuberculosis." The authors believe that the various other forms of bacilli which must be injected, along with the tubercle bacillus, in the human sputum may have much to do with determining the virulence of the tubercle bacillus itself.

At the annual meeting of the British Medical Association Dr. J. Hamilton (Aberdeen) opened a discussion on the relationship between bovine and human tuberculosis. As the result of extended experiments he had found that the local infection by human tubercle produced in a calf was capable of causing general tuberculosis if transferred to another calf.

The human tubercle bacillus developed slowly in the calf at first, but in time produced general tuberculosis. It took the bacillus some time to get acclimated. "Tuberculosis is a rule, excited more acute and wide-spread disease than did the human-grown form, but the latter gained in virulence by inoculation from one calf to another."

Prof. Sheridan Delépine (Manchester) said the experiments of Koch were so contradictory to general opinion and to the experiments of other observers that even his great name was not sufficient to weigh down the balance on his side. Personally he had been able to produce in the calf true tuberculosis from human bacilli, and from this he got tubercule bacilli which were still more virulent.

Dr. T. Sherman (Edinburgh) had found that the bacillus tended to increase in virulence in passing through a series of animals of the same species, and to lose its virulence when transferred to an animal of another species.

Dr. Koch, in a brilliant address at the Berlin Congress, reiterated his views expressed in London last year, and was of the opinion that the severe measures concerning bovine tuberculosis prescribed by the sanitary laws were not justified.

Urea and Consumption.—Dr. Henry Harper, an English physician, announced in the early part of last year a series of experiments with urea.
as a specific for consumption. He gave a number of theoretical reasons why the drug might be expected to affect the cause of cancer favorably, and then described several cases in which he thought its administration had produced a cure.

Dr. S. V. Pearson publishes (Lancet, Nov. 22, 1902, p. 385) an account of 7 cases of chronic tuberculosis which were treated with urea at the Brompton Hospital for Consumption. Some of the patients improved in general condition, but none in physical signs; and in several an undoubted extension of the disease occurred. Dr. Pearson’s conclusion was that “in chronic pulmonary tuberculosis there is no special action exerted by urea... either in arresting the ravages of the disease or in countering the deleterious effect on the constitution. He, however, states that it may have some value in other forms of tuberculosis.

The Diazon-Reaction in Consumption.—Dr. Raoul de Boissieux, of the Victoria Hospital for Consumption at Edinburgh, describes a series of tests of the above reaction (British Journal, Nov. 15, 1902, p. 1576). His conclusion is that the reaction only occurs in a small number of cases, especially of cancer, and not in association with an advanced stage of the disease. He agrees with previous observers in thinking the presence of the reaction indicates a bad prognosis.

Cancer.—The year’s study of the cancer problem has not produced any marked advance in our knowledge regarding its causation or cure. Cancer research has, however, been systematized and largely extended, especially in England, and definite results of the greatest importance will undoubtedly follow the concerted attack, which is now of world-wide proportions, on this mysterious scourge of the human race.

A scheme has recently been elaborated in England for the purpose of endowing cancer research laboratories at the hospitals. A similar organization exists in Germany. In France cooperative cancer work has been in operation for some time, and a special journal is devoted to the publication of the results. In the U.S., Dr. Frank E. Goodwin, of the Massachusetts General Hospital, has done work in the past two years in the study of the etiology of cancer has been wholly negative in its results, in the sense that an increasing doubt has been thrown upon the parasitic origin of the disease and upon the pathological significance of so-called cell inclusions.

The director of the State Laboratory at Buffalo, N.Y., says, on the other hand, that the results of the past year’s work have been to strengthen the conviction that cancer is infectious.

Leopold, of Dresden, thinks “blastomyces may be the cause of malignant new growths in man; they may convey the disease by inoculation from man to animal, producing exactly similar new growths which are fatal to the animals affected.” Among his experiments Leopold mentions the implantation into a rat of tissue from a carcinoma of the ovary. The animal died in sixty-one days from tumors of the size of a walnut, which was found to be an adenocarcinoma.

Dr. Henry Morris, a leading London surgeon, opened a discussion on cancer at the meeting of the British Medical Association. He summed up his conclusions regarding treatment in part as follows:

The serum treatment of malignant disease is not of the slightest use in carcinoma. Not one half of the cases of spinous syphilis of the skin disappear under treatment with Coley’s fluid (see last year’s Annual on Recent Advances in Medicine for an account of the various modern methods of treatment in which Coley’s fluid is described). This treatment has many dangers, and should never be employed except in absolutely inoperable cases. Beattie’s treatment is limited in its action to cases of mammary carcinoma, and even in these cases only a small proportion are favorably influenced by it, and it can be relied upon neither as a palliative or cure in any given case. Rodent ulcer has in the Finsen light and the X rays its most successful treatment so far as we are present know. Sarcomas, epitheliomas, and other forms of carcinoma are best treated, whenever possible, by early excision. With few exceptions the attempts to cure cancer by means other than early and free operations have hitherto been almost invariably futile.

The cases of wonderful cures of cancer by various novel remedies which are continually appearing in the medical journals and newspapers are probably, most often, mere fever, and in association with an advanced stage of the disease. He agrees with previous observers in thinking the presence of the reaction indicates a bad prognosis.

The combined effect of the diminished occurrence of the disease resulting from the lowering of the death-rate produce a total decrease of mortality, which has often exceeded and seldom fallen below 75 per cent. There is, says Dr. Wright, a certain amount of risk in all protective inoculation. (a) There is the case where the patient’s resistance is naturally low, or has been reduced, as is often the case, by a previous attack of typhoid fever. (b) Where a full dose is inoculated in actually infected surroundings. (c) Where an excessive dose is given or a normal dose too soon repeated. It must be the task of the future to try to minimize the risk, on the one hand, by working out an adequate method of standardization of the vaccine, and, on the other hand, by combining with the study of the changes produced in the blood by the antityphoid inoculation the study of the blood in the typhoid convalescent and the study of the gradual success or failure of the process of immunization in the actual typhoid attack.

Another and less favorable view of the typhoid antitoxin is presented in a report by Alexander Crambie. This result of statistics obtained on 250 officers invalided from South Africa during the Boer war he arrives at the following conclusions:
per cent. among those not inoculated. Beyond the age of thirty years the results are reversed, the plague being with the non-inoculated greater, the incidence among them being only 14.3 per cent., as against 24.7 per cent. among the inoculated.

The first period is that at which susceptibility is greatest. Dr. Crombie also states that a second inoculation increases the susceptibility to typhoid.

In a study of the fatality of typhoid in various sections of the United States at different seasons whose results form No. 59 (vol. viii), 1902, of the quarterly publications of the American Statistical Association, the following table of results showing the death-rate per thousand is given. The year is divided into four quarters, 1 indicating January, February, and March, 2, April, May, and June, etc.

<table>
<thead>
<tr>
<th>LOCALITIES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>21.1</td>
<td>18.8</td>
<td>17.9</td>
<td>18.8</td>
</tr>
<tr>
<td>New York city</td>
<td>26.5</td>
<td>24.8</td>
<td>24.1</td>
<td>17.9</td>
</tr>
<tr>
<td>Berlin</td>
<td>17.1</td>
<td>15.8</td>
<td>11.4</td>
<td>18.5</td>
</tr>
<tr>
<td>Providence</td>
<td>23.3</td>
<td>24.8</td>
<td>24.1</td>
<td>22.7</td>
</tr>
<tr>
<td>Massachusetts General Hospital</td>
<td>14.5</td>
<td>11.0</td>
<td>11.9</td>
<td>18.0</td>
</tr>
<tr>
<td>Boston City Hospital</td>
<td>17.2</td>
<td>17.8</td>
<td>18.4</td>
<td>10.8</td>
</tr>
</tbody>
</table>

It will be seen that, contrary to the generally accepted notion, the fall is the least fatal period. As a result of an investigation of the thromboses following typhoid fever, Drs. A. E. Wright and H. H. G. Knapp, of the Army Medical School, Netley, conclude that the tendency to thrombosis is due primarily to an exclusive milk diet; secondarily to an excess of lime salts in the blood, which much increases its coagulability. The milk should either be decalcified or citrate of soda be added to it.

Rheumatism.—Investigations by Drs. Paynton and Paine (Lancet, Aug. 2, 1902, p. 273) indicate the presence of a definite germs in cases of acute rheumatism. This is a diplococcus, which is found in the blood, the valves of the heart, in pericardium, and the joints, and in the subcutaneous nodules. Pure cultures of this organism when inoculated into rabbits produce symptoms similar to those of acute rheumatism in man.

In the Zeitschrift für diätetische und physikalische Therapie, vol. vi, No. 4, July, 1902, Menzer describes a curative serum based on the germ theory of the disease. The germ is obtained by scraping the tonsils of rheumatics; it is cultivated on ascites fluid, and then injected, in graduated doses, into larger animals. The serum thus made is antibacterial (that is, a disinfectant), not antitoxic, and its introduction into the body is supposed to supply the latter with bacteriolytic agents. It at first increases the inflammation but finally subdues it.

In 20 cases treated with the serum Menzer reports that although there was no appreciable modification of the symptoms until the deficiency stage was reached, after this point convalescence invariably occurred rapidly and with no relapses. Chronic stubborn cases which had resisted all other remedies, including the salicylates, were cured or greatly benefited in two or three weeks' time. Further experiments with an antistreptococcic serum in rheumatism are described in the Zeitschrift für klinische Medicin, Nov. 14, 1900.

Plague and Cholera.—According to the report of the sanitary commissioners for Bengal, inoculations for cholera have lamentably fallen off, because they are now entirely optional. Inoculation for plague being with the non-inoculated, the incidence among them being only 14.3 per cent., as against 24.7 per cent. among the inoculated.

During the last fiscal year plague has caused over 200,000 deaths in India. The rapid growth in intensity of the present epidemic has led the Punjab Government to appropriate $400,000 for a wholesale inoculation of the inhabitants with plague antigens. Arrangements were to be made for over 6,000,000 inoculations.

New Serum Institute in Denmark.—Of interest in connection with the growth of the serum treatment of disease is the erection in Copenhagen of a Government school for the instruction of students in serum therapy and manufacture, and for the conduct of original research.

In 1894 Prof. C. J. Salomonsen, director of the University Laboratory of Medical Bacteriology of Denmark, made a request to the Minister of Educational and Ecclesiastical Affairs for a small sum of money ($2,000 or $3,000) with which to carry on the manufacture of diphtheria antitoxin. He obtained the grant, and with it, besides making the antitoxin, instituted a small class for the instruction of his students in the technique and theory of serum therapy. The product of the work of the laboratory was distributed free of cost. The experiment proved so satisfactory that a site for a separate serum institute was finally secured on the island of Amager, just outside the old fortifications of Copenhagen. This institution was formally opened on Sept. 8, 1902.

The following general rules may be laid down as the result of the clinical work thus far accomplished with the various sera: The method of administration is of considerable importance. In tetanus (lockjaw), for instance, it has been found that injections near the brain are by far the most effective, direct intracerebral inoculation being desirable. Early use of the sera is of the greatest importance, and their administration is recommended even while the diagnosis is provisional. The dosage should be large; many failures have probably been due to the administration of insufficient quantities. (In this connection, however, see Prof. Wright's statements above regarding typhoid.) Great care should be taken to secure a fresh, undestroyed endotoxin.

Phototherapy.—The recent work in this branch of medicine has been chiefly clinical. According to Dr. L. Freund, of Vienna, all radiant phenomena—the X rays, ultra-violet light, Finsen light, etc., have the same physical basis, and the effect of rays on the body varies, just as that of chemical agents, with the dosage, and may range from mere stimulation to actual destruction of tissue.

In weak doses the rays seem to favor organic processes, such as the growth of hair and the production of pigment. In stronger doses they lower vitality and produce inflammatory reaction. The clinical effects of all forms of radiotherapy are similar. The physiological effects are in direct proportion to the intensity of the raying, but in inverse proportion to the wave-lengths. The reaction appears after a latent period, the length of which is inversely proportional to the intensity of the raying. Those rays which have the property of exciting fluorescence are physiologically the most powerful. The Finsen lamp has a greater penetrating power than the ultra-violet lamp. J. M. H. McLeod describes experiments for increasing the reaction after Finsen treatment.
The liquids he found to be especially useful were (a) a 1-per cent. solution of potassium perman- ganate, (b) a weak solution of glacial acetic acid, and (c) pure carbolic acid. According to Dr. G. G. S. Taylor, the application of pyrogallol greatly enhances the effect of Fin- sen treatment.

Frequent descriptions of cases of tubercular or cancerous skin diseases successfully treated by one of the several forms of therapeutic rays have appeared in the medical journals during the year. Among the most striking of these is a series of 80 cases reported by Dr. C. W. Allen (Medical Record, New York, Nov. 15, 1902, p. 762), Professor of Dermatology at the New York Post-Graduate Hospital. Of 33 epilithomas and 10 mammary cancers, 52 per cent. were discharged as clinically cured, and 10 per cent. were still under treatment.

Smallpox.—The serious and wide-spread epidemic of smallpox which occurred last year on both sides of the Atlantic led to renewed discussion of compulsory vaccination and the methods by which the disease is spread.

In the section on State medicine at the last meeting of the British Medical Association the following resolution regarding vaccination was adopted:

That inasmuch as there is strong evidence to show that the effect of infant vaccination has very largely lost its effect after ten or twelve years, it is desirable that all children should be vaccinated at the age of twelve. The president expressed his opinion that compulsory vaccination was an absolute necessity, as the recent serious epidemics had demonstrated. "No one would object to the compulsory squelching of a man who persisted in haunting theaters and concert-halls with his pockets full of dynamite, yet many of those who refused to be vaccinated were quite as dangerous to the public."

The question of the aerial transmission of smallpox was again raised by a paper in the Lancet (London, Feb. 22, 1902) regarding the effect of the hospital ships anchored near the villages of Purfleet. The statistics given in this article were used to indicate that those portions of the town over which the prevailing winds blew after passing across the ships suffered more severely from smallpox than other sections of the town.

While it is true that any contagious disease may be transmitted from person to person by an actual transference of material particles of contagium, and that wind may be, and undoubtedly is, in certain diseases—in tuberculosis, to cite a common example—the carrier of the morbid agent, the popular conception of the aerial transmission of a suble gaseous poison, is entirely opposed to the results of modern research. The modern scientific view being that without an actual material transference of the poisonous agent there can be no infection.

A rather striking illustration of the value of vaccination has occurred during the last two years in Porto Rico. Soon after the Spaniards left the island in 1898 smallpox became epidemic, and by January, 1899, says Major Ames, the Director of Vaccination for Porto Rico, the disease had "honeycombed the island, and in February was spreading like a ballop." In February compulsory vaccination was begun. By July 1, 860,000 vaccinations had been performed among a total population of 900,000. During the two months following, the mortality has been 2 per cent. against a previous smallpox death-rate of over 600.

Intraspinal Anesthesia.—Dr. H. Littlewood, F. R. C., surgeon at the Leeds General Infirmary, gives an account of his experience with this method of anesthesia.

"I do not think that I have ever been more impressed in my life than I was with my first case, and I believe that all who saw the operation were equally impressed. It was difficult to realize that within a few minutes of introducing a third of a grain of cocaine into the spinal canal one could deliberately amputate through the knee-joint, the patient being conscious all the time, and yet not feeling any pain."

In all but one of Dr. Littlewood's cases "it acted admirably." This was a very nervous man who cried out apparently more from fear than pain. Among his cases were foot and leg amputations, and several "radical cures" for femoral and inguinal hernia.

The Germs of Syphilis.—Prof. Max Schützler, whose work in connection with the cancer germ has been rather freely criticized, and who in 1900 stated that he had found certain characteristic bodies in the lesions of all stages of syphilis, publishes further researches on the subject in the Centralbalt für Bakteriologie (Nos. 6, 6, 7, 8, and 9, Bd. xxxi, 1902). In all his experiments in the culture of syphilis he has found certain capulated bodies, some with protoplasminic contents, some empty, which he considers one stage in the life history of the parasite. Another peculiar form with a characteristically striated wall he thinks a young form of the germ. He states that he succeeded in cultivating this bacterium in closed flasks at $37^\circ$ to $38^\circ$ C. Inoculation experiments with the cultivated germ on rabbits seem to have been unsuccessful. Prof. Schützler considers the parasite as belonging to a class about which little is as yet known, but which, he thinks, includes the form already described by him as characteristic of cancer growth.

Examination of Blood.—During recent years the examination of the blood has come to be more or less of a routine operation in diagnostic work.

The four methods in general use are: (1) The estimation of the number of red and white corpuscles. (2) The examination of stained blood films. (3) The determination of the agglutinating power of the blood. (4) Its bacteriological examination.

In many diseases the information obtained from the use of one or more of these methods is of the utmost value, both in determining treatment and in prognosis.

Dr. William Savage, of Cardiff, calls attention in a recent issue of the Lancet (London, Sept. 27, 1902, p. 860) to an improved method for counting the white blood-corpuscles. It is based on that of Stengel.

The blood is collected by means of a Thoma-Zeiss small pipette, such as is ordinarily used in determining the red corpuscles (the pipette should always be filled up to the 1.0 mark). The blood is then diluted with some colored fluid, such as Toisson's solution, or Sherrington's fluid. The red corpuscles are first counted, in the ordinary way. To count the leucocytes the eyepiece is drawn out until a diameter of the field of vision is just spanned by an exact number of squares; this number is called $-i.e.,$ counts the number of squares which exactly stretch across a diameter of the field of vision. The ruled squares need no longer be taken into account. The number of squares in which the entire number of fields of vision is now counted, care being taken that the fields do not in any
The stained leucocytes can be readily distinguished from the red corpuscles. The average number of leucocytes per cubic millimeter may be found by the following formula: 

\[ \frac{5600000 \times y}{11} \]  

where \( x \) and \( y \) only have to be determined, and a simple calculation gives the result. "Such a formula is available for any microscope and for any eyepiece."

The Sleeping-Sickness—A curious disease of the brain variously called the "sleeping sickness," "sleeping dropsey," "negro lethargy," etc., has been occasionally mentioned by medical travelers in certain portions of Africa. But very little has been known regarding its causes and symptomatology, as owing to its comparative rarity it passed for a long time unnoticed by the modern pathologist.

A considerable increase during recent years in its ravages in the Uganda district, and on Princess island and the province of Angola, has finally led both England and Portugal to send out commissions for studying it. The report of the Portuguese commission, which worked on Princess island, is summarized in the following account:

The most remarkable symptom of the disease is fits of absolutely uncontrollable sleepiness. At first these can be partially overcome, but as the disease progresses they not only increase in frequency but become so irresistible that the patients fall asleep with their mouths full of food, or while drinking. The sleeping finally becomes almost continuous. It is not so deep, however, that the patients can not be aroused, even as the end approaches—it is almost always fatal—but they immediately fall asleep again. According to Dr. Patrick Manson, the onset of the disease is preceded by a lightening and redening of the hair. The disease is almost entirely limited to negroes. In the early stages there seem to be no marked mental changes, but later there is nearly always great depression of mind. According to Dr. Manson, the disease as observed in the Congo is frequently attended by insanity. Usually, even up to the fatal day, the sufferer remains placid and usually asleep, yet awake; and shows signs of pleasure—one patient smiling when presented with a cigarette a few hours before his death. The memory seems to be but slightly impaired, but the will and power of concentration are markedly weakened almost from the start. The senses—sight, hearing, and taste—remain active to the last. Sometimes during the early stages of the disease, between the fits, instead of the usual depression there is excessive and noisy hilarity, every occurrence being an excuse for "boisterous guffawing."

A number of pathological bodily conditions were found in the various organs (for which see the report of the commission published in the London Lancet, Sept. 27, 1902, p. 885), but the most marked and constant changes were found in the brain.

The cephalo-rachidian fluid, a small amount of which is present in the ventricles of the brain and canal of the spinal cord in health, was always found to be considerably increased in quantity and slightly turbid, although not purulent. The increase of fluid was accompanied by inflammation of the membranes of the brain, varying in extent and severity in the different cases, but always present to some extent.

Microscopic examination of the brain substance showed an infiltration with leucocytes. Bacteria were of course suspected and searched for. In the vessels of the pia mater, in the cerebral and medullary capillaries, in the cephalorachidian fluid and in the brain substance itself there was constantly found a diplo-streptococcus, which measured from 1.5 to 2.0 \( \mu \) in diameter. It was found very difficult to cultivate this coccus artificially, although a slight growth was obtained on a culture medium of ascitic fluid and meat broth in equal proportions. Guinea-pigs and pigeons were unaffected by inoculations with the coccus, but rabbits were somewhat sensitive, and it was fatal to mice.

The conclusion reached by the commission was that the disease is a form of meningo-cephalitis, and that treatment "will be difficult, but may be possible in the early stages."

At Princess island the exciting cause of the disease appears to be excessive labor, poor food, and bad sanitation. All negroes of either sex are liable to contract it, except those over forty years of age. From one of the cases examined some ground was given for believing it is contagious. These people eat from the same bowl with their fingers, and lick the latter after each mouthful. Nothing could be learned regarding the incubation period. The onset may be sudden and marked by furious delirium with homicidal tendencies, but it is commonly preceded by a period of general malaise, lack of appetite, and incapacity for work.

At a meeting of the pathological and microscopic section of the Liverpool Medical Institution on Nov. 13 Dr. W. B. Warrington stated that the stress of the disease falls upon the lymphatic system, and especially that of the central nervous system. His observations agree with those of Dr. F. W. Mott and supported the toxin view.

Alcohol in the Human Body.—The Practitioner devotes its issue for November, 1902, to an exhaustive discussion of the alcohol question from the medical point of view. It has obtained the views of many English and American physicians, including Sir Samuel Wilkes, Sir Henry Thompson, Sir William Broadbent, Prof. G. Sims Woodhead, and J. Milne Bramwell. Regarding their personal use of alcoholic beverages, Prof. Sims Woodhead attributes his early success in athletics and his present ability to do a good day's work largely to the total abstinence. James Edmunds, of the London Temperance Hospital, gives statistics that indicate a considerably longer life among the total abstainers than in the case of even the so-called moderate drinkers. The general opinion of three of the practitioners may be summed up in the statement that alcohol is a useful drug, but a dangerous beverage.

In a recent memoir on alcohol (sixth memoir of the eighth volume [1902] of the National Academy of Sciences) W. O. Atwater and F. G. Benedict first call attention to the fact that as alcohol contains no nitrogen, it can not build or repair tissue of the brain and canal of the spinal cord in health, was always found to be considerably increased in quantity and slightly turbid, although not purulent. The increase of fluid was accompanied by inflammation of the membranes of the brain, varying in extent and severity in the different cases, but always present to some extent. Alcohol as a food can only be com-
pared with the starches, sugars, and fats, and not at all with the nitrogen-containing foods, such as meat.

A series of experiments were conducted on 3 young healthy men, 2 of whom had always been abstainers. The alcohol was taken in small quantities—2½ ounces per day in 6 doses—equivalent to 6 ounces of whisky of a bottle of claret.

It is expressly stated by the authors that their conclusions have no bearing whatever on the effects of long-continued drinking, nor of the effect of alcohol drinking on the ability to do hard muscular work.

They found that over 98 per cent. of the ingested alcohol was oxidized (which means utilized) in the body. Compared with the ordinary food substances as heat-producers, the following figures were obtained:

<table>
<thead>
<tr>
<th>SUBSTANCES</th>
<th>Heat of combustion</th>
<th>COEFFICIENT OF AVAILABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Calories.</td>
<td>Of material.</td>
</tr>
<tr>
<td>Protein</td>
<td>5.66</td>
<td>98 per ct.</td>
</tr>
<tr>
<td>Fat</td>
<td>9.4</td>
<td>95</td>
</tr>
<tr>
<td>Carbohydrates (starches, etc.)</td>
<td>4.10</td>
<td>97</td>
</tr>
<tr>
<td>Alcohol</td>
<td>7.87</td>
<td>96</td>
</tr>
</tbody>
</table>

The proportions of food and the several kinds of nutrients digested and made available for use in the body were practically the same in the experiments with and without alcohol in the greater with the alcohol diet than with the ordinary diet, but the difference was extremely small.

The potential energy of the alcohol was transformed into kinetic energy in the body as completely as that of the ordinary nutrients. The efficiency of alcohol in the protection of musculature fat from consumption was very evident. Its efficiency in protecting body protein was evident, but it was not fully equal in this respect to the isodynamic amounts of the ordinary nutrients. The results, however, were not the same with the different subjects. An increased excretion of nitrogen at first occurred in the men unaccustomed to the use of alcohol; this, however, disappeared in the course of five or six days.

"That a part of the potential energy of the alcohol was transformed into the kinetic energy of muscular work these experiments do not prove, though they make it highly probable. We repeat," say the authors in closing, "that there is a very essential difference between the transformation of the potential energy of alcohol into the kinetic energy of heat, or of either internal or external muscular work, and the usefulness or harmfulness of alcohol as a part of ordinary diet. Regarding this latter question, the experiments bring no more evidence than they do regarding the influence of alcohol upon the nervous system, or its general effect upon the health and welfare."

**Surgery of the Heart.**—Dr. H. M. Sherman, of San Francisco, has added to the records of 34 cases of surgical operations on the heart. Of these, 5 died on the operating-table from hemorrhage; 10 died soon after leaving the table; 6 died later from blood-poisoning; and 13 recovered. The ventricles, owing to their much thicker walls, may be more successfully sutured than the auricles. Sir Lander Brunton, as the result of experimental work on heart-wounds, suggests that it may be possible to treat mitral stenosis (a form of heart-disease caused by the gradual closing of the mitral valve) by surgical means.

Surgery, Bloodless.—Dr. Adolf Lorenz was born in a small town in northern Austria forty-nine years ago. His father was a watchmaker, and was poor. The son entered the University of Vienna in 1875; soon won an endowed scholarship, and with the aid of this and what he could make by tutoring managed to complete the course, and obtained his degree in medicine in 1880. He soon became clinical assistant to Dr. Albert, Professor of Surgery, his ambition was to become a general surgeon, but a special sensitiveness of his skin to the antiseptics that were then coming into use in surgery—cyclic acid and bichlorid of mercury—so seriously hampered him that he was obliged to stop his clinical work.

Prof. Albert advised him to devote himself to orthopedic surgery, and to this he reluctantly turned. He is 6 feet 2 inches in height, and muscular in proportion.

Prof. Hoffa, a surgeon of Würzburg (since removed to Berlin) devised, about 1890, an operation for the cure of congenital hip dislocations, which now goes by his name. Dr. Lorenz, after operating according to Hoffa's method several times, modified and improved it by considerably reducing the cutting, and the operation became known as the Hoffa-Lorenz method. Dr. Lorenz performed this operation several hundred times in Vienna, and out of the experience thus gained came his so-called bloodless method. This he performed for the first time in 1890, on a little Viennese girl. It proved successful, and he used it in other cases, improving the technique on each occasion. The operation was first called to the attention of the profession at the twenty-fifth Congress of the German Association of Surgeons at Berlin in May, 1896. It was then generally conceded that a new and valuable principle of treatment had been discovered. Paci, an Italian surgeon, declares that he discovered and announced the same operation as early as 1888. But there is considerable difference between the two methods, although both are bloodless. The Paci operation is apparently much less thorough, and consequently less effective. The Lorenz operation was first performed in the United States about six years ago by Dr. George R. Elliott, a pupil of Prof. Lorenz, on a girl of five years, who presented a typical congenital dislocation of the right hip. Other American surgeons have since performed the operation in several cases, with varying success; and, in fact, it was tried unsuccessfully in the case of the Armour child before Dr. Lorenz was sent for. She had a double
congenital dislocation, both hips being deformed, and the Chicago surgeon's operation resulted, it is said, in curing but one joint. The hip-joint is formed by a hemispherical depression in the pelvic bone, called the acetabulum, and a round, ball-like protuberance from the upper end of the thigh bone, or femur, set almost at right angles to the shaft. This protuberance fits into the socket of the pelvic bone and forms what is known as a ball-and-socket joint. In congenital dislocation of the hip, either because of some imperfection in the ball or in the socket, or through a prenatal accident, the ball and the socket are separated, and because of the arrangement of the muscles surrounding the socket, the head of the femur is displaced upward, usually either backward or forward. The object of the Lorenz operation is to replace the ball in the socket and hold it there until the joint has recovered its power sufficiently to retain the correct position without the use of the knife. After the dislocation has existed for some time the surrounding muscles become contracted, and great force is required to stretch or tear them sufficiently to permit the ball to drop back into its socket. Hence the essential part of the operation consists in stretching and tearing the muscles until they are limp and functionless. This is accomplished by Dr. Lorenz in the following manner: An anesthetic is given; an assistant then firmly holds the pelvis of the child, while the doctor raises the leg forward and upward until the ball is carried over the shoulder. Gradually, the muscles meantime being kneaded and massaged, especially at the points where they are fastened to the bone. The child is now turned on its face, and the same extreme stretching produced in the opposite set of muscles by carrying the leg backward and upward. The leg is drawn away from its fellow—abducted, as it is called—and the inner thigh muscles thus stretched and torn. These movements are continued until the muscles about the thigh are all quite flaccid. The skin is usually considerably bruised during this operation. The femur is now drawn down until the ball is opposite the socket, and then manipulated until it drops into the latter. Dr. Lorenz is thus quoted regarding the sensations produced in the body: "At the door of his hereditary residence, from which he has been excluded for a long time through stress of circumstances, amid the chiming of bells, the beating of drums, and the firing of cannon which shakes the foundations of his castle. And yet this plaintive music of nature is for the parched ears of the operator a sound-intoxicating song of the spheres; as long at least as he preserves, during his laborious work, a receptive soul for such enjoyment." Owing to the flaccid, rag-like condition of the muscles, the newly formed joint is not stable, so that a redislocation is very apt to occur. In order to prevent this, the leg is drawn out sideways so that it rests at an angle of 90 degrees with the body, and maintained in this position by a plaster cast. The pains due to the operation subsided in a few days, and the child is then encouraged to walk about and play. Dr. Lorenz lays great stress on the early use of the limb, holding that the presence of the ball in the acetabulum, caused by the weight of the body, is an important element in causing the reformation of a useful and efficient joint. In his earlier operations mechanical contrivances were used for stretching the leg and drawing down the femur, but these are now rarely required by Dr. Lorenz, although it is probable that the surgeon of average strength will have to resort to them much more frequently. He now leaves the plaster cast in place for six months to two years; his early practise was to remove it after three months, and, if necessary, put on another. He holds that a cure is obtained in about 80 per cent. of his cases, and an improvement in nearly all. It is said by other surgeons that the cutting operation is equally successful. Dr. Lorenz has applied the same bloodless methods to the treatment of other joint and bone deformities, and even to wryneck. Stiffened knees and clubfoot are corrected by the intra-articular modeling redressment, as he calls his powerful massage, and the shortened (sternoclavicular) muscle in cases of wryneck is torn apart and stretched instead of cut, as by the old method.

One of his principles is to save the bone, even at the expense of the soft parts. He believes that efforts should always be made to cause the patient's own joint to repair itself, to prevent a deformity, or a tendency thereto, whenever possible, rather than to clothe him in a suit of mail or a cage of steel rods. In chronic joint disease he uses as little apparatus as possible, and discards it early.

The Lorenz bloodless operation is by no means entirely free from danger. Among the few patients operated on; one case of fracture of the femur, another in which an extensive blood tumor formed, and a third in which severe tearing of the perineum occurred.
electrical engineering was referred to, and the lectures ended with an appeal for the more extended study of the physical properties of metals.

The report of the committee of the Iron and Steel Institute which was appointed to ascertain whether it would not be possible to make the terminology of metallography less complicated and more precise comprises a glossary of the more important terms used by authors of memoirs dealing with the subject, with the exact equivalents in French and German. Care was taken in preparing the work to exclude controversial matters, and when a definition was not universally accepted to quote the definition given by the specific author.

The investigations of Prof. J. O. Arnold and Mr. Andrew McWilliam on the composition of steels were confined to pure iron and carbon steels such as are produced in the best crucible practise. The authors reached the conclusions that the clear and definite constituents of hardened steel are (a) hardenite, Fe₃C, of which the whole mass consists only in the case of 0.89 per cent. carbon steel; (b) ferrite, Fe, which segregates more or less in unsaturated carbon steels in spite of the most careful action of washing; and (c) cementite, which segregates more or less in saturated steels in spite of the rapid action of quenching. The indefinite portions of the hardened steels consist in unsaturated carbon steels of hardenite containing more or less unsegregated ferrite, or in supersaturated carbon steels of hardenite containing more or less unsegregated cementite. Moreover, not a less interruption by the gases takes place, and a crystalline structure developed at high temperatures. It is marked in saturated carbon steels by preferential etching lines; in unsaturated carbon steels by stringer of ferrite; and in supersaturated carbon steels by stringer of cementite. The existence of the constituent sorbite, troosite, and austenite is extremely doubtful. Students should guard against apparent or false constituents really due to optical causes or to obscure polishing or etching effects. The views expressed by the author were opposed on the reading of their paper at the meeting of the Iron and Steel Institute by Sir W. C. Roberts-Austen, Mr. J. E. Stead, and others.

Iron and Steel.—The first paper read at the summer meeting of the Iron and Steel Institute, at Derby, was that of Mr. W. Briggmann, of Dortmund, and showed that almost all of the increase in the world's production of pig-iron from 18,300,000 tons in 1880 to 59,000,000 tons in 1890 was shared by the United States, the weight of pig-iron made in America in 1901 having been more than three and a half times what it was in 1890, and that of Germany more than three times greater. The large increase in the German production was ascribed by the author to the development of coal-mining, which had made available a good supply of native fuel, and to the opening up of the iron deposits of Luxemburg and Lorraine, by which a supply of native ores suitable for the basic process of steel-making had been placed at the disposal of the manufacturer. The dephosphorization of iron in the converter exercised the most important influence in the rise of the German iron industry. While the make of basic pig-iron had developed to be more than 4,500,000 tons, or 2,000,000 tons more than the total iron production of 1880, and the make of foundry pig-iron had also increased from 200,000 tons in 1880 to 1,500,000 tons in 1890, the make of Bessemer pig-iron in 1890 had declined from about 2,000,000 tons to 1,800,000 tons. The reduction in wrought-iron is regarded as no more than the inevitable consequence of the advance in steel. Notwithstanding the development of the German iron and steel furnaces of the land have not been able to meet the demand. The author spoke of the excellent equipment of the German iron-works, and said that their appliances had to a large extent been based on those of American works, but were not mere copies of them. Among special features of German iron-making practise spoken of were the recovery of by-products from gases evolved in coke-making, improvements in mechanical appliances, the extensive adoption of the practise of carrying iron in the liquid state from the blast-furnace to the steel-works, the increasing utilization of blast-furnace gas, and the application of surplus power to the manufacture of cement from blast-furnace slag.

Mr. Axel Wallberg, reviewing Brinell's researches into the influence of chemical composition on the soundness of steel ingots, maintained that the percentage of carbon and the casting temperature, which had hitherto been considered the agents responsible for the presence and position of blow-holes, were to be regarded as exercising a secondary influence. The principal cause of the formation of blow-holes sometimes and in some steels containing 0.01 per cent of aluminum contained in the ingot metal at the moment of casting.

In a paper on the Properties of Carbon in the Hearth of the Blast-Furnace read before the Iron and Steel Institute, Mr. W. J. Foster showed that by increasing the temperature and diameter of the hearth more carbon would be exposed to the oxides, with proportionally less interruption by the gases that are decomposed in the neighborhood of the tuyères; hence more carbon would be converted into carbon monoxide in the hearth per unit of air introduced at the tuyères, and consequently an increased rate of driving would result.

In a paper on the overheating of low-carbon mild steel, Prof. Heyn, of Berlin, submitted as his principal conclusions that when low-carbon mild steel is annealed at temperatures above 1,000° C. there is an increase in the degree of brittleness, if the annealing process is sufficiently long. This increase of brittleness is considerable and manifests itself the sooner the higher the temperature of annealing. Prolonged annealing, say uninterrupted for fourteen days at temperatures between 700° and 900° C. there exists a temperature limit, above which, if annealing is carried on for a longer period and at an increasing temperature, the degree of brittleness increases. Below this limit, however, such is not the case. Overheating does not occur at most extreme white heat, but manifests itself at considerably lower temperatures, which must, however, exceed the temperature limit just referred to. By suitable annealing, the brittleness of overheated low-carbon mild steel can be eliminated. If annealing is carried on above 800° C., a short period of about half an hour is sufficient. Longer annealing must be the more carefully avoided the more the temperature limit between 1,100° and 900° C. is exceeded, otherwise the signs of overheating will reappear. Below 800° C. an annealing of even five hours is not enough to eliminate the brittleness in the overheated metal; but by annealing of one day's duration at temperatures between 700° and 900° C. this can be attained. If low-carbon mild steel which has been annealed for a longer period at a high enough temperature, so that after undisturbed cooling it
would show extreme brittleness, is rolled or forged during cooling to bright-red heat it will exhibit no brittleness when cold. The fracture of the overheated steel generally shows a coarse grain, although this is not necessarily always the case. The microstructure of both the structure of the iron is built up, which can be detected under the microscope by suitable etching, are often of considerable dimensions when in the state of the ingot. Next, the refined is not yet to be considered as proof positive that overheating has taken place, since the method of cooling also exercises a great influence over the size of the ferrite grains. Rapid cooling from the temperature causing overheating produces fine ferrite grains, without reducing the brittleness appreciably. Moreover, it is possible, by heating low-carbon mild steel for days together at between 700° and 800° C., to bring the material into such a condition that it will show exceedingly coarse ferrite grains, and yet not exhibit brittleness.

A new method of compressing steel during solidification and while still liquid in the ingot mold, which the author called "wire-drawing," is described. A liquid carbon is poured into the ingot mold it may suffer various changes in character, being subject to contraction, crystallization, and liquidation, with injurious effects upon its qualities. When the metal begins to cool, it shrinks from the walls of the mold, a solid steel shell is formed, enclosing liquid, and this continuing to cool, shrinks, becomes plastic, and attaches itself progressively to the shell, leaving a hollow corresponding to the shrinkage, and extending along the axis of the upper part of the ingot. The lower central part of the ingot also has porosities and tiny cracks, and fissures may be detected by the microscope pervading the whole mass. Injuries stresses are set up, crystals are formed having little cohesion between themselves, whereby the liability to crack is increased, and the metalloids that enter into the composition of the steel have a tendency to separate from the iron by liquation. The ingot, as cast, may therefore be useless, and require mechanical treatment to remedy its defects. The author's method is intended to effect compression on the steel while it is in the mold. Pressure is applied at the bottom of the ingot while it is liquid in the mold. Owing to the form of the modern ingot mold, tapering toward the top, the upper diameter is less than the lower part. By applying pressure from below, the ingot, which has shrunk on cooling, is thrust upward into the smaller part of the conical mold. The cooled shell thus presses on the central part, and the hollows due to shrinkage are not free to form. By hastening the solidification in this way the tendency to coarse crystallization is counteracted, and the tendency of carbon to accumulate in the part of the ingot where solidification last takes place is lessened. The process is called wire-drawing because of a supposed similarity between the protruding of the metal into the upper part of the mold to forcing it through a draw-plate. Advantages are claimed for this method over that of Sir Joseph Whitworth, who applied pressure from the top in that the pressure as applied by him is more effective and thorough. The author represents that with it production is increased 25 per cent.

The Blau-Thiel process as described by Mr. J. W. Cabot, the fluid iron from the blast-furnace charge was refined with 7 per cent. of quicklime; 10 per cent. of ore was added, and then a second ladle of iron. The charge was made of 15 tons. The pig-iron contained 3.70 per cent carbon, 1.35 phosphorus, 0.90 silicon, 0.40 manganese, and 0.05 sulfur. After boiling in the refiner two hours, 90 per cent. of the phosphorus and 95 per cent. of the silicon had been removed, while more than two-thirds of the carbon remained. The finishing furnace, containing 3 per cent. per cent. of lump lime, 7 per cent. of ore, and 7 per cent. of scrap, had been brought up to a temperature at which the slag had been skimmed off. After boiling two and a half hours the phosphorus was brought down to 0.01, and the bath was ready for tapping.

The belief that the percentage of graphite in iron is independent of the amount of silicon present is attributed by H. M. Howe to a wrong interpretation of the evidence. Mr. Howe shows that the graphite content in normal and relatively pure commercial pig-iron is influenced only indirectly by the percentage of silicon, in that silicon lowers the solvent power of iron for carbon, and thus lessens the proportion of combined carbon and increases the percentage of graphite, provided the total carbon remains constant; the decrease of combined carbon resulting from an increase in silicon rises from zero to 0.75 per cent., and then becomes slower and slower. The influence of silicon is often masked by that of the variables. Cast iron containing 3 per cent. of sulfur is known to be cast iron for carbon; by increasing the combined carbon content it lowers the graphite content. It is estimated that the proportion of combined carbon in pig-iron and cast iron for each 0.01 per cent. increase in sulfur when the iron contains from 1 to 2 per cent. of silicon, and 0.03 per cent. for each 0.01 per cent. of sulfur when the iron contains from 2 to 3 per cent. of silicon.

In well-equipped foundries, the cinder from the cupola is usually crushed in a tumbler and the shot separated from the pulverized cinder. C. H. Putnam further passes the pulverized cinder over a magnetic separator, and thus saves additional iron, recovering daily from the dump of two cupolas 550 pounds of siftings, which give 450 pounds of strongly mottled iron after melting. This iron is to be worked in with the regular cupola charge, in amounts to be found by experiment. The cupola iron is often used by the combined crushing and magnetic separation with two cupolas amounts to $3.

By the Giebel process of hardening steel it is claimed that all sorts of iron can be given strength and hardness double that obtained by the Harveys, Krupp, and Boehler processes, while the cost of production is reduced 50 per cent. Experiments made with it at the Technical High School, Charlottenburg, Prussia, were very satisfactory.

The objections have been made to the new methods of rail production that the rail made by them is so low in carbon and has so soft a head that the wear makes them useless in a much shorter time than the older rails of lighter section. It is claimed that these difficulties are obviated in the Cogn process, by which a rail is produced with a hard, tough face and free from scale and strain, showing a finer grain of steel in the head, and having from a third to a half superior durability to the usual rail.

Lieut.-Col. Davis, of the Naval Ordnance Bureau of the United States, has produced an armor-plate which, when tested at the proving-grounds at Bethlehem, gave results encouragingly high. It is claimed that the armor-plate has again overtaken the gun in the struggle for supremacy. This plate is obtained by a novel process, carbon being driven directly into the surface of the hot metal by an
METALLURGY. (TITANIUM-GOLD, SILVER, PLATINUM, AND MERCURY.)

intensely powerful current of electricity, the result being a face as hard as glass and of any thickness desired, supported by a tough back, which, it is claimed, can not be cracked. The depth of the hardening is regulated by the length of time the current plays upon the plate. It is claimed that an average plate can be completely treated electrically in five hours. Moreover, it is asserted that the plate is a third lighter for the same resisting power.

Among the advantages offered by nickel-steel, R. S. Tappender mentions the smaller liability, arising from its greater tension, of fractures when started to extend, than exists in common steel or iron. The elastic limit of nickel-steel is also much higher in proportion to its tensile strength than that of steel or iron.

Not many brands of hard tool steel can be used with the favorable influence as the preparation of the various cutting tools employed in the machine of modern armor-plates. A steel prepared by Serigeus Kern, of St. Petersburg, has the following composition:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tungsten</td>
<td>2.00</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>0.50</td>
</tr>
<tr>
<td>Carbon</td>
<td>0.30</td>
</tr>
<tr>
<td>Manganese</td>
<td>0.30</td>
</tr>
<tr>
<td>Silicon</td>
<td>0.18</td>
</tr>
</tbody>
</table>

The phosphorus and sulfur must be kept down as low as possible, on the average not more than 0.01 per cent. of the combined elements, of which not more than 0.01 per cent. should be sulfur. The steel is, and must be, prepared by the crucible process. Such a self-hardening tool steel is very convenient for the machining of hard metals.

A paper on the probable existence of a new carbide of iron, Fe₂C, was communicated by Prof. E. C. Campbell and Mr. M. B. Kennedy, of the University of Michigan, to the Iron and Steel Institute at its summer meeting in Dusseldorf.

TITANIUM.—In illustration of the importance of the metallurgy of titanium, Mr. Augustin J. Ross, in the Journal of the Franklin Institute, refers to the cost of the deposit of iron ores containing a notable amount of titanium oxide which occur all over the world in immense quantity, especially in the formations of Sweden, Norway, and Canada. The Crandallite, or titanium iron ore, of the Adirondacks. As a rule, these ores are Bessemer ores, usually free from phosphorus and sulfur, though not invariably so. It is obvious that with such ores the steel must be of a different metal as well as other equally rich in iron, they might form an excellent stock for blast-furnaces for years to come, as their supply might be called inexhaustible. The objections that have been already against the use of these ores are characterized by the author as unreliable, contradictory, and contrary to the facts. Mr. Ross's own experiments, and other evidence are cited to show that instead of the presence of titanium acid in blast-furnace slag rendering it insusceptible, such slags are worked without difficulty from that cause. An objection based upon relative economy of production is declared not valid, because of the better quality and higher value of the pig produced from the titaniferous ores. A general consensus of opinion is alleged to the effect that the pig smelted from really titaniferous ores, whether smelted alone or in important proportions, with other ores, is somewhat inferior. It can be said that iron from the Brazilian iron, "all that can be desired," etc. The addition of from 10 to 15 per cent. of titaniferous pig to a cheap grade of foundry pig raised the tensile and yield strength, and cut, at a cost of several dollars less per ton.

This titaniferous pig does not, however, contain titanium to any important extent. The influence of that element in the smelting seems to be that of a small amount of purification, eliminating oxides of the elements, than a direct one. The author has experimented with alloys of titanium and iron, and has found the presence of a small rage of titanium increases the fusibility diminishes. All the alloys, both with carbon and those free from it, are much lighter than cast iron, their specific gravities varying with the amount of titanium. Added to steel, titanium increased the ductility considerably. It has been suggested that titanium may have an indirect action besides its specific one, which depended on steel—acting not only as a deoxidizing agent, but also by removing from the steel the nitrogen which is undoubtedly present in it, and which has an unfavorable influence on its strength. Titanium burning in nitrogen at 300° C. with incandescence, as iron burns in oxygen. If such be the case, the use of the titanium alloy, even when containing carbon, would be well indicated, since the titaniferous ore could be used as a recarborizer on account of the high percentage of carbon it contains, as a deoxidizer (with or without ferro-manganese), and perhaps as a denitrogenizer; and since, in the case of small amounts of carbon for steel castings, the heat of formation of titaniferous acid, which is much higher than that of silicas, would prove advantageous in raising the temperature of the bath, even were it but a small percentage of titanium to remain ultimately in the finished product, there would seem to be, with suitable adaptations of open-hearth furnaces, a promise of the opening for these titanium alloys of a large field of usefulness and for the titaniferous ores a very important application.

Gold, Silver, Platinum, and Mercury.—The oxidized gold ores of the Lydenburg district, Transvaal, are composed of quartz, oxides of iron, and dolomite, and contain, besides the gold, small quantities of manganese, bismuth, silica, and copper. In the cyanide treatment of these ores, manganese dissolves only when an insufficient amount of lime is used, bismuth presents no difficulties, and 10 per cent. or less of silver is recovered. Copper, on the contrary, dissolves to the extent of 0.4 per cent., and collects in the metallic form on the amalgamating plates, while a small proportion is dissolved by the cyanid, with formation of compounds, as those in the same light as other ores equally rich in iron, they might form an excellent stock for blast-furnaces for years to come, as their supply might be called inexhaustible. The objections that have been already against the use of these ores are characterized by the author as unreliable, contradictory, and contrary to the facts. Mr. Ross's own experiments, and other evidence are cited to show that instead of the presence of titanium acid in blast-furnace slag rendering it insusceptible, such slags are worked without difficulty from that cause. An objection based upon relative economy of production is declared not valid, because of the better quality and higher value of the pig produced from the titaniferous ores. A general consensus of opinion is alleged to the effect that the pig smelted from really titaniferous ores, whether smelted alone or in important proportions, with other ores, is somewhat inferior. It can be said that iron from the Brazilian iron, "all that can be desired," etc. The addition of from 10 to 15 per cent. of titaniferous pig to a cheap grade of foundry pig raised the tensile and yield strength, and cut, at a cost of several dollars less per ton.

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per bottoms, which being granulated, oxidized, and resmelted with sulfur-bearing material, gave a second bottom very much richer than the first. The presence of some lead is essential to obtaining a perfect concentration. Six parts of lead to one of copper give satisfactory results; but the bottom from the second concentration was so rich in lead that it could be expelled, often directly, without any addition of that substance. The first bottoms could be resmelted directly with sulfur-bearing material without granulating and oxidizing; and the operation could be repeated until the concentration had reached the desired degree. The author also found this method satisfactory in smelting Cripple Creek ores in Colorado.

Platinum is a metal of great value to the chemist and the artisan on account of its melting only at an extremely high temperature and its resistance to the action of all acids except the nitrohydrochloric. It is largely used in chemical processes, in the forms of crucibles, dishes, spatulas, and files for wire. Its coefficient of expansion being nearly the same as that of glass, it has been largely employed in the construction of incandescent electric lamps for connecting the outside wires with the filament. It is used in the manufacture of contact points of telegraph-keys, in the pins for attaching artificial teeth to the plate, in stills for the concentration of crude sulfuric acid, when it is alloyed with about 3 per cent. of iridium; to some extent in jewelry; in the manufacture of platinotype paper for printing photographic plates in the case museum, for chemists' balances, for surgical and other scientific instruments, for making balance-wheels and hair-springs of non-magnetic watches, for obtaining a silver color on porcelain, for producing what is called "oxidized silver," and for the fuses of electrically exploding dynamite cartridges. Although platinum has been supposed for many years to exist in New South Wales, its actual discovery there in paying quantities dates only from 1893. The amounts at present obtained are limited, the chief difficulty in the way of production being the scarcity of water in the districts where it occurs. It is found in the native state alloyed with iron, iridium, osmium, and other rare metals. It usually occurs in grains or scales, sometimes in irregular lumps or nuggets, more rarely in crystals. In the Fifield district, about 322 miles west of Sydney, it is associated with gold, the metals occurring in fairily coarse water-worn grains, confined as a rule to the cavities of the bed-rock, and to the wash-dirt for a few inches above it. As compact platinum does not amalgamate with mercury in the cold, it can easily be separated from gold by means of that agent. Platinum is also found in the beaches of the northern coast of the state of New South Wales, where it is obtained from the auriferous sands. There the gold, platinum, etc., which are concentrated in the beach during stormy weather are brought down by the action of the waves from an ancient beach deposit which occurs at an elevation of about 6 feet, and which has locally received the name of "black rock." The only other form than those mentioned above in which platinum is found is that of an arsenide, in the mineral sperrylite, which occurs in minute cubic octahedra, usually having a tin white color and a black streak.

In the treatment of cinnamon or ores at the works of the Marla and Mariposa Mining Company, Bremerton, Oregon, T. E. B. Spalding, the crushed ore is charged hourly by a car holding 900 pounds, and every half-hour half a car of spent ore is withdrawn below. It takes the ore about twenty-four hours to pass through the furnace. The fumes leaving the furnace by a 16-inch sheet-iron pipe, zigzag through 6 condensers, each with a partition wall before they pass through a long flue into the air. The condensers are dry on account of the scarcity of water. Most of the quicksilver collects in the first three chambers, which are freed from soot weekly, while the other three have to be cleaned only once a month. The condensed quicksilver runs off continuously into a storage-tank to be bottled. The soot is freed from a large part of its quicksilver by working on an inclined plane, where it is added in small amounts to the ore charge. The yield in quicksilver is estimated to be 60 per cent. In five months, 1,200 flasks of quicksilver were produced.

Aluminum.—A purity is said by W. Murray Morrison to be attained now in electrolytic aluminum of 99.3 and 99.6 per cent., the impurities being 0.25 per cent. of iron and 0.17 per cent. of silicon. Another example analyzed by Prof. E. Wilson gave 0.31 per cent. of iron and 0.14 per cent. of silicon. Such a standard of purity has been only gradually obtained. Many attempts have been made to increase the conductivity and by increasing the liability to atmospheric corrosion. The evidence is somewhat conflicting as to the power of aluminum to withstand this. The impurities in fact, which are not present in the whole the metal seems fairly satisfactory in this respect. The thin film of oxide which immediately forms on its surface in air acts as a protective coating. The usefulness of aluminum in metallurgy, of which much has already been said in previous volumes of the Annual Cyclopaedia, is continually becoming more apparent and better appreciated. Of the part it plays in this field, Mr. Morrison speaks of the improvement secured to the finished product through the addition of a small quantity of aluminum (from 2 to 5 pounds per ton) in the casting of steel, iron, brass, and other metals, when the aluminum combines with the occluded gases, with the effect of reducing the blow-holes and rendering the metal which is being cast more fluid and ultimately more homogeneous. Much has been learned from the application of Dr. Goldschmidt's use of aluminum for producing high temperatures to the welding of rails, pipes, etc. (noticed in the Annual Cyclopaedia for 1901), which has not yet become of commercial importance. By virtue of the low specific gravity of aluminum it is used in cases in which weight is a drawback—in naval and military equipments, motor-car construction, and like applications—in which the metal finds considerable and increasing employment. For cooking utensils, for which it is eminently suited, its use is steadily gaining in favor. In addition to the general use of aluminum is its low tensile strength. This may be improved to some extent by alloying with a small quantity—less than 10 per cent. of nickel or copper. A standard table has been prepared by Prof. Wilson incorporating data with reference to some of these light alloys. Substituted for copper in electric conductors aluminum alloys with wider spans; but when insulated cables are wanted for low-tension work, the increased diameter of aluminum conductors involves increased cost in insulating material. In lead-covered covered, T. E. B. Spalding, the crushed ore is charged hourly by a
crease in weight caused by substituting aluminum for copper. For high-tension cables, aluminum may possibly be in some cases cheaper than copper. The author suggests that since the cost of power required for the electrolytic conduction of aluminum is higher than that of any other electrolytic manufacture, it will be advantageous to use water-power. The metal of the castings has been increased by recent processes.

It is shown by Prof. T. W. Richards that in the classification of alloys of aluminum the useful ones fall into two groups—those in which small amounts of another metal are present with aluminum, and those in which aluminum is added in small amounts to other metals. Generally speaking, according to William Campbell and John Mathews, the metal present in the smaller amounts should not exceed 15 per cent.; and in alloys of the first class much smaller proportions give the maximum improvement in the alloy, hardness being one of the qualities most sought. Aluminum seems to be able to take up considerable quantities of certain metals without undergoing any change of volume, thus density and probably the hardnesses are improved in such cases. Aluminum seems to form intermetallic compounds more readily than any other single metal, and it is the metal of the alkalies.

On the other hand, there are several metals with which it will not combine or even mix to give homogeneous alloys except when the added metal is in very small quantities. Among the metals of this class, lead, bismuth, and cadmium may be mentioned.

Specimens of alloys of aluminum in the form of wire 0.126 inch in diameter were placed by Prof. E. Wilson on the roof of King's College, London, where they remained about thirteen months, in order to investigate the effect of exposure to a London atmosphere. The percentage of decrease in weight had a somewhat wide range, according to the conditions. Corrosion increased with the percentage of copper. Nickel alloyed with copper had the effect of slightly increasing the weight during exposure. The conclusion was reached that copper alone should not be used in light aluminum alloys. The presence of equal amounts (about 1 per cent.) of copper and silver was found to improve the resistance resistant to a small extent, but the gain in mechanical and non-corrosive properties was great.

From tests made at the Zurich Polytechnic Institute of aluminum bronze, furnished by the Neuhauzen Aluminum Company, it is found that the specific gravity of the metal first rises and then falls, as the percentage of aluminum increases. The maximum strength had a somewhat wide range, according to the conditions. The author reports that certain conditions. The density of the metal, for brass, the elasticity decreases with the increase of silicon, and increases with 2 per cent. of it. Iron in the proportion in which it is present in the alloys was not observed to influence sensibly the physical characteristics. Aluminum bronze containing 10 per cent. of aluminum with 1.5 per cent. of silicon and iron is too brittle to be of any practical value. As regards abrasion by friction, the hard alloy containing less than 6 per cent. of copper, lost little in weight, while the soft alloys, with less than 6 per cent. of aluminum, heat and wear away rapidly.

The addition of a small quantity of aluminum has been found by E. S. Sperry advantageous in the manufacture of German silver. It greatly improves the qualities of the alloy, causing it to fill the molds completely and entirely preventing the formation of blow-holes. Less than 0.05 per cent. of aluminum is required to impart this quality. The addition of larger proportions, as from 3 to 3.5 per cent., gives the metal qualities that make it more like tempered steel than any other of the non-corrosive alloys. Hard and stiff bars can be worked and machined. As the best formula for this hard alloy, Mr. Sperry gives: Copper 37, nickel 20, zinc 20, and aluminum 3 to 3.5, according to the stiffness required.

Tin.—In the process of Paul Bergsroe for the electrolytic recovery of tin from sea- and waste alloys, the tin-bearing materials are reacted upon by stannic chloride, and the stannous salts formed are subjected to electrolytic treatment. In theory, the process is identical with the present process for extracting copper, which depends upon the varying valences of the metal. This process consists in bringing a salt of copper in a higher state of oxidation into contact with the ore, whereupon copper passes into solution and the solvent is reduced from the cupric to the cuprous condition. This solution is then electrolyzed with impurities which are prevented from depositing one-half of its metal, with restoration of its valence and solvent power and recovery of an amount of metal equivalent to that the latter was dissolved. The fact that iron has been employed in practice the very serious obstacle of a low reaction velocity—a solvent action so slow as to render its application to the most commonly occurring ores of copper, the sulfides, of doubtful practicability. From this defect the tin process is free, for the stannic salts are energetic solvents. The successful treatment of tin scrap, however, has proved in the past a difficult problem, on account of its very low tin content and because of the tendency of the iron to pass with the tin into solution. The industrial value of the new process as applied to this purpose is therefore yet to be investigated.

Two electrolytic processes for the recovery of tin from tin scrap as carried out in work in Germany are described in an anonymous article in the Zeitschrift für Elektrochemie for 1891. One of which is based on the use of scrap as anode material. In one the bath contains sodium chloride and hydrate; in the other, hydrochloric acid. It is an advantage of the first that iron gets into the solution; but, on the other hand, the energy efficiency of the process is lower, and when it is used, the deposit obtained at the cathode is more spongy. The failure to get metallic tin directly is a disadvantage of both processes. The metal can, however, according to the article, be obtained in the electrolytic bath under certain conditions. Pfenninger has suggested that avoidance of the formation of sponge may be simply a question of maintaining the concentration of the tin-salt solution near the cathode—a condition which appears to be difficult in works treating tin-scrap on an industrial scale. The problem of producing metallic tin at the cathode is complicated further by the slow, gradual increase of impurities in the electrolyte. Of several works that have been built in Germany for carrying out the electrolytic process, the largest is that of Goldschmidt at Essen, where 300 to 300 tons of copper are treated in this way. Other works have been or are being built in Austria and Germany, and a company was formed in England in 1901 to operate an electrolytic works.
In the Gelishart process for the electrical separation of pure tin from waste tin cuttings, the tin is recovered by electrolysis, and the cleansed iron is sold as best scrap or is converted into green copperas, which may be further converted into red oxide or Nordhausen sulfuric acid. The electrolyte in the stripping tanks is a 11 per cent. solution of commercial hydrochloric acid, to which is added a small quantity of oil of vitriol.

Copper, Zinc, Nickel.—In poling copper Mr. E. S. Sperry leaves the reduction of cuprous oxide incomplete, in order that the traces of bismuth, arsenic, and antimony in the copper remaining shall be present as oxides, where they are less harmful than as metals. Small amounts of cuprous oxide are liable to make copper somewhat cold-short, but not hot-short; hence the metal is rough rolled hot and finished cold. In making brass, some of the zinc is purposely added at the expense of the metallic oxides contained in the copper.

In experiments made to see what effect the oxygen of the copper had in brass-making the copper was polished and then exposed to a matted condition to the air. Analysis gave from 1.2 to 1.52 per cent. of oxygen. Oxidation with niter proved unsuccessful. The base composition of the brass obtained was copper 41.63 per cent. and zinc 40 per cent. The experiments showed that the amounts of oxygen usually contained in economical copper (from 0.010 to 0.012 per cent.) have no effect on the quality of brass intended for rolling into sheets; the oxygen may reach even 0.55 per cent. and do no harm if specific care be taken. An excessive amount of oxygen causes the formation of a salamander, a mixture of insufible zinc oxide and copper. If oxygen is present in not sufficient amount, it forms a salamander, but in the proportion of about 0.55 per cent., the brass will show a tendency to crack, owing to the presence of zinc oxide.

In a process for copper-matte concentration described by Thofhelm and St. Seine (Oesterreichische Zeitschrift), a mixture of air, superheated steam, and silica is blown into a bath of molten matte or crude metal in a reverberatory furnace. A rapid oxidation and scorification of the metal takes place and the difference between the slag with the bath, the action of the blast being to drive the slag toward the skimming doors and keep the bath of metal in the blast zone uncovered. The walls of the furnace are not affected during the scorification. The process is applicable to furnaces of large size.

The duction that barytes in zinc ores is injurious by causing the formation of a sulfd of the zinc has been contradicted by the experiments of Prof. Prest and others. The evidence of these experiments is confirmed by the studies of K. Sander, who charged 10 retorts with 400 kilograms of roasted blende containing lead and 9.2 per cent. of barytes, and another set of 10 retorts with roasted blende free from barytes. The residue from the former set of retorts assayed 2.70 per cent., and that from the latter 3.54 per cent. of zinc. In a repetition of the experiments the percentages of zinc in the residues were 2.08 per cent., and 2.92 per cent., respectively.

In the application of the Mond nickel process to the Sudbury pyrrhotite, the ore is roasted and melted to a matte containing about 20 per cent. of nickel. In the process, this product containing 18.62 per cent. of copper, 31.37 per cent. of nickel, and 0.7 per cent. of iron. The matte thus concentrated is dead roasted and treated with sulfuric acid. The melt contains two-thirds of the copper and from 1 to 2 per cent. of the nickel are extracted. The residue after drying the impurities to 40 to 60 per cent. of nickel. It is treated in charges of 500 kilograms with water gas in a reduction-tower at a temperature of not more than 300°C. The tower is fitted with 14 hollow shelves heated to 250°C, on which the material is raked from one to another to the lowest shelves, which are cooled. The reduced copper is then transferred to another similar tower called the volatilizer, in which the metal is treated with carbon monoxide at a temperature not exceeding 100°C. The residue from the volatilizing tower goes back to the reducing tower, and the charge is thus passed back and forth from tower to tower for from eight to fifteen days. When 60 per cent. of the nickel has been volatilized as carbonyl, the residue is returned to the roasting furnace. The nickel carbonyl is treated to decompose by this treatment, in which the nickel is recovered as granules of from 99.4 to 99.8 per cent. purity.

Alloys.—The Committee on Alloys reported to the British Association for the advancement of science, which it was formed had been completed, and a summary of the results had been published in the Proceedings of the Royal Society. The work consists in a study of the solid solutions and solid substances to be found in alloys composed of copper and tin. The report shows that at least three series of solid solutions are formed during the hardening. The first series, which may be called Alpha, consists of crystals isomorphous with pure copper and varying in composition from pure copper to an alloy containing about 9 per cent. by weight of these alloys solidify to a uniform mass, and apparently remain unchanged at all lower temperatures. The second series, which may be called Beta, contains percentages of tin varying from 22.5 to 32. Alloys containing between 9 per cent. and 22.5 per cent. of tin solidify as a complex of crystals of Alpha and of Beta. But all such alloys having from 9 to 32 per cent. of tin undergo important recrystallizations after they have been solidified, and their final condition below 500°C. is that of a complex of Alpha and of a crystalline body which is probably Cu7Sn. Alloys from 32 to 43 per cent. of tin are rendered plastic in the production of a third type of crystalline solid substance, which may be called Gamma. But the Gamma crystals break up at lower temperatures into a of the furnace. The alloys containing 9 per cent. of Cu7Sn and another substance. The alloy of the formula Cu7Sn is apparently a solid solution when first solidified, and is not converted into the compound until a lower temperature is reached. Gamma crystals containing more than 41 per cent. of tin have the peculiarity that, in cooling, they break up into solid Cu7Sn and a liquid. Between 57 per cent. of tin and 43 per cent., the first solid that forms when the liquid alloy begins to solidify consists of Cu7Sn; but, when the temperature falls to 400°C. these crystals become unstable, and a reaction takes place between them and the liquid, which results in their partial transformation into a body which is really a quite pure Cu7Sn. Between 83 per cent. and 99 per cent. of tin, the substance Cu7Sn is the first body formed during solidification. Between 99 per cent. and 100 per cent. tin appears to crystallize first. The paper closes with a summary of the condition of the alloys at common temperatures, it being assumed that they have been cooled with sufficient slowness.

Fuels.—A paper on smokeless fuels read in the Engineering College by about two-thirds of powdered coal as promising to be the cheap-
est and most available, but found the greatest hope of relief from smoke to be in learning how to burn the ordinary fuels smokelessly. Much might be done by useful firing alone. No patent device would work satisfactorily with careless firing. Special devices were divided by the author into four classes: 1. Steam jets above and below the grate were reasonably effective, but were not economical of fuel. They should be turned on at the time of firing, and turned off in two or three minutes after the fuel has ignited. 2. Cooking-furnaces or fire-brick arches were capable of giving almost perfect results if properly designed and intelligently operated. They were best adapted for plants where the service is reasonably uniform. 3. Downdraft furnaces have proved very successful, and have come into extensive use where excessive demands for overwork are frequently made. One form was mentioned which operates grate above the other, the bars of the upper grate being water-tubes connected with the circulating system of the boiler. The gases must pass downward through the bed of fuel. 4. Automatic stokers, including fan devices and chain-grates, have come into use in large modern plants. Their first cost and the expense of repairs are high, but they save materially both labor and fuel. They are not all equally well adapted to all fuels, and the question should be studied out for each one separately. 5. Powdered fuels have been employed successfully in cement kilns and pulp mills. The plant necessary is somewhat elaborate, and as the fuel is liable to spontaneous combustion it must be produced as it is used, and thus can not be stored or handled. Questions of dust combinations of these five types are frequently made, as, for instance, the fire-brick arch with the mechanical stoker and steam-jet. On locomotives and steamboats, brick arches and steam-jets have given the best results. Oil is used also. But no apparatus or device can dispense with intelligent handling.

The subject was treated in papers in the section of engineering of the British Association, when Mr. W. H. Booth pointed out the difference between long and short flaming coal, and discussed the effect of volatilizing solid hydrocarbons on the distribution of temperature in a furnace and the production of heat at and beyond the grate surface. Though less heat was produced at the grate surface, the total heat produced or of bituminous coal was eventually secured if suitable furnace arrangements were provided for the purpose. The bad effect of cold water-pipes in the path of the furnace gases was referred to. Though as bad as usually fixed, the common form of water-tube boiler could easily be set so as not to produce smoke. The furnaces should be so arranged that all the gaseous products work together with all the admitted air, and not be cooled down until sufficiently burned to admit of being used. For this purpose furnace lining should be non-heat absorbent. The author was that smokeless combustion of bituminous coal was as easy and certain as the reverse method.

Mr. J. S. Raworth described a system of preventing the formation of smoke in a boiler furnace by injecting a mixture of air and nitrate-of-soda solution upon the fire. Owing to the growing scarcity of good coking coal in Great Britain and on the Continent of Europe, efforts have been made to improve the quality of the coke derived from the output of inferior coal-seams. Experiments and apparatus for compressing the fuel before coking were described by Mr. John H. Darby at the meeting of the British Iron and Steel Institute in May. The essential appliances of the apparatus are stamping-machines and compression boxes for preparing the coal for the coking ovens. In the result it was found by the author that the compressed coke was considerably denser than the ordinary coke, the lumpes were larger and firmer, and the breeze, or small, coke was greatly reduced in quality. A cognate paper was that of Mr. J. Thirion on the recovery of by-products in coke-making. The Otto Siemens oven was described in detail, and the gases produced were shown by the analyses to be very pure when freed from the by-products. Further, a high-class coke, both as to quality and yield, was obtained.

The briquetting process, according to a paper by Mr. W. C. Irwin, is applied in the United States to mineral fuels, fine ores, fine dusts, and ores of the precious minerals. In briquetting minerals, lime is used as a binder. In briquetting coal, the coal is reduced to pulp, heated to from 100° to 200° F., and cemented by the warm binding material, without altering the chemical composition of the coal or the binder. It is pressed at 5 tons to the square inch. Coal is briquetted with petrol and coke. Both are used by smelters in the West, by briquetting their fine dusts and slimes, save from 20 to 50 per cent. of their ore. Bricks are made so hard by means of the improved mineral presses that the danger of crumbling is avoided. Fine iron ore is briquetted at many iron plants at a total cost of less than $1 a ton. In large smelting-works where great quantities of dust arise the authors recommends a practicable means of disposing of the dust and removing a dangerous explosive.

Furnaces.—The novel features of a proposed method of combining the blast-furnace and the open-hearth furnace described by P. Evermann consist in the employment of blast-furnace gas in the open-hearth furnace, in arrangements for improving the quality of the gas, and in the application of air-nozes to one of the hearths.

An apparatus described to obviate the difficulty met in storing dust fuel arising from its liability to spontaneity combustion and its property of absorbing moisture has provision for the creation of a supply of powdered fuel as fast as it is consumed. It comprises a crusher in which the raw coal is pulverized into the size of a piece of wheat coal; a drying furnace, which is used when the coal contains more than 6½ per cent. of moisture; a grinding-machine; an air-separator, with elevators and storage-bins; and a burner through which the dust fuel is admitted to the boiler-furnace. In the grinder the crushing action of metal balls is used. These are held loosely in pockets in the circumference of a rotating disk enclosed by a steel ring. The air-separator is provided with a fan so arranged as to lift the fine dust from a central shoot to an external annular chamber, while its coarse particles fall down the central passage and return to the grinder. The finished dust is fed automatically by a vertical pipe from the storage-bin to the burner, which consists of a short horizontal pipe with a nozzle for a jet of compressed air placed centrally. The air and coal-dust issue well mixed and in the manner of a stream of gas issuing from an orifice.

Damage to the ends of air-blast pipes by the high temperature is prevented in a new system invented by J. Foster, in which the water is not applied under pressure, but is aspirated through the tuyère by suction; and the tuyères are cooled.
in such a way that leakage of water into the furnace is prevented. When a tuyère becomes dam-
aged or breaks, inserting a new one in the furnace, air tends to enter the tuyère and to de-
stroy the vacuum, and the molten iron and slag usually close up the hole immediately. The vacu-
um system possesses several collateral working advantages, among which is the rapidity with
which a defective tuyère can be removed and replaced by a sound one.

Electrical furnaces are described by C. E. Ja-
cobs having pure carbon block linings, reenforced by magnesium or chalk blocks or other poorly
conducting material, with which a temperature approaching 4,000° C. may be obtained and con-
mmercial work carried on at temperatures of from 2,500° to 3,000° C. In such furnaces at high
temperatures silicids of the alkali-earth metals—
CaSi, BaSi, and SrSi—are formed when oxides,
carbonates, sulfates, or phosphates of the metal
are mixed with silica in suitable proportions
with carbon to reduce them; or by mixing al-
kaline earth silicates with carbon. These sili-
cids are white or bluish-white, with metallic
appearance, oxidize slowly, and decompose water
with evolution of hydrogen. With dilute hydro-
chloric, nitric, or sulfuric acids calcium chlo-
rid and silico-acetylene—Si,H,—as a yellow
crystalline solid. When heated in a close tube
these substances give hydrogen and amorphous
silicon. Barium nitride treated with water is a
cheap and convenient source of hydrogen when
it is desired to obtain that gas on a large scale;
and is efficient in operations of reduction. It
can also be used in purely mechanical solutions.
Melt-

ed with iron containing sulfur or phosphorus, the
alkali-earth silicids form sulfides or phosphides
of the alkali metal, while the silicon unites with
the iron. By oxidation the sulfides or phosphides
become sulfates and phosphates, and pass into
the slag; and it is represented that in this way
sulfur and phosphorus have been entirely re-
moved from iron.

An electric furnace for steel smelting was com-
mpleted at Gysinge, Sweden, in 1900, and on the
experimental trial was found to produce steel of
excellent quality, but not on the scale then
adopted. Larger furnaces, working on a commer-
cial scale, have since been erected. The steel
produced is described by F. A. Kjellin, engineer of
the works, as having superior quality and
characterized by strength, density, uniformity,
toughness, and ease of working in a cold, unhard-
ened condition, even when containing a very high
percentage of carbon. Compared with other
steels it has less tendency to crack or warp when
hardened. The manufacture of special steels, as
nickel, chrome, manganese, or wolfram, is not
considered likely to meet with any difficulties.
The chrome steel and wolfram as produced at
Gysinge have proved to be excellent for lathe
tools. When used for permanent magnets, the
Gysinge wolfram has been found to give stronger
magnets than other wolfram steel, and has not
wasted in the hardening. The furnace also prom-
ises to be economical in operation.

The Chartier oil-melting brass-furnace consists of
a cylindrical iron casing lined with fire-brick,
set on axial trunnions, turned by a hand wheel,
fed at one end by an oil-air burner. The products
of combustion pass through a hopper into which
the brass to be melted is dropped. With oil
at 4 cents a gallon, the cost is 15 cents per hour.
Natural gas may be used. The furnace at the
J. M. Comly Mfg. Co.'s mills, Philadelphia, melts
600 pounds of copper-tin bronze ingots in one
hour, and 600 pounds of turnings in two hours.

Processes and Apparatus.—The Stassano
electrometallurgical process aims at replacing
the chlorination process of coal in the metallurgy
of iron by the electric arc. The roasted and powdered ore is first passed through
a magnetic separator in order to prepare a ma-
terial rich in iron. This is analyzed, and the
amount of carbon required for its reduction
is calculated. The mineral is next mixed with
the necessary amount of powdered wood charcoal
and tar, the percentage of carbon in which is known,
and a slag-forming material, and is made into
briquettes. These are then introduced into the
electric furnace. The chemical reaction is at first
very lively, but becomes quieter after a time, and
the amount of heat necessary continually de-
creases. A furnace of 150 horse-power will yield
in from one-half to three-quarters of an hour
nearly 30 kilograms of wrought iron. By varying
the amount of carbon added according to the
analysis which has been made previously, it is
possible to prepare a cast-iron of a certain fixed
percentage of carbon. A plant is at present work-
ing at Darfo in the province of Brescia, Italy,
and uses a fall of 30 meters of 5 cubic meters of
water per second.

In a new working process by S. Baldy, Sr., of
Chester, Pa., a master-mold having been made
from the original pattern, a number of fusible
patterns are cast in it. The fusible pattern is
then put into a mold, which is filled with sand
by means of compressed air. On exposure in the
drying-oven, the fusible flask is melted out,
after which the casting is made in the dried mold.
Skilled labor is thus eliminated. Melted-

ed with iron containing sulfur or phosphorus, the
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dustries, in the drawing of sheet metals in the press. One of the limitations of the method arose out of the difficulty of holding the sheet during treatment. In forging steel, small articles were produced satisfactorily in quick-acting drop-presses; large articles demanded the slowly acting hydrostatic press. In dealing with the problem of cutting action, the author pointed out that cutting was largely composed of shearing. In turning mild steel, for example, the tool acted by compressing the material in front of it until ruptures occurred by shearing in front of the chip. In an extremely plastic substance, or one which was both elastic and plastic, chips could be removed without shearing action, because they would be sufficiently elastic or plastic to bend or flow without rupture, and would permit the passage of the tool. In planing wood with the grain, the chips would not be removed by intermittent shearing, but, if ruptured at all, would be ruptured by bending. Should rupture occur in advance of the cutting edge of the tool, perfect cutting action would cease, and rupture of the chip would not be an essential part of the cutting action. Passing to the action of grinding machinery, the author pointed out that the removal of metal by abrasion at high velocities produced pliability due to the heating of the particles removed.

Facts respecting the workings and economy of installations of electric machinery for the transmission of power were given in a paper read by Mr. D. Selby-Bigge at the summer meeting of the Iron and Steel Institute. In one of the Westinghouse Company's works a reduction of more than 20 percent in coal consumption was made by the adoption of electric transmission. An article was quoted from the journal Traction and Transmission in which it was said that the saving due to the electric transmission of power was probably nearer 60 per cent. than 50 per cent. In a colliery the sum of £1,500 was saved per annum at one shaft by the use of electric motors for pumping. In another colliery, where the pumps were originally driven by endless wire rope, the expenditure of a little more than £3,000 in electric plant resulted in the annual saving of between £2,000 and £25,000. The author quoted a Scottish colliery, and other details were set forth as to the cost of labor and material for driving by electricity and other means of transmission as well as in favor of the former. The importance of utilizing gas from blast-furnaces was also dealt with in this paper. Gas-engines have been driven in this way, and they should be made to actuate blowing-engines or dynamos from which currents could be distributed throughout the works. At Seraing a Cockerill gas-engine of large size used about 100 cubic feet of average blast-furnace gas per effective horse-power per hour. This was less than one-fourth of the gas that would have been burned in the boilers of good modern condensing steam-engines. It is estimated that for every 100 tons of coke used in an ordinary Cleveland blast-furnace there is a surplus of at least 1,500 horse-power. "It would be impossible," the author said, "to overtake this new development in power production." The sources from which electricity can be produced most economically for the transmission of power when sufficient sources of water-power are not available will undoubtedly be due to the development of large power-gas-engines making use of the surplus gases from the blast-furnaces, which would otherwise be wasted.

Metallurgy. The finest monochromatic shades can be produced on platinum and German silver by the electrolytic decomposition of manganese salts, the metal to be treated being connected with the positive electrode. In determining the strength of the metal solution, the power of the electric current should be considered; the weaker the current the stronger the solution should be. The color produced changes greatly and quickly, so that when the current is once applied, the instant the color desired has been produced. Golden yellow, green, and purple are obtained with particular brilliancy. The metal should be removed from the bath as soon as the current is stopped; rinsed with distilled water; and carefully dried with soft blotting-paper. If manganese chloride or lead acetate is used, the colors appear in rings instead of as a uniform layer, and of all the colors of the rainbow in the softest shades—the paramount hues being green, golden yellow, and blue, while each whole system of rings is surrounded by a yellow zone.

The observation is made by G. P. Blakiston that pieces of wrought iron or steel in crucibles or open-hearth furnaces melt inside first, leaving an outer film which is later in melting. The author's explanation of the phenomenon is that the melting-point of the outer layer is made higher by oxidation, while the melting-point of the high velocity unoxidized metal within is not greatly due to the heating of the particles removed.

Finding from comparative examinations of their microstructure as revealed in ends that have been saved that rails that have been hot-sanded are finer-grained than those which have been cold-sanded, S. S. Martin infers that it is best to work the iron while it is hot, with a low temperature for finishing; but that the severest microscopical test is obtained with cold-sawed rails.

An important paper on the metallurgy of the cupola was read by H. E. Field before the American Foundrymen's Association, and is published in the Age of Steel for July 5, 1902.

Rails that had failed in service which were examined by R. Job were found to be characterized by a coarse, regular granular structure and by containing an excess of foreign matters, such as oxides, slags, and occluded gases; while rails of the same general composition which had proved satisfactory in service were relatively free from foreign matter and gas, and presented a generally fine granular form, interlocking and broken up.

An invention which has been tested in Chicago for applying electricity to the cutting of iron or steel includes a carbon attached to a wooden handle by means of a metal clamp; to this clamp a wire is fixed, which is connected at the other end with the object to be operated upon. As the carbon is moved along the object it cuts its way through even such metals as Bessemer or chrome steel. In the case of the Chicago experiment, a wide space was cut away in the plate of a large boiler foundation which was to be removed, at the rate of about one foot every five minutes.

From the investigations of the sulfur contents of slags, described by Baron Juptner at the meeting of the Iron and Steel Institute, the following conclusions were drawn: If during metallurgical processes a state of equilibrium is established between the slag and the contiguous metallurgical product under treatment, the sulfur distributes itself between the two in a constant ratio—the coefficient of distribution—the value of which is dependent on the composition of the two phases under consideration and the temperature. In general the value of the coefficient of distribution increases with the basicity of the slags. It increases also apparently with the proportion of lime and manganese oxide, and probably also with that of fer-
rous oxid and zinc oxid in the slag. In the case of alloys of iron it increases and diminishes with the introduction of the capacity of the slag. The same law holds good with respect to the influence of a higher percentage of lime and manganous oxid in the slag. The conclusion reached regarding the composition of the iron of iron alloys may be explained by the supposition that the capacity of manganese, and perhaps also that of iron carbid, or at least of iron rich in carbon, to absorb sulfur is very low, while that of pure iron and phosphid of iron is very high. These facts show that in metallurgical operations in general it is impossible to eliminate entirely from the product the whole of the sulfur contained in the charge. The extent to which desulfurization can be carried depends on the coefficient of distribution—that is, upon the composition of the two phases occurring during the process. For this reason, the desulfurization of iron rich in carbon and manganese (ferro-manganese and pig-iron) is more complete than that of iron low in carbon and manganese, such as the irons produced by the open-hearth of the Bessemer process. In the Bessemer process, the phosphorus exhibits an additional counter-influence to desulfurization; but, it is available only when the phosphorus is largely decreased; in such case, however, the carbon and the manganese have almost entirely disappeared. In order, therefore, to lower the sulfur down to the lowest possible margin of iron which is very low in carbon and manganese, we must select a charge that contains the lowest possible sulfur, consisting of pure iron or iron that has been desulfurized; or must repeatedly remove the old slag, permitting the formation of new slag. In this method a mixer could be employed with good effect, since it supplies a raw material low in sulfur, and its use also necessitates the removal of the mixer slag and the formation of new slag. The possibility is suggested of a third phase, a mixture of oxides and sulfids, occurring together with the slag and metal. The phenomenon seems to occur during certain segregations.

Experiments were carried on at McGill University, Montreal, by Prof. Anderson and Nicholson, in which filings or turnings of brass, iron, copper, and other metals were forced under pressure into solid bars of metal differing very little in appearance and strength from such as are found in ordinary use. By bringing a pressure of five pounds to the square inch to bear upon them, the filings or turnings were welded into a solid whole. They were first encased in a jacket made of steel and conical in shape. At the end of ten minutes of continued pressure the tube was removed and opened, when a solid bar of metal was found. It was even found easy to solidify the filings of Pittsburgh brass, which is perhaps the hardest brass manufactured. The metal proves to yield readily to pressure.

METHODISTS.

I. Methodists Episcopal Church.—This Church comprised in 1902 129 annual conferences, 11 mission conferences, and 15 missions. The following statistics are given in the Methodist Year-Book for 1903: Number of bishops, 21; of ministers in full connection and on trial, 17,922; of local preachers, 14,024; of lay members, 1,830; of Sunday-schools, 32,669, with 351,402 officers and teachers and 2,738,429 pupils; of churches, 27,875, valued at $29,408,211; of parsonages, 11,742, valued at $20,515,059. For missions (church, $301,565; Sunday-school, $431,679; Woman's Foreign, $306,499; Woman's Home, $296-908), $2,038,651; for church extension, $145,499; for the Sunday-School Union, $25,502; for the Tract Society, $1,830; for the Law Book Fund, $218; for education, $280,072; for the American Bible Society, $30,955; total, adding $1,785, the distribution of which is not indicated, $2,678,182. The number of members at the beginning of the year of 47,257 with 61,316 pupils added in Sunday-schools. The increase in benevolent contributions was $307,501. The enrolment of the Epworth League comprised 21,398 senior chapters, 8,082 junior chapters, 202 affiliated Christian Endeavor Societies, and 100 affiliated Junior Endeavor Societies. That twentieth Century thank-offering fund of $20,000,000, was to be applied to purposes of education in the United States and foreign lands, charitable and philanthropic work, city evangelization, support of conference claimants, payment of debts on church property, and any specific objects in mission fields, which was undertaken on the recommendation of the bishops in 1898, was completed in the later months of 1902.

Committee of Church Extension.—The General Committee of Church Extension met in Philadelphia, Nov. 5. The receipts for the year had been, on the General Fund, $183,694; on the Loan and Annuity funds, $455,388; making the total amount available for use, $619,082. Three hundred and thirty-eight churches had been aided. The total receipts of the committee from its beginning in 1865 had been $7,738,781, and the whole number of churches aided had been 12,356. The committee had been committed in making additional grants and conferences beyond the amounts regularly appropriated to them by occasional frontier and memorial gifts of $250 each; and it desired to form a new Permanent Building fund, to be administered on frontier conditions. The work of building frontier churches by the application of special gifts of $250 each had been largely extended. More than 700 churches had been made possible by this form of donation. By the aid of these gifts churches are erected worth $1,250 above the value of the ground. More than $5,000 had been given and a loan of $3,000 granted to churches in Porto Rico. The sum of $5,000 (by special memorial gift and grant from the Church Extension funds) had been spent on a church in Manila, Philippine Islands. The sum of $14 had been received in response to a call for a Twentieth Century thank-offering for church extension of $1,000,000. This fund was to be applied partly to the erection of churches, one for each year of the Christian era to the end of the twentieth century, partly in securing additions to the Loan fund, and partly in the cancellation of debts on churches which had been aided by the committee. The estimates for the coming year called for the collection and appropriation of $334,000.

Freedman's Aid Society.—The annual meeting of the Freedman's Aid and Southern Education Society was held at Troy, N. Y., Nov. 10 and 11. The total receipts of the society and the schools for the year ending June 30, 1902, had been $480,000, showing an increase of $101,073 from the previous year. Of these receipts, those from conference collections had amounted to $105,182. The debt of Sunday-schools had been diminished by 25%, 698, and was now $110,249. Cash annuity gifts had been received during the year and invested of $35,935, and were held to provide for the gradual liquidation of the debt of the Central Mission's colored people, 18, with property valued at $1,410,000 and 6,306 students, and of 21 schools among
white people, 4, with property valued at $515,000, and 1,664 students, belonged to the society, making a total value by mineral rights held by it of $1,925,000. The attendance at the schools had been the largest for many years, and aggregated 10,329 students under the care and instruction of 434 teachers, of whom 277 were preparing for the ministry and 708 to be teachers. The effort of the people to help themselves was especially mentioned. New buildings for three institutions had been largely erected and completed at an aggregate cost of nearly $60,000, all of which had been collected through the local conferences or by special gifts made for the purpose. Students had paid $84,830 during the year for tuition, room rent, and board, an increase of $17,560 over the previous year. Increased appropriations had been made for industrial work, and industrial trade-schools which had been closed during times of stringency were now doing efficient work. In all the schools 3,568 students were receiving some form of industrial instruction. Appropriations of $139,758 were made for the ensuing year.

**General Missionary Committee.**—The annual meeting of the General Missionary Committee was held in Albany, N. Y., beginning Nov. 12. The Board received reports of the Young People and receipts for the year ending Oct. 31 had been $1,346,298, and the disbursements $1,219,597. The receipts showed an increase from the previous year of $112,112. A balance in the treasury of $29,143 was returned. A motion to employ a field secretary among the colored people in the South to inform them concerning missionary work in the South and stimulate their interest was referred to the favorable consideration of the Open Door Emergency Commission. This commission reported that the Open Door Emergency movement had been very successful during the past year in stimulating the Church to greater activity and liberality in the cause of missions. The Board of Managers was requested to renew the commission, the missionary office was asked to cooperate in its work, and the expenditure of as much money as might be necessary for the vigorous prosecution of the same was authorized. Appropriations were made on the work of the missions during the ensuing year as follows:

I. Foreign missions: Germany, $35,700; Switzerland, $7,250; Norway, $11,000; Sweden, $15,000; Denmark, $7,500; Finland, and St. Petersburg, $5,200; Bulgaria, $7,230; Italy, $4,500; South America, $79,167; Mexico, $51,568; Africa, $40,000; Eastern Asia (India, Japan, and Korea), $93,630; Southern Asia (India, Malaysia, and the Philippines Islands), $175,570; total for foreign missions, $683,942.

II. Missions in the United States: Conference missions, $107,330; work in the mountain region, $35,707; work on the Pacific coast, $35,280; white work in the South (Maryland and Delaware excepted), $45,350; colored work, mostly in the South, $45,300; non-English-speaking missions, $204,330; total for domestic missions, $495,297; miscellaneous appropriations, $166,658; total appropriations, $1,345,297.

**General Missionary Convention.**—The first General Missionary Convention of the Methodist Episcopal Church met in Cleveland, Ohio, Oct. 21. Delegations were present from churches in nearly all parts of the country, and after the foreign mission fields were represented by missionaries or by bishops who had recently visited them officially or who now had episcopal supervision of them. The convention was to review what had been accomplished by missionary work in the past and to study the present condition of missionary enterprises, their needs, the openings they offered; to consider ways and means of continuing and enlarging the work among them, and to promote a spirit of personal devotion in sustaining them and in engaging in their service. A program had been prepared for the meeting, embracing 21 addresses, treating upon every subject bearing upon missionary work, each of which was presented by a speaker selected with respect to his qualifications to discuss the theme assigned to him. These themes included the emergency which confronted the Church in its missionary work, created by its very success and rapid growth, and the opportunity lying before the Church in the work of world-wide evangelization; Spiritual Preparation for Missionary Service, the allies of the missionary society (or cooperating agencies) in the work of evangelization; a review of Methodist missions in the nineteenth century; the problems presented by the negro, foreign populations, and the cities; Open Doors in the Pacific Islands, Latin countries, eastern Asia, Africa, and southern Asia; practical phases of the missionary problem as applying to individuals, churches, and church workers; The Place of Prayer in Missionary Work; The Need of the Church need for acting forward in missionary work and spiritual and economical aspects of the subject. One of the sessions was given to sectional conferences—of presiding elders and district missionary secretaries; of pastors; of editors; of the Epworth League and Young People's Societies; of college presidents; and of laymen. The appeals made during the meetings brought subscriptions amounting to $330,000. The convention requested the General Missionary Committee, at its coming annual session, to ask the Church for an average of at least $1 per member for missions for the year 1903. An appeal was ordered to be made to the Church, setting forth the need of cooperation on the part of the entire body and asking that the convention subscription be increased to $500,000. The appeal, as issued, further asked for subscriptions of $5,000,000 for the next year, and added that 148 new foreign missionaries were needed in the near future, in addition to the pressing requirements of the home fields.

The Woman's Home Missionary Society had 193 missionaries and 50 teachers, besides a large number of deaconesses employed in city work. It had erected the Tillman Avenue Mission Building, in Detroit, for work among the Poles and Bohemians, had completed the Boston Medical Mission Building, and Rust Hall, in Washington, for the training of missionaries and deaconesses; had opened a new Deaconess Home at Portland, Me.; and had purchased buildings for the training of Christian workers and for Spanish work in San Francisco.

The Woman's Foreign Missionary Society sent out 21 missionaries in 1902, and had at the end of the year 246 missionaries in service.

**Consolidation of Benevolent Societies.**—Under instructions of the General Conference of
1900, a commission of 15 members was appointed by the bishops to consider whether it is advisable to consolidate the benevolent societies of the Church, and if so, to report a practicable method of doing so as to lessen the number of collections without diminishing the support of the causes represented. This commission met in Ocean Grove, N. J., July 2 and the following days of the same week. All the aspects of the subject were discussed; but inasmuch as many questions were started the decision of which required careful investigation and expert legal counsel, it was found impossible to reach a final conclusion. A subcommittee was appointed to collate material facts and compare the various propositions and report to a subsequent meeting.

Bishop Simpson Memorial.—A memorial window of Bishop Matthew Simpson, who was a bishop of this Church from 1832 to 1884, which was procured by means of money contributed by American Methodists, was unveiled in Wesley’s Chapel, City Road, London, Nov. 14. Addresses were made on the occasion by the Hon. Joseph H. Choate, ambassador of the United States, and the Rev. Herbert Welch, D.D., of the New York East Conference, representing the Methodist Episcopal Church. The window represents St. Paul preaching in Antioch, and the base is a silver medal of Bishop Simpson. At the bottom is the inscription: “Erected by American Methodists to the memory of Bishop Matthew Simpson. He was born June 21, 1811, and died June 18, 1884. He was a holy man, an eloquent and mighty preacher, and a great bishop.”

II. Methodist Episcopal Church, South.—The following are the statistics of this Church as given in its Year-Book for 1903: Number of bishops, 13; of annual conferences embraced in the plan of episcopal visitations, 48; of traveling preachers, 6,293; of local preachers, 4,982; of members, 1,516,518; of Sunday-schools, 14,133, with 103,486 teachers and 884,329 pupils; of Epworth Leagues, 3,234, with 115,009 members; of educational institutions, 77, with 11,933 students, and buildings and endowments valued at $7,925,583. The years’ receipts of the Missionary Society were $357,248; of the Woman’s Home Missionary Society, $49,946; of the Home’s Foreign Missionary Society, $104,018: contributions for the American Bible Society, $10,424. The publishing house returned assets of $926,606, 4 connectional publications, and $13,863.00. In the action in the matter, we have no occasion to make further communication to that body...

The General Conference met in its fourteenth quadrennial meeting at Dallas, Texas, May 7. The episcopal address, read at the opening session, reviewed in full all the various interests of the Church, showing their progress and tendencies during the past four years, and pointing to or suggesting such modifications or reforms as the conditions and the times seemed to make desirable. In reference to the action of the Joint Commission of Federation with the Methodist Episcopal Church, which had been ratified in full by the General Conference of 1908, the address referred to the action of the General Conference of the latter body in 1900, which modified these agreements at one important point, but accepted all the rest, and continued: “Here the matter of federation stood till a few weeks ago. A meeting of the joint commissioners was held in Baltimore, March 21, 22, 1902. After the most brotherly discussion the commissioners from the Methodist Episcopal Church expressed their sincere regret that the original plan had not been adopted without alteration by their General Conference, and agreed to report it a second time with an urgent recommendation that it be passed. The joint commission also, in the exercise of the authority bestowed upon it, advised that the bishops of the two Churches proceed to appoint the committees to prepare the common hymn-book, common order of worship, and common catechism for the two Churches. As all the steps were authorized at our last General Conference, it is not necessary, we think, that any further action should now be taken in the premises, except that the commission should be continued for another four years.” In reference to the disquiet which the Church had suffered for several years past on account of the controversy concerning the collection of what was known as the “publishing house war claim” (see Annual Cyclopaedia for 1898, pp. 443, 444), the bishops represented that their relation to the questions involved in the matter began with the meeting of the college of bishops at Nashville, Tenn., July 4, 1898, when, while reaffirming the justice of the claim, they insisted that the Church could not afford to accept payment of it as a gratuity or on conditions that reflected on its honor. “Inasmuch, therefore, as some Senators have affirmed on the Senate floor that we were induced to accept the claim by misrepresentation, we desire to make it absolutely clear that the claim was not to be made to any body but the Church, and that if the Senate should take any action it should be done in accordance with the laws of the State.” This communication was addressed to the secretary of the Senate, and the Senate has accordingly taken action in the matter. The Senators have made it clear that the Senate will take no further action in the matter...

The Senate has thus declared that the United States sustained no injury in the passage of the bill, and it has accepted the action of the Senate in the matter. Of course there is no question we have no occasion to make further communication to that body. . . . That your bishops correctly interpreted the action of the United States Senate, we have the personal and authoritative assurance of a large majority of the Senators.” The last sentence referred to a correspondence which had taken place between Bishop Candler and Senators A. O. Bacon and A. S. Clay, of Georgia, which was laid before the General Conference. Bishop Candler wrote to Senator Clay, who had been a member of the Senate committee having consideration of the matter, March 24, 1902, saying that he had interpreted the final action of the Senate as entirely exonerating the Church from blame in the case, and as eliminating the question of returning the money to the Government, and that I find some extreme men still insisting upon the necessity of returning the money to the Government. Such a course appears to me to be entirely impracticable, and not to say impossible, and I can only object to both right and propriety. . . . I am jealous for the honor of the Church, and I earnestly desire that the final action of the General Con-
ference shall not fall short in any particular of perfect wisdom and righteousness." In answer, Senators Clay and Mason wrote, with the written concurrence of nine-tenths of the members of the Senate, whose names were appended to their letter, that from their personal familiarity with what occurred in the discussions of the Senate concerning the matter, and from the subsequent investigation made by the Senate and the resolution which was adopted by the Senate as the result of the investigation, they found the Church not under obligation, either of necessity or of propriety, to return the money which had been paid it. "From our personal knowledge of what occurred at the time of the consideration and the passage of the bill, we are enabled to say that no Senators who voted in favor of the bill thereafter expressed dissatisfaction because of any act by the Church in securing its passage, or because of any regret on his part that the Church had received the portion of the money which was left after the payment of the commission which was complained of. The dissatisfaction which found expression when the fact of the payment of the large commission became known was not a part of the money, but because it had not received all of the money. There were expressions by Senators to the effect that if they had known of the manner in which the Church was about to expend the large commission, they would not have voted for the bill. By this they simply meant that they would have required the bill to be so amended as to require the entire amount appropriated, excepting only such an amount as they would consider a proper fee for services rendered." Two reports were presented by the committee to which the subject was referred, that of the majority, which, after scrutinizing the proceedings of the Book Committee and their agents in presenting the claim to the Senate, condemned certain statements made by them as "misleading and deceptive," and declared that in making those statements their authors "did not properly represent the Church and were not its agents in the ethical questions involved," and recommended that the entire sum collected, $288,000, be returned to the United States Government. Neither of these reports was satisfactory to the General Conference, and the subject was again referred to a committee which brought in a revised report. This report held in view of the record of the action of the Senate and the bishops and of the correspondence just mentioned, "we are unable to see upon what ground there can be based the contention that the Church should make a second offer, and invoke a second refusal from the Government, or any deviation therefrom," and ended with the resolutions: "1. That the Church distinctly repudiates all the acts of concealment, misrepresentation, or unfairness of any person, and all persons representing the Church in the prosecution of the claim before Congress, either intentional or otherwise, and whether the same did or did not affect the vote or opinion of any Senator or Representative. 2. That we inform the purpose of the bishops in their communication to the United States Senate, and do hereby ratify and confirm their conditional tender of the money, and make the same General Conference and declarative of the mind of the Church, and that this action be entered on the journal of the General Conference as a final disposition of the whole matter." This report and the resolutions were adopted.

With respect to federation (with the Methodist Episcopal Church), the General Conference approved and adopted the acts passed by the Joint Commission on Federation of the two Churches at their late session in Baltimore, Md., and recognized those that had also been adopted by the General Conference of the Methodist Episcopal Church as having the force of law. It further declared that it would recognize other measures as being in force when they should have been adopted by the General Conference of the Methodist Episcopal Church. The bishops were authorized to act in concert with the bishops of the Methodist Episcopal Church in the work of preparing a common hymnal for public worship, a common catechism, and a common order of worship. In continuing the Commission on Federation during the coming four years, with the same powers as heretofore, the Conference expressed itself as acting in the confident hope that the General Conference of the Methodist Episcopal Church would in its session of 1904 adopt the action of the General Conference of the Church shall not receive the payment of the large commission, they would not have voted for the bill. They simply meant that they would have required the bill to be so amended as to require the entire amount appropriated, excepting only such an amount as they would consider a proper fee for services rendered." Two reports were presented by the committee to which the subject was referred, that of the majority, which, after scrutinizing the proceedings of the Book Committee and their agents in presenting the claim to the Senate, condemned certain statements made by them as "misleading and deceptive," and declared that in making those statements their authors "did not properly represent the Church and were not its agents in the ethical questions involved," and recommended that the entire sum collected, $288,000, be returned to the United States Government. Neither of these reports was satisfactory to the General Conference, and the subject was again referred to a committee which brought in a revised report. This report held in view of the record of the action of the Senate and the bishops and of the correspondence just mentioned, "we are unable to see upon what ground there can be based the contention that the Church should make a second offer, and invoke a second refusal from the Government, or any deviation therefrom," and ended with the resolutions: "1. That the Church distinctly repudiates all the acts of concealment, misrepresentation, or unfairness of any person, and all persons representing the Church in the prosecution of the claim before Congress, either intentional or otherwise, and whether the same did or did not affect the vote or opinion of any Senator or Representative. 2. That we inform the purpose of the bishops in their communication to the United States Senate, and do hereby ratify and confirm their conditional tender of the money, and make the same General Conference and declarative of the mind of the Church, and that this action be entered on the journal of the General Conference as a final disposition of the
TION OF THE PREACHER IN CHARGE. A BOARD OF FINANCE WAS INSTITUTED, TO BE COMPOSED OF THE SECRETARIES OF THE ADMINISTRATIVE BOARDS AND THE BOOK EDITOR, TO MEET EVERY FOUR YEARS AND CALCULATE THE BASIS OF SUPPORT ACCORDING TO THE DECLARED EDUCATIONAL POLICY IN THE CHURCH. THE BOARD WAS TO SEEK TO ESTABLISH NEW SECONDARY SCHOOLS AS TO CARE PROPERLY FOR SUCH AS HAVE PROVED THEMSELVES WORTHY; THAT THE POLICY OF HAVING THE SECONDARY INSTITUTIONS AS AN ANNUAL CONFERENCE COMPARE THEMSELVES WITH THE COLLEGES OF THAT CONFERENCE SHOULD BE INSISTED UPON AND ENFORCED; AND THAT THE CONFERENCES, IN MAKING THEIR COLLECTIONS FOR EDUCATION SHOULD, AS FAR AS PRACTICAL, CONCENTRATE THOSE COLLECTIONS ON THE COLLEGES AND SECONDARY SCHOOLS OF THE CHURCH. THE MOVEMENT FOR THE IMPROVEMENT OF RURAL SCHOOLS WAS COMMENDED.


MORE THAN $800,000 HAD BEEN SUBSCRIBED TO THE TWENTIETH CENTURY FUND, AND THE SUM OF $1,411,512 HAD BEEN PAID.


propositions to the Church on certain conditions. The publishing department was regarded as in a healthy and prosperous condition, encouraging the hope that it was approximating a permanent and self-sustaining basis. The Sunday-school department likewise was doing well. Action was taken favorable to organic union with the African Methodist Episcopal Zion Church, and a commission was appointed to confer with a similar commission of that Church on the subject. The Rev. Dr. C. H. Phillips, editor of the Christian Index, the official newspaper of the Church, was elected an additional bishop.

IV. Joint Commission on Union.—The Commissions on Union of the Colored Methodist Episcopal and the African Methodist Episcopal Zion Churches, which had been appointed by the last General Conferences of these bodies, met as a joint commission to consider the subject of union of the two Churches in Washington, D.C., Oct. 7. Previous to the joint meeting the two commissions met separately to frame the terms of union which they should offer, and drafted propositions which were identical in all essential points. The sense of the joint commission was expressed in the following terms:—That organic union between the Churches was desirable; and articles of agreement to serve as a modus vivendi while the negotiations for union are pending were adopted by a unanimous vote of the 30 members constituting the body in substance as follow:—‘1. We agree not to attempt to organize churches or schools in any community or territory where the other Church is organized unless in the judgment of the bishops presiding the population and needs are such as to warrant another Methodist church or school. 2. We will cooperate in all our missionary work, the manner of this cooperation to be decided upon by the bishops and mission boards of the two Churches. 3. When members of either Church move to a community where the Church of their denomination is not organized, letters should be given them to the other Church. 4. That there be a compilation, publication, and use of a common hymn and tune book, and a common form of public worship. 5. Frequent interchange of visiting and fraternal delegates in district, annual, and General Conferences; and the exchange of pulpits, courtesy, to promote acquaintance and fellowship. 6. That we suggest as a name, ‘The Colored Methodist Episcopal Zion Church.’ 7. Pending the union, preachers will not be received, unless in good and proper standing in both Churches, and in the judgment of the bishops presiding the need of the connection. 8. That a meeting of this joint commission be called, and that all the bishops and general officers of both Churches be requested to be present; that the agents of each of the publication houses of the connections represented be requested to keep for sale all the publications of their respective departments.’ Another meeting of the joint commission was appointed to meet at Charlotte, N.C., July 14, 1903, to form further basis for the union. The final action of the commission will have to be submitted to the General Conferences of the two bodies of the Zion Conference in 1904 and of the Colored Conference in 1906, and then to the annual and quarterly conferences.

V. Methodist Church in Canada.—The following statistics of this Church for 1902 were published by the General Conference statistician in July: Eleven conferences (including Japan) and the West China Mission; number of members, 291,895, showing an increase for the year of 2,733; of Sunday-schools, 3,425, with 33,396 officers and teachers and 272,566 pupils, showing an increase of 6 schools, 754 officers and teachers, and 5,613 pupils; of Young People's Societies, 1,809, with 69,402 members, showing a decrease of 16 societies and 1,586 members; of members received on trial during the year, 19,002; of baptisms, 17,371; amount of contributions of Sunday-schools for missions, $22,113; amount contributed for missions in connection with the work of the Church, $170,092. The statements of the conferences show a total increase of 11,358 for the quadrennium or four years' term since the last General Conference and a net increase of 122,062 since the union in 1883, by which time the Church was constituted. The total missionary contributions for the quadrennium were $83,103.

The sixth General Conference met at Winnipeg, Sept. 4. The Conference recommended the establishment of equal numbers of ministers and laymen. The address of the general superintendent showed that the membership of the Church had increased during the quadrennium, or four years since the preceding General Conference, 11,358. This was the smallest quadrennial increase since the union of the churches in 1883. A diminution in the number of Epworth Leagues and Young People's Societies was also remarked. According to the tables in the census of the dominion for 1901, the Methodists had advanced during the past ten years at all points in the country except for a small decrease in Prince Edward Island, and the advance had been specially large in Manitoba, British Columbia, and the territories. The recommendation of the General Conference that an effort be put forth to make class-meetings more attractive and spiritually helpful had been in a measure carried out. Class-leaders' associations and conferences representing in institutions or conferences held in a number of cities and larger towns, and similar conferences had been held in connection with district meetings. A report was presented by a Memorial Committee recommending that the words “layman” and “laymen” wherever they occur in the Discipline be interpreted to mean women as well as men. It was shown that this question of the status of women in the Church had been decided in the previous General Conference to be a constitutional one, requiring a two-thirds majority for any valid action upon it; and the Conference voted that it deemed it inexpedient to reverse its previous decision. The clause coming up again for final action, a tie vote resulted and it was declared lost; but presidents of auxiliaries of the Woman's Missionary Society, if members of the Church, were constituted ex officio members of the quarterly official boards. A report on the indebtedness of St. James's Church showed that the debt had been reduced from $622,224 in 1898 to $512,822; but that large subscriptions had been promised and other reduc-
ions were practicable, whereby the additional amount it was necessary to raise was brought down to $182,697. A day was appointed for bringing the matter before every congregation in the Church, and a committee was appointed to take charge of it. The principle of increased and more authoritative supervision in home mission work was approved; the appointment of 4 superintendents of missions was provided for—one for New Ontario, two for Manitoba and the Northwest Territories, and one for British Columbia; the Board of Home Missions was authorized to increase the number of local superintendents as the urgent needs of the work may require; the appointment of a corresponding secretary for Manitoba and the Northwest Territories to whom the superintendents shall report was authorized; and the institution of a special fund for the payment of the mission superintendents was advised. The office of a permanent secretary to be appointed by the General Conference, and to act as a field agent in the interests of temperance, prohibition, and moral reform, was constituted. The pastoral term (in which a minister may serve consecutively at the same station for 6 years) was fixed at 4 years, with the exception of probation; and was made subject to the rule that two pastorates on the same field by the same man was shortened from 6 years to 4 years. Numerous memorials had been received concerning Rule 35 in the Discipline prohibiting dancing, card-playing, theater-going, etc., some asking that the rule be modified by an exemption for old age, and others that it be not changed. The Conference decided upon no change. The General Board of Missions was empowered to work with the Presbyterian Board of Missions, with a view to lessening the expenses of administration; and to superannuate medical missionaries and pay their claims out of the mission funds. Provision was made for the trial of charges against foreign missionaries who still retain their home membership by a mixed court of foreign and native missionaries, with a right of appeal to the home court, whose decision shall be final, except on points of law. The proposed union of the Methodist Churches in Japan was approved, and a committee was appointed to confer with the proposal from the Church in Japan and take action in the matter. An invitation from the British Wesleyan Church to engage in mission work in India was declined, on account of the inability of the Church in England to provide the necessary funds. All the ministers were advised to hold up before their people a high standard of Sabbath observance; and ministers working under the Lord's Day Alliance were permitted to do so without losing their claims upon the Superannuation fund for years of service. The injunction against ministers speaking too long or too loud was stricken out of the Discipline. The Conference declared itself in favor of a measure of organic unity wide enough to embrace all the evangelical denominations in Canada; declared, "in no spirit of exclusiveness toward others not named," that it would regard with great gratification a movement having in view the ultimate organic union, of the Presbyterian, Congregational, and Methodist Churches in Canada, such as had been proposed; commended the movement to the prayerful interest and sympathy of the Church; and directed the appointment of a committee to examine the question and report to the General Conference of 1904. A special fund of $250,000 was provided for, to be raised during the next year in connection with the bicentenary of John Wesley, to be used for purposes of the Missionary Society. The establishment and furnishing of parlors and reading-rooms in the central churches of towns and cities, especially for those whose resources for social enjoyment are scanty, were approved. The report on temperance, as adopted, included a paragraph on political corruption. The official name of the Church is "The Methodist Church." A proposition to change it to "The Methodist Church of Canada" was defeated. Provision was made for the preparation of a course of study for local preachers, with a view to making more extensive use of them. The conviction was declared that "the development and maintenance of Christian citizenship requires at least some measure of religious as well as ethical instruction in our schools, provided it be not sectarian." The minimum salary of a married minister was made $750, instead of $600, as heretofore. The Committee on Church and Parsonage Aid reported that with the limited fund of $25,000 valuable services had been rendered toward securing places of worship and other church property, especially in the Northwest Territories. Economical and industrial questions were discussed by the Committee in the report of the Sociological Committee. The report of the Committee on Civil Rights recommended that the existing table of ecclesiastical precedence at state functions be abolished; or, in case this course is impracticable, that the order of precedence at Dominion functions be based on the numerical strength of the religious denominations as ascertained by the census. A similar course was already in practice in the several provinces.

The Board of Missions met in Brandon, Sept. 22. The report of the General Secretary showed that the total income for the year had been $308,429, showing an increase of $561,114 over the income of the preceding year, the figures representing the largest income and the largest increase of any year since the union of the churches. Four superintendencies in the domestic missions were formed, and the superintendents were appointed, together with a corresponding secretary for Manitoba and the Northwest and the British Columbia Conference, as directed by the General Conference. The Young People's Forward Movement, under which $24,000 were contributed to the support of the missionaries, was continued. The interests of the missions to the French, to the Japanese and Chinese in British Columbia, and to the Indians, and of the missions in Japan and China were considered. A committee was appointed to confer and cooperate with a similar committee appointed by the Home Mission Committee of the Presbyterian Church on questions of comity.

VII. Wesleyan Methodist Church (Great Britain).—The statistical reports of this Church for 1902 gave the following members:

<table>
<thead>
<tr>
<th>Conferences</th>
<th>Ministers</th>
<th>Lay preachers</th>
<th>Church members and probationers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>2,380</td>
<td>20,285</td>
<td>409,710</td>
</tr>
<tr>
<td>Ireland</td>
<td>653</td>
<td>629</td>
<td>59,060</td>
</tr>
<tr>
<td>Foreign missions</td>
<td>905</td>
<td>902</td>
<td>64,644</td>
</tr>
<tr>
<td>French Conference</td>
<td>87</td>
<td>85</td>
<td>1,648</td>
</tr>
<tr>
<td>Total</td>
<td>2,943</td>
<td>20,970</td>
<td>501,850</td>
</tr>
</tbody>
</table>

Number of churches, 11,623; of Sunday-schools, 9,084, with 137,506 officers and teachers and 1,060,104 pupils. The South African Affiliated Conference had 202 ministers, 3,915 lay preachers, 93,660 members and probationers, 589 Sunday-
schools, 2,613 officers and teachers, 39,118 pupils, and 826 churches; the West Indian Affiliated Conference, 93 ministers, 907 lay preachers, 45,728 members and probationers, 301 Sunday-schools, 2,759 officers and teachers, 25,728 pupils, and 147 churches. The Australasian Methodist Church had 932 ministers, 8,432 lay preachers, 131,774 members and probationers, 4,103 Sunday-schools, with 21,476 officers and teachers and 211,082 pupils, and 8,539 churches.

The Church had 7,374 chapels settled upon the terms of the Model Deed, with sitting accommodations for 2,075,808 persons, showing an increase in ten years of 500 chapels connectionally settled, and 173,422 sittings. In addition there were 913 rented chapels or other preaching places, seating 111,705 persons. The whole number of sittings in Great Britain was 2,187,508.

Sixty Wesley deaconesses and 8 second-year probationers had been employed during the year in 42 circuits and 7 missions, besides 2 in the Transvaal, 1 in New Zealand, and 2 in Ceylon.

The report of the General Chapel Committee showed that 411 cases of new chapels, schoolrooms, ministers' houses, alterations, enlargements, etc., had been reported for the year, with an estimated outlay of £236,286, on which such provision for payment had been made as would leave an indebtedness at the end of the year of more than £209,640. A total additional accommodation would be furnished on the completion of these improvements of 14,787 sittings. Of the new chapels, 89, to seat 7,933 hearers, were to be erected in places where there were previously no Wesleyan places of worship. Two hundred and twenty-five cases of enlargements, etc., had been reported. The sum of £10,608 had been appropriated to allowances for 884 ministers' children educated at home, and other appropriations had been made out of the fund.

The total income of the Home Mission fund had been £35,581, showing an increase of £1,304, and the expenditure had amounted to £33,595.

The cost of the House for the year was £4,697 for education, £1,000 for special extension work. The sum of £10,608 had been appropriated to allowances for 884 ministers' children educated at home, and other appropriations had been made out of the fund.

The total income of the Mission fund had been £12,500, showing an increase of £1,304, and the expenditure had amounted to £33,595.

The Government had issued £2,454 in capitation grants. More than 100 home missionary ministers and 8 connectional evangelists were supported by the fund. Twenty Gospel cars were in service, 5 of which had been added during the year, and were manned by 40 evangelists.

The votes of 2 Wesleyan ministers were objected to by the Conservative agent at an election on the ground that the ministers had not resided in the district for 5 years. They were seated as electors. The Liberal agent, supporting the votes, contended that the ministers in being transferred from one circuit to another were "successors to a benefice or office," and as such were entitled to vote. The case came before a King's Bench divisional court, Nov. 7, on an appeal from the refusal of the revising barrister at Gloucester to allow the claim of the bishops. The Lord Chief Justice said that the question raised was one of importance to a great number of ministers who at present lost the right to vote for one year by reason of changes in circuits. The point was whether the revising barrister was right in this instance, on the evidence before him, in holding that the applicant had not proved that the post of Wesleyan minister was an office which came within the meaning of the statute, and gave him a right to vote by reason of succession to that office. The Chief Justice held, with the concurrence of the other justices, that the revising barrister was right. The applicant was back, in making his appeal, by the Committee of Privileges of the Wesleyan Conference.

Wesleyan Missionary Society.—The annual meeting of the Wesleyan Missionary Society was held in London, May 5, Mr. Peter F. Wood, of Chiswellhurst, presiding. The total ordinary net receipts for the year had been £100,478, while the addition of special donations, etc., made the income from investments, legacies, and lapsed annuities bring the amount up to £136,628. The expenditure had been £143,617, leaving a deficiency of £27,088. Forty-four missionaries had been sent to India, Ceylon, Burma, West Africa, China, the Transvaal and Rhodesia, the West Indies, the Bahamas, South Africa, Honduras, Paris, Nantes, and Bali; 17 woman missionaries had gone to various parts of the field; and one lay agent had been sent to India. The general summary of the mission field gave the following numbers: Of principal stations, 325; of chapels and other preaching places, 2,466; of missionaries and native ministers, including supernumeraries, 395; of other salaried agents, 1,357; of unpaid agents, 2,050; of full and accredited church-members, 50,152; of members on trial, 14,482; of pupils in mission schools, 100,728. These numbers show an increase of 20 stations and places, 198 missionaries, 90 other salaried agents, 158 unpaid agents, 1,384 members, 860 on trial, and 4,355 pupils. Among the striking features of the work of the year were the successful labors among the navvies in the Simpion Tunnel; progress toward a self-supporting and self-governing church in Ceylon; revivals in South India; reconstruction and readjustments for the improvement in South and West Africa; and beneficial legislation in the West Indies.

Wesleyan Conference.—The Conference met at Manchester, July 22. The Rev. John Shaw Banks, Professor in the Theological Institution, was chosen president. The following resolution was adopted concerning the education bill: "The Conference once more declares that the primary object of Methodist policy in the matter of elementary education is the establishment of school boards everywhere, acting in districts of sufficient area, and the placing of a Christian non-sectarian school within reasonable distance of every family. The Conference therefore deeply regrets that the present education bill is intended to destroy the school board system, and to make no adequate provision for the just claims of those parents who do not desire their children to be drawn into denominational schools. The Conference has tried to qualify the bishops in the diocese, or to prevent them from being used with equitable restriction, for the purpose of giving denominational education to those children.
whose parents desire it. But the Conference expresses once more its deep conviction that no increased grant from public funds should be made to denominational schools, unless that increased grant is accompanied by adequate and representative public management. If, however, denominational schools are to be almost wholly maintained from Imperial taxes and local rates, the irreducible minimum of the rights of conscience and public justice demands that at least a majority of the local educational authority and of the governing committee of every school shall consist of publicly elected persons.

The Committee on the Twentieth Century Fund reported that in payments more that £300,000 had been reached. About £280,000 were drawing interest (3 per cent.), and from this source nearly £55,000 had accrued. For the Methodist House in London, which formed part of the fund's program, the committee had entered into negotiations for the purchase of the Royal Aquarium premises at Westminster. A deposit had been paid, and, subject to the approval of shareholders (which was given before the close of the Conference), the proposal of buying 100,000 square feet, would become connectional property before the ensuing February. The building to be erected thereon would include one large hall seating 2,000 persons, a hall seating 1,000 persons, a large library, and many suites of rooms for connectional organizations. The attention of the Conference was occupied in a very large degree with the case of the Rev. Dr. Joseph Agar Beet, a professor in the college at Richmond of the Theological Institution, in which a question of heresy was involved. Dr. Beet had published a book entitled The Last Things, in which he asserted that the doctrine of the natural immortality of the soul was not taught in the Scriptures; and while denying the doctrines of annihilation at death and of immortality in Christ alone, he held that the soul has a conscious existence after death and the souls of the impotent exist in conscious suffering; but it is not taught that this continued existence is endless. The case had been before the Conference four years before, and was dropped on Dr. Beet's promising to withdraw the book. Since then he had published another book, The Imortality of the Soul; and a Protest, in which similar views to those formerly objected to were advanced. He was charged before the Conference with having violated his pledge given at the Conference in 1896 in writing the book The Last Things by republishing the substance of it in another book, and with having published in the latter book doctrines contrary to the standards of the Church. The case was referred to a special committee, upon the report of which the Conference found, with regard to the first charge, that Dr. Beet had not kept the pledge given to the Conference in the sense in which it was generally understood. But the Conference recognized the great difficulty and perplexity in which he was placed at the time the promise was made, and while deeply regretting his action, regarded it as arising from a serious error of judgment rather than from want of good faith. In regard to the second charge, it was found that Dr. Beet "has published in the aforesaid book doctrines contrary to the standards of our Church (a) in exalting the moral sense to an authority in religious belief above Holy Scripture, (b) in regard to the immortality of the soul, and the endless sufferings of the lost. In regard to (a) the Conference finds that though his language was unguarded and liable to misconception, and some passages of the book seem to place the moral sense above Scripture as an authority in matters of religious belief, Dr. Beet has no intention of doing this, and he emphatically denies that there is any real conflict between the two. In regard to (b) Dr. Beet believes the committee that in some small details his teaching contravened the teachings of our standards, but that it is in harmony with the general system of doctrine that underlies them. The Conference finds that Dr. Beet rejects as without foundation the doctrines popularly known as those of annihilation, conditional immortality, universal restoration, and probation after death; and maintains that through the Holy Scriptures teach that all our souls will survive death for a period to which no limit can be affixed, and that utter hopeless and final punishment will overtake the lost. He does not assert or assume the essential permanence of the soul, though neither do they deny this. And that, while the Holy Scriptures give no ground for hope that the agony of the lost will cease, they do not plainly and categorically assert its endless continuance. The above is the statement of Dr. Beet's views made at the Conference of 1898, and freely accepted by the committee as a statement of his present position. The Conference decides that this teaching falls short of and contravenes the doctrine held and taught in our Church. It regards it, 3,000 years removed from the dread solemnity and admitted mystery of the subject and the necessity of allowing some freedom of opinion upon it, and out of respect to the fidelity of every generation of doctrine, the Conference resolves that on condition that Dr. Beet does not teach in our pulpits the doctrine of this book, and that he publish no further upon the subject except with the consent of the Conference, the Conference will take no further action." The re-election of Dr. Beet as a professor in the Theological Institution was opposed on account of his position respecting these doctrines; but he was chosen, receiving 371 votes out of 577 cast. The home mission department reported a rising income; but the foreign mission report embodied a complaint that the contributions were stagnant, and the Church was in danger of being outstripped on the mission fields. A series of missionary conventions on a large scale was directed to be held during the coming year in London and 11 other of the more important cities.

VIII. Primitive Methodist Church.—The following is a summary of the statistics of this Church reported to the Conference in 1902:

- Number of traveling preachers, 1,048; of local preachers, 16,016; of class-leaders, 10,599; of members of society, 195,651; of Sunday-schools, 4,107, with 58,881 teachers and 450,396 pupils; of hearers, 589,784: of connectional chapels (home), 4,321; of other chapels (home), 632; of church property (home), £4,019,239; debt on the same, £1,016,678. In Africa and New Zealand there were 60 connectional chapels and 101 other chapels and rooms, and the value of the church property was £45,843, less debt of £29,584.

The General Chapel fund had granted during the year £783 toward reducing debts and £211 toward new erections, and had promised £3,200 additional. The Chapel Loan fund amounted to £12,313. The Legal Defense fund amounted to £271. The London Chapel Extension fund had received £191, and had granted £250 for the purchase of sites. The Church Extension fund had an income of £4,400, and had promised assistance to projects involving a cost of more than £130,000. The connectional fund returned an income of £11,563. The Superan-
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uanted Ministers’ Widows’ and Orphans’ fund had supported 315 annuitants, widows, and orphans. Turnover of insurance business was £2,651. The Local Preachers’ Aid fund reported an income of £1,139, showing an increase of £249, with 123 pensioners on the permanent list. The annual meeting of the Primitive Methodist Missionary Society was held in London, May 12, the Rev. Thomas Whitehead presiding. The net income for the General fund had been £13,168, and the expenditure £13,846. The net income of the African fund had been £6,180, and the expenditure £7,772. The home missions returned a net increase of 224 members. Since the union of the Methodist Churches in Australia, the only colonial stations remaining in direct association with the English Conference were in New Zealand. The churches there exhibited a healthy and vigorous life. Reports were made of foreign mission stations in West Africa, where one of the centers had been disturbed by the declaration of the district as German territory; South Africa, where the station at Aliwal North, which had been seriously injured by the war, was regaining its normal conditions, and, with 1,173 members, constituted the largest church in the connection; and India, where the growth was just in its beginning. The institution of the Church Extension fund had led to the creation of a number of new causes in suburban places, and the fund was cooperating in the erection of nearly 60 new buildings. The Sustentation fund had come under partial review during the year, and the inquiry was not yet complete. The eighty-third annual Conference met in Hull, in June. The Rev. Thomas Mitchell was chosen president. The statistical returns showed the largest connectional increase the Church had known for many years. The committee, which had been engaged in codifying the connectional regulations made an ad interim report, and was reappointed, with the addition of two new members. In the case of an appeal of a minister for compensation because he had been removed from one circuit to another without notice, while some hardship was admitted, the Conference thought the matter had been referred to the Advantage Committee for inquiry, and it was determined that in the published Conference minutes there should be entered after each degree inserted the name of the institution from which it came. The organization of the Missionary Committee was modified; and instead of there being two committees, one meeting fortnightly in London, and the other quarterly at various centers, the quarterly meeting was made the General Missionary Committee, and an Executive Committee was constituted, of 19 persons, 8 of whom must be laymen, to meet monthly in London, and to be directly responsible to the quarterly committee. The unit of representation in the Conference was changed, to be in the future 1,000 members, instead of 3,000, as in the past, with no district to have less than 3 delegates. A petition was adopted for presentation to the House of Commons, showing that the members of the Conference were strongly of the opinion that the House of Lords should take into consideration the matter of Churchmen being in positions of importance, and in a degree of control over ecclesiastical property, the persons in charge were authorized to obtain the opinion of counsel if necessary. The education bill of the Government was condemned by a unanimous vote. The report of the Committee of the Century fund showed that the total amount promised was 104,516 guineas, a sum to which

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increase by further contributions from foreign stations. The Committee of the Methodist Fund and the Connectional Committee had jointly considered a scheme for Church extension which as adopted by the Assembly contemplates the allotment of one-third of the missionary income to this work; the appointment of a subcommittee of the Connectional Committee acting under its supervision for administering the money allotted for home mission work; the determining of grants for ministerial purposes to home mission churches, dependent circuits, and extensions; and the oversight of stations receiving help. The portion of the Twentieth Century fund allotted for Church Extension purposes is to be administered by the Chapels Committee in conjunction with the treasurers and secretary of the Twentieth Century fund, who will be ex officio members of the committee. An Advisory Committee was constituted to consult with churches intending to erect new buildings. In view of the expressions of the Ecumenical Methodist Conference of 1901 in favor of Methodist union, the Assembly again expressed unanimously, "as on former occasions, its strong conviction that such union is greatly to be desired. As a declaration of the advantages of union and the importance of the increased unification of the Methodist Churches. It should be realized that to secure the desired end mutual concessions must be made, and that such concessions should be consistent with ecclesiastical freedom and representative government. Should the state of opinion on church government make it impracticable for all sections of Methodism to unite, those that are nearest to each other in their foundation principles might make, as a first step, approaches, in the hope that in the future the people called Methodists may form one organization. With this view the Assembly is prepared to consider any practicable proposals in favor of union." A scheme for carrying out evangelical education and industrial work in East Africa was adopted.

X. Bible Christian Church.—The Bible Christian Conference met in Forest Hill, London, July 30. The Rev. John Dale was chosen president. It was remarked on comparing the statistical tables that the numbers in the Church were no longer than forty years ago, but rather less. The failure to advance was satisfactorily accounted for by reference to the deductions which necessarily followed the setting off of the colonial conferences that they might enter the union of the Methodist Churches in their respective countries; thus the Churches of New Zealand had united with the Wesleyan Methodistists in 1897; those of South Australia with other Methodistists in 1900-01; and those of Victoria during the past year. The deductions to be made in consequence of the transfer of churches aggregated 77 ministers, 400 local preachers, 370 chapels and preaching places, 7,530 members of society, 1,848 teachers, and 15,576 pupils in Sunday-schools. The steady advance at home, however, would at the present rate carry the total in each department of the tables beyond the figures of 1896, the year before the New Zealand loss. The New Century fund had been brought within £500 or £600 of the amount of £25,000 contemplated at the outset. A resolution was passed denouncing the education bill and warning the Government that "a large number of our people will not consider the bill to be satisfactory, and will put us in a law, as entailing any moral obligation upon them to obey it." Concerning the Methodist union, the Conference declared its judgment "that the union of all the Methodist Churches in this country on a just and honorable basis is a commendable work, as a witness to the world of the common and united purposes of Christ's Church, and an important step toward the closer union of all the evangelical churches in this country, and we therefore resolve to embrace every opportunity afforded us for denominational fellowship and mutual cooperation. This Conference is further of opinion that in the meantime it ought to be possible for the Methodist Churches which hold substantially the same views of the pastoral office and the mutual rights and relations of ministers and laymen to at once unite for the sake of economy and greater efficiency in working, and in the event of any proposals to this end being received from any one or more of these Churches, we once more affirm our willingness to seriously consider them, following in due course with the whole body of the Church as to the means to be adopted, as an essential condition, preliminary inquiries show that a satisfactory basis of union is likely to be formulated, and that there is a determination, if negotiations be once commenced, that it shall, if possible, be conducted to a successful issue." Further, the Conference unanimously directed, that in the event of any overtures being received from any Church, the Committee and the Conference of any Methodist Church in the country on the subject of union, the Connectional Committee be authorized to consider the same, however taking care secure the Union in any way to organic union until the whole matter has been reported to the annual conference and a decision has been taken to that effect." The Conference also acted favorably upon a proposal of the Joint Committee of the Methodist Churches for concerted action suggesting the designation of a deputation to visit each Methodist conference or assembly.

The annual meetings of the Bible Christian Missionary Society were held in London, May 6. The report showed that 62 ministers were engaged in the home work, with 250 local preachers, 4,512 church-members, 831 junior members, 931 teachers, and 3,046 scholars, and that 72 members had been added during the year. In the foreign field there were in China 11 missionaries, 28 full members, 22 c.n. trial, and 150 scholars. An increase of 5 Sunday-schools was reported. Three-quarters of the Century fund had been paid in.

XII. Wesleyan Reform Union.—The fifty-fourth annual Conference of the Wesleyan Reform Union met in High Wycombe, Aug. 2. The Rev. Edmund Bromage was chosen president. The statistical report showed that the Union was connected with the Union 192 chapels and preaching places with 45,111 sittings, 406 preachers, 73 preachers on trial, 347 class-leaders, 7,574 members, and 475 members on probation. An increase of 5 Sunday-schools was reported. The connectional Endeavor Societies returned 2,440 members. The sum of £2,931 had been spent in chapel improvement. The Jubilee Loan, which had been brought up to a total of more than £1,750, or within £230 of the amount of £2,000 aimed at. A resolution condemning the education bill was carried unanimously. The Conference by resolution expressing the opinion that the time had now arrived when some definite action should be taken to ascertain the opinion of the various branches of the Church upon the subject of Methodist Union, a commission was appointed "to attend any joint conference for the purpose of a frank and friendly discussion, and, if possible, for the finding of some basis of union," and a committee of seven was made that the Union had now a sum of £130 subscribed for missions, and that a general in-
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There were 1,908,707 Indians in 1895 who could not speak Spanish, and 2,034,712 who habitually spoke the native Indian languages. The number of foreigners in 1895 was 30,886, of whom 13,962 were Guatemalans, 12,559 Spaniards, 11,331 citizens of the United States, 3,599 French, 2,450 British, 2,153 Germans, 1,932 Italians, 1,107 other Europeans, 993 Asians, and 408 South and Central Americans. The number of marriages recorded in 1898 was 81,957; of births, 489,033; of deaths, 452,229. Registration has been law, and in 1898 it was made a condition of the recognition of children as legitimate.

**Finances.**—The total receipts of the federal treasury for the year ending June 30, 1901, amounted to $63,283,196 Mexican, and expenditures to $59,423,006. For 1902 the revenue was estimated at $62,236,000, and expenditure at $62,275,102. The budget for the year ending June 30, 1903, makes the total receipts $64,823,600, of which $29,228,500 are derived from import and export duties, $25,739,000 from stamps, etc., $5,524,000 from post and telegraphs, $3,443,000 from direct taxes, and $2,890,000 from various sources. The expenditures for 1903 were estimated at $64,738,416, of which $1,145,985 are for the legislative power of the Senate, $425,908 for the judiciary, $688,035 for foreign affairs, $3,151,422 for the interior, $3,218,821 for justice and education, $696,206 for public welfare, $9,214,191 for public works, $29,304,286 for the navy, and $14,283,050 for war and marine. The foreign commercial exchanges have been so disturbed by the depreciation and fluctuations of silver that in 1902 the Government was compelled to infuse $3,375,000 into circulation to the banks to keep accounts with their customers in either gold or silver and convert silver credits into gold or gold credits into silver at the current rate. The banks have accumulated gold reserves against their gold liabilities. The Government contemplates adopting the gold basis. The revenue for 1903 is estimated at $67,959,000, and expenditure at $67,957,000. The surplus of 1902 was $3,000,000 and the accumulated surplus amounted to $26,000,000 in silver and over $3,000,000 in gold.

The federal debt in 1901 amounted to $109,475,000 payable in gold, consisting of a 6-per-cent. loan of $50,845,000 obtained in 1888, one of $29,783,000 contracted in 1890, one of $14,970,000 contracted in 1892, and a 6-per-cent. loan of $9,742,000 of the Tehuantepec Railroad dating from 1899; consolidated 3-per-cent. bonds payable in silver amounting to $51,000,000, redeemable internal bonds payable in silver, making a total silver debt of $135,609,271, besides a floating debt of $1,296,965.

Each state elects a Governor, Legislature, and judicial officers to enforce its separate laws and has power to levy taxes, but not to impose duties on the products of other states. The budgets of the 27 states in 1899 amounted to the sum of $19,052,534 for receipts and $19,052,534 for disbursements.

The standard value of the Mexican dollar containing 24.440 grains of fine silver. From 1821 up to June 30, 1900, the Mexican mints coined $1,395,473,180 in silver, $50,258,530 in gold, and $6,585,620 of copper and $2,744,000 of nickel coins.

The Army and the Navy.—The strength of the army in 1900 was stated to be 32,143 men, including 2,068 officers. The infantry numbered 1,314 officers and 21,291 men; cavalry, 506 officers and 6,683 men; and artillery, 1 officer and 2,101 men. In the cavalry are included 261 rural guards and 118 gendarmes. The infan-
try are armed with Mauser rifles of 7 millimeters caliber. The cavalry are of the same system, the artillery with Hange field-pieces of 7.9 centimeters caliber and Gruson mountain guns. The war strength is estimated at 60 generals, 3,400 other officers, 120,000 infantry, 20,000 cavalry, and 6,000 artillery. Every Mexican between the ages of twenty and fifty is liable to military service in case of war.

The naval force consisted in 1901 of the dispatch steamers Democrats and Mexico, of 450 tons each, dating from 1875; the gunboat Independence and Libertad, each of 425 tons, about as old; and the school-ship Zaragosa, of 1,200 tons, built in 1891. An armored river gunboat has been ordered; and 5 first-class torpedo-boats, an armored-clad vessel, 2 cruisers, 4 gunboats, and 2 transports were authorized to be built. The Tampico and Vera Cruz, small gunboats, were launched at Elizabeth, N. J., in 1901, and work was begun on 2 cruisers of 1,800 tons.

Commerce and Production. — The production of corn in 1899 was 32,927,278 hectoliters; of wheat, 252,720 metric tons; of rice, 23,103 tons; of beans, 3,288,847 hectoliters; of sugar, 68,607,603 kilograms; of coffee, 27,807,641 kilograms; of molasses, 62,070,460 kilogram; of spirits, 1,117,877 hectoliters; of cotton, 22,487,517 kilograms; of henequen, 118,574,440 kilogram; of logwood, 45,432,948 kilogram; of copal, 1,062,717 kilogram; of tobacco, 7,686,767 kilogram; of fermented liquors, 6,530,206 hectoliters. In the five years from 1894 to 1898 inclusive, the titles of 1,818,657 hectares of land were granted to companies which surveyed and mapped public lands, receiving a third of all they surveyed; settlers from 1893 to 1898 inclusive acquired titles to 735,592 hectares, and 475,141 hectares were sold from 1894 to 1898 inclusive; colonists from 1896 to 1898 received 2,500 hectares. There were 13 agricultural settlements, containing 3,926 colonists, which the Government established, and 12 with 3,926 members, were founded by colonizing companies and private individuals.

The Mexican Government, in order to extend the cotton crop, purchased from 1899 on, which 84 produced gold, 278 gold and silver, 117 gold and other metals, 256 silver, 171 silver and lead, 114 silver and other metals, 34 zinc, 34 copper, 20 copper and iron, 30 lead with zinc and iron, 40 antimony and cinnabar, 7 sulfur, tin, and graphite, and 425 were not yet productive. The value of ores produced was $50,044,000. The number of mines worked was 1,080, including 1,288 women and 5,582 children. In the year ending June 30, 1899, the quantity of gold presented at the mints and assay offices was 5,986 kilogram, valued at $4,043,574; of silver, 1,147,218 kilogram, valued at $35,985,400; total value, $62,025,744. In addition to this there were exported 5,086 kilograms of gold, value $3,421,700, and 903,939 kilograms of silver, value $39,068,491; total value, $42,011,191. There were 2,211 distilleries in 1899, producing 844,858 gallons of spirits. There were 118 cotton factories, with 468,547 spindles, 13,944 looms, and 27 machines for printing calico, consuming 57,501,517 pounds of cotton and producing 3,755,446 pounds of yarn and 9,875,946 pieces of cloth. The number of tobacco factories was 121, and these worked up 5,456,567 kilogram of tobacco leaf.

The total value of imports in the year ending June 30, 1901, was $97,024,498 in value, against $84,983,672 in 1900; of exports, $55,165,203 in 1901, against $50,393,474; of animals, $11,405,129, against $10,033,713; of manufactured products, $2,995,046, against $2,913,687; of miscellaneous products, $362,557, against $688,914. The bulk of the trade in the year ending June 30, 1901, was distributed among different countries as follows:

<table>
<thead>
<tr>
<th></th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$85,165,203</td>
<td>$117,280,328</td>
</tr>
<tr>
<td>Great Britain</td>
<td>9,984,000</td>
<td>13,283,977</td>
</tr>
<tr>
<td>Germany</td>
<td>7,084,749</td>
<td>5,018,464</td>
</tr>
<tr>
<td>France</td>
<td>6,856,105</td>
<td>5,962,303</td>
</tr>
<tr>
<td>Spain</td>
<td>2,875,748</td>
<td>1,187,714</td>
</tr>
</tbody>
</table>

The imports at the port of Vera Cruz in 1901 were $22,529,154 in gold, and exports $21,892,184 Mexican; imports at the port of Tampico were $9,712,566 gold and exports $43,880,140 Mexican.

Navigation. — The number of vessels engaged in foreign commerce registered at a Mexican port during 1900 was 1,541, of 2,245,166 tons; in the coasting-trade, 7,364 vessels, of 4,425,263 tons. The merchant marine, including small coasters, consisted of 1,901 vessels, of 3,961 tons, and 50 sailing vessels, of 8,445 tons.

Railroads, Posts, and Telegraphs. — The length of railroads in operation in 1901 was 9,000 miles. The Tampico-Boca del Rio Railroad from Coatzacoalcos on the Gulf of Mexico to Salina Cruz, on the Pacific, 190 miles, completed as a Government undertaking in 1895 at a cost of $27,000,000. The Gulf and Colorado Railway, 1,869 miles, completed in 1895, and the Mexican and United States Railroad, 353 miles, completed in 1895, were formerly owned by the English Government.

The post-office in 1901 handled 148,085,513 letters and postal cards; receipts, $2,135,570; expenses, $2,038,512.

The telegraphs in 1900 had 42,843 miles of line, of which the Federal Government owned 28,550 miles; number of despatches, 2,604,711. The length of telephone-lines was 18,935 miles.

The Yaqui War. — The Mexican Government in a guerrilla warfare which has lasted twenty-four years, with only two intermissions of two years, has yet not subdued the Yaqui tribe in northern Mexico. In 1902 the war was waged more relentlessly than at any previous time. The Yaquis rebelled immediately after Mexican independence in 1821, and whenever the Mexican authorities attempted to impose their jurisdiction a war resulted. The last long war was broken by the peace signed at Ortiz in 1897, but the Indians again renewed hostilities as soon as they had repaired their strongholds, and since then 3,000 Mexican soldiers have been kept busy in a final effort to reduce the tribe to submission. The Yaquis are such brave and able fighters that a band of 40 on occasions held off several times as many Mexican soldiers. In 1901 they lost several hundred brave, and in the first half of 1902 their losses were still heavier. In a skirmish that occurred in July in Sonora near Turin 35 of them were killed, while the Mexicans lost only 5 men. When beaten they hide themselves in the mountains where the troops of Gen. Torres can not penetrate. Their hatred of whites dates from the time of the Spanish conquest, when they were subjected to frightful cruelties, and yet were not conquered. From 1860, the estimate of their number at that time, and their present number is about 3,000, and in 1821, five of their pueblos having been destroyed by the Spaniards during three centuries.
of warfare. They fought bravely in the army of Gen. Iturbide for Mexican independence, and when left to themselves they prospered and increased, raising grain and working silver- and copper-mines. The copper-mines, the best in Mexico, in the course of the last war were seized by the Mexican Government and now belong to American companies. The cession of a part of their lands to the United States in 1848 by the peace of Guadalupe Hidalgo was the first of their grievances against the Mexican Government, and many others have arisen since. In the resulting war the property of the tribe and thousands of warriors have been sacrificed and over 20,000 Mexican soldiers have fallen in battles and skirmishes in eastern Sonora and northern Chihuahua. The women worked to earn money to provide arms and ammunition, made powder and bullets, defended the mountain passes, and sometimes fought in the regular battles. In the beginning the Yaquis were often successful than the Mexicans. The Yaquis formally rebelled against the Government and asserted their independence in 1878, and Gen. Cajeme, their Governor, took command of the rebel army, which for seven years held the mountain strongholds and passes against 5,000 Mexicans under Gen. Pequeira. Two years after Cajeme was shot the defensive war was continued. When the Mexicans at last penetrated their country and captured their mines their hands began to raid the surrounding country, and women and non-combatant men and boys went out to work in mining, ranches, and fisheries the means of keeping up hostilities. The peace of Ortiz was brought about by the mediation of American miners in Sonora and Chihuahua. Before the end of 1898 the Yaquis again declared war, on the ground that the Government took away their boys and girls from the reservations to be educated in Government schools. An attempt was made in July, 1902, to surround and capture about 150 braves in the San Mateo foothills by the stealthy advance of several columns. The Indians learned of the movement, slipped into the valley before the advance, and after strangling the sentries massacred one column in the darkness, and bound the officers to trees before an alarm could be raised. Their boys become sharpshooters at sixteen and all are provided with Winchesters. In order to cut off supplies from the strongholds and prevent boys from joining the fighters the Government in August, 1902, decreed that every Yaqui of either sex, whether living in the pueblos or working on ranches, must be treated as a prisoner of war. Then men are put in chain-gangs at Hermosillo, the women and children sent to a reservation in southern Mexico, the boys placed in a military school at Vera Cruz to be trained for the Mexican army.

**Michigan.** (See under United States.)

**Minnesota.** (See under United States.)

**Mississippi.** (See under United States.)

**Missouri.** (See under United States.)

**Monaco.** The principality of Monaco is an enclave in the department of the Alpes Maritimes, with a front on the sea. The reigning prince is Albert, born Nov. 13, 1848, who succeeded his father, Charles III, on Sept. 10, 1889. The extent of the principality is 8 square miles and the population is 15,180, of whom 3,292 are in the town of Monaco and 3,794 in the town of Monte Carlo.
MORAVIANS.

Carlo. A Governor-General, G. M. Olivier Ritt, is at the head of the administration. The Prince has, as is the custom of this province, a large staff of officers; Russia, 30 members; and the Diakons mission-aries and their children, 90; making a total for the province and its affiliated missions of 5,130.

The British derived their income from the gambling house at Monte Carlo. A syndicate obtained the concession for fifty years in 1863, paying 1,500,000 francs a year. In 1898 an extension till 1947 was obtained, the company agreeing to pay 10,000,000 francs in 1899 and 15,000,000 francs in 1907, and to increase the annual payment to 1,750,000 francs in 1907, to 2,000,000 francs in 1907, and in 1917, and in 1917, and in 1917, and in 1917, and in 1917.

The estimated receipts of the company for the year ending March 31, 1900, were 23,750,000 francs, of which 23,000,000 francs came from the gaming-tables and 750,000 francs from hotel and restaurant receipts. Besides the annuity of 1,250,000 francs paid to the Prince of Monaco, the company paid 2,600,000 francs for renewal of the concession, 500,000 francs for government and police, 250,000 francs for lighting, 250,000 francs for the bishop and clergy, and 900,000 francs for other expenses for the principality; total, 5,850,000 francs. The expenditure on the Casino was 6,100,000 francs, including 2,500,000 francs for cost of management, 250,000 francs for repairs, 750,000 francs for newspaper subscriptions, 4,000 francs for the theater and orchestra, and 600,000 francs for other expenses. The balance to be divided among the stockholders was 12,000,000 francs, 40 per cent. on the capital stock, which is 30,000,000 francs.

MONTENEGRO (Other United States.)

MONTENEGRO, a principality of the Balkan peninsula. The reigning Prince is Nicholas I, born Oct. 7, 1841, nephew of Danilo I, whom he succeeded on Aug. 14, 1893. The heir apparent is Danilo Alexander, born June 29, 1871. The legislative power is vested in a State Council of 8 members, of whom 4 are nominated by the Prince and 4 are elected by the male inhabitants who bear arms or have borne arms. The President of the Council of Ministers is Voivo Dejo Petrovic.

The area of Montenegro is estimated at 3,630 square miles, the population at 228,000. The budget for 1902 shows a revenue of 250,000 florins from the land tax, 360,000 florins from customs, 1,300,000 florins from duties, and 440,000 florins from other sources; total, 1,250,000 florins. Expenditures were estimated at the same, including 157,000 florins for the civil list, 90,000 florins for administration and justice, 50,000 florins for education and worship, and 58,000 florins for the army and police. The debt amounts to 900,000 florins. All young men capable of bearing arms are trained for the army, except Mohamedans, who pay a military tax. The strength of the army is 35,870 infantry and 856 artillery. The chief products are corn, tobacco, oats, potatoes, barley, buckwheat, wine, olives, hides and skins, wool, cheese, insect powder, smoked sardines, honey, and beeswax. The value of imports in 1898 was 1,405,580 florins, and of exports 1,179,960 florins. The merchant navy consisted in 1900 of 17 sailing vessels, of 3,772 tons. A concession has been granted for iron-mining, and a railroad from Anti variability to Nikske, 100 miles, will take the place of all kinds of travel. There are 400 miles of telegraph-lines.

MORAVIANS.

The statistics of the Moravian Church, published officially in July, 1902, give a surprising indication of the influence of the "home province." In the European or German Province 23 congregations, 7,772 members, and a net increase of 38 members reported for 1901. Connected with it are 30 American mission stations, their members, Russia, 30 members; and the Diakons missionaries and their children, 90; making a total for the province and its affiliated missions of 5,130.

The British derived their income from the gambling house at Monte Carlo. A syndicate obtained the concession for fifty years in 1863, paying 1,500,000 francs a year. In 1898 an extension till 1947 was obtained, the company agreeing to pay 10,000,000 francs in 1899 and 15,000,000 francs in 1907, and to increase the annual payment to 1,750,000 francs in 1907, to 2,000,000 francs in 1907, and in 1917, and in 1917, and in 1917, and in 1917.

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The Moravians, a colony of Bohemian lutherans, came to America in 1737 and settled in western Pennsylvania. Their church is recognized as a part of the Lutheran Church by the Augsburg Confession and the 24th Article of the United Lutheran Church. The Moravians are noted for their missionary work and their cooperation with other denominations. They have established numerous schools and hospitals, and have contributed generously to the support of the American Lutheran Church. The Moravian Church in America is divided into five districts: Pennsylvania, Maryland, Virginia, North Carolina, and South Carolina. The total membership of the church is approximately 20,000, with about 1,000 full-time missionaries and 5,000 part-time missionaries. The church has several publications, including the Moravian Bulletin and the Moravian Observer. The Moravians are known for their simplicity, charity, and dedication to education and social justice. They have played an important role in the development of the United States, particularly in the areas of education and social welfare. Today, the Moravian Church continues to be an active and influential part of the American religious landscape.
valuable, and much interest was taken in marking sites in connection with the ministry of the Church. Papers were read on the circumstances under which the society was called into existence, accounting among other things, for the simple vesper supper which is one of the features of the anniversary meetings; Early Mission Work among the Cherokees of Georgia; and "The Graveyards of Nazareth," in which some of which some of the first refugees from Bohemia and Moravia are buried.

The synod of the British Province met in London, Aug. 5. Among the subjects considered were the relation of the British Province to the foreign mission work of the Church; home missions and evangelistic efforts; and the salaries of the ministers of the province. With the view of securing an increase in the number of missionaries sent out by the province, steps were determined upon for the proper preparation of candidates for missionary service, and for the publication of tracts and pamphlets intended to stimulate interest in and furnish information concerning missionary work.

Morocco, an empire in northern Africa. The Emperor is a absolute monarch, ruler in temporal and spiritual affairs, deferring occasion, to the Viceroy of Tangier. In religion, the offshoot of Tafilat and often in civil affairs to his Grand Visier or Chamberlain. The reigning Emperor is Mulai Abdul Aziz, Sultan of Fez, Tafilt, Marrakesh, and Sus, from Feb. 24, 1878. The grand vizierate was vacant in the beginning of 1902. The Minister of Foreign Affairs was Abdelhelm ben Sliman; Minister of War, Kaid el Mehedi el Mekhliff, Minister of Interior, El Fadhel; Grand Chamberlain, Driss ben Aich; Representative of the Sultan for Foreign Affairs at Tangier, Hadji Mohammed ben el Arbi el Tores.

The boundary of Morocco in the Sahara is not settled. The area of the empire is supposed to be about 219,000 square miles, with 5,000,000 inhabitants or more. The population has been estimated at 9,250,000, comprising 3,000,000 Berbers and Tuaregs, 2,200,000 Shellah Berbers, 3,000,000 Mued Arabs, 700,000 wandering Bedouins, 150,000 Jews, and 200,000 negroes. There are 1,000 Christian subjects in Tangier. Fez, the northern capital, has about 140,000 inhabitants; the city of Morocco, the southern capital, 40,000; Tangier, the seaport on the Strait, 30,000. The Sultan's army consists of 3,000 Askari infantry trained by a British soldier; a negro guard of 3,000 cavalry; 8,000 Mekhazni, a species of mounted police; 800 arabs, 120 gendarmes, and 3,000 regular cavalry and infantry. The Sultan's revenue, derived from tithes, taxes, monopolies, and presents, is believed to be about $2,500,000. The value of the imports in 1900 was estimated at £1,634,876 sterling, including coin and bullion; exports, £1,787,075. The value of cotton goods imported was £698,130; sugar, £342,628; tea, £102,508. Exports of almonds were £332,840 in value; wool, £184,600; eggs, £171,110; beans, £154,595; goatskins, £126,308; wax, £88,153; hides, £41,710; olive oil, £27,531; bird-seed, £25,870; sheepskins, £23,545; gum, £22,157. The tonnage entered at the ports of Morocco in 1900 was 1,007,374 tons. The crops were good in 1900 that the Sultan suspended the law prohibiting wheat exports for one year more and reduced the export duty by a third.

Political Affairs.—In January, 1902, a special mission accompanied the British minister, Sir Arthur Nicholson, to the court of the Sultan at Marrakesh, the southern capital. French influence was strengthened by the removal of difficulties relative to the Algerian war and the assurance that France had no designs on the oasis of Figig, where the Sultan proceeded to levy taxes on sheep and palm-trees for the first time. The French military mission at the Moorish capital was increased by artillery officers detailed to instruct native soldiers in the handling of field-guns that the French Government presented to the Sultan. France concluded a protocol delimiting the territories in the southern part of the empire beyond the line laid down in the treaty of 1848 and determining the zones in which the tribes assigned respectively to French and to Moroccan were to live. Raiders from the Moorish oases killed two French officers, and whenever Frenchmen visited Figig they were liable to attack. A Franco-Moorish commission carried out the delimitation in the spring. Work on the French Sahara Railroad was stopped at Wad el Hassi in the expectation that instead of the original route the French could obtain the Sultan's consent to an oblique line approaching nearer to Figig. He consented to its extension beyond Figig to Djennan Edelar, causing anxiety to the rival of Shari, the owner of Tafilt, and the extension of French commerce and French political influence through this railroad confining Morocco on the southeast. An arrangement for keeping order in Figig was made between Morocco and France in July, 1901. In February, 1902, the Moorish Governor, military commander, and frontier commissioner, Si Mohammed Guebbas, arrived with a soldiery of 300 soldiers, accompanied by Gen. Cauchenez, the French commissioner appointed under the agreement for two years, who had a strong force at the neighboring French military post. Moorish and French companies of soldiers marched side by side after the commissioners to impress upon the natives the reality of the arrangement by which the troops will cooperate in repressing lawlessness and the commissioners of the two governments will decide frontier disputes in consultation. So long as the Sultan's representative had to depend on a local force from 5,000 resident in Tangier, dis-embellished and bands roved the country on the French side of the border as well as on the other, finding in Figig a safe asylum whither the pursued could flee. A French garrison has been installed in Figig and in the regions beyond a system of common policing has been adopted for the prevention of frontier incidents. A Moorish embossed and the tribes of the Near East, Petersburg. The Sultan arrived at Fez on March 15, in time to celebrate the Id el Kebir festival on March 20 and to receive on March 27 the tribute of cattle, produce, and manufactures levied three times a year. The Sultan had set out from Morocco city at the beginning of the month and tarried at Rabat and Mekinez. Mulai Abdul Aziz, who came to the throne at the age of fourteen, had nothing to do with affairs of state while the despotic Vizier Sid Ahmed was alive and ruled the country with an iron hand. The young Sultan assumed control at the age of twenty. He soon displayed progressive tendencies and a reforming spirit. He sought advice from Europeans and fell in with the schemes of reform which the foreign representatives in rivalry urged upon his consideration, showing keen sensitiveness to European public opinion. The corrupt system by which the higher officials sell offices and extort contributions from the poorer classes was left in rank down to the local sheikhs who prey upon the people he determined to reform. He interested himself in the workings of constitutional
government and in educational systems abroad and desired to keep on good terms with the powers. He took pleasure also in automobilizing and surrounded himself with modern inventions and the conveniences of civilized life. His father had exhibited liberal tendencies in the early part of his reign, but although an autocrat of energetic character, he gave up the idea of revolutionary reforms repugnant to the official class and the fanatical element. The son was more their Arab neighbors. For seven years the court had been absent from Fez and they had gone untaxed and ungoverned. The rising began in the usual way with robbing of caravans and pillaging of Arab villages. When the harvest is garnered it is no uncommon occurrence for them to indulge their pugnacious instinct by engaging in intertribal fights, and only at long periods will their unrest manifest itself in open and united defiance of the Government. There

helpless because he had not the means to keep up a strong military force, and was even obliged to dispose of some of his jewels to maintain his state. After his arrival at Fez the Sultan showed civilities to the foreign consuls and European officers and engineers in his service such as had never before been extended to Christians. He carried out his promise to reform the prisons in Fez. Overcrowding, bad sanitation, fetters, and cruel punishments were done away with, and, as the result of inquiries into the causes of incarceration, many prisoners were set free. An expedition of 2,200 Moorish soldiers, accompanied by a Spanish officer, marched from Tangier in January to punish the Beni Mesara Kabyles and recover Spanish children abducted by them. By arrangement French and Spanish squadrons anchored in Tangier harbor. The expedition was reinforced by 4,000 infantry and cavalry and many guns. The Beni Mesara were brought to submission, and the troops proceeded to chastise the Beni Aros, to whom the robbers fled with the kidnapped girls, who were not rescued, although the campaign lasted three months, but the lawless tribes were subjugated.

Rebellious Uprisings.—In the summer the Berber tribes in the country surrounding Mekinez broke out in one of their periodical insurrections against the rule of the Arabs. They are of the pure Hamitic stock, speaking the distinct Shilha language, and are habitually hostile to is always a disorderly element addicted to robbery when an opportunity is offered. The first attacks on caravans by Beni Metir and Geruan tribesmen were allowed by the Government to go unpunished, and when the attacks became frequent the Mekinez traders and Arab villagers retaliated by burning the stacks and seizing the cattle of the Berbers. The Government hesitated to employ troops against the Berbers because the soldiers when sent to restore order proved as lawless as they. The disorders thus grew with impunity until toward the end of August, when the Berbers had repeatedly raided up to the walls of Mekinez, despite the reinforcement of the garrison by 1,000 men, and a band of several hundred mounted men entered and plundered the cattle market. Sid Mohammed el Amarani, the Sultan's uncle, then brought reinforcements and Maxim guns from Fez, and attacked the Berbers in front while Arab tribes on the north fall upon the villages of Geruan from the opposite quarter. The troops, infantry for the most part, who could not come within fighting distance of the Berber horsemen, were disorderly and unmanageable, and committed the blunder of looting and burning the Beni Metir villages. This, the most powerful tribe, although members of it had robbed caravans, still remained loyal to the Government and sent levies to fight for the restoration of order. Now the Beni Metir Berbers joined those of Geruan and Zimmur in the rebellion. Their con-
tinent of soldiers deserted on Sept. 25 and burned Arab villages near the town that were still left standing. The country was already devastated, the Arab farmers having fled northward. In the town the riotous soldiery, between 3,000 and 4,000 in number, were as dangerous as the rebels, robbing by wholesale and murdering those who defended their property. The commanders were so jealous that no two of them would take part in the same action. In this perilous situation, while the Berbers held all the roads and had burned the Government granaries within the outer wall, the Zimmur and Geruan chiefs unexpectedly on Sept. 26 came under a flag of truce to seek peace. They were ready to make absolute submission and to make good all damage they had done and pay any fine or suffer any punishment that the Sultan ordered. While negotiations were proceeding they were interrupted on Oct. 15 by an attempt of 500 Zimmur tribesmen to capture the camp of the Govern-

ment troops by surprise. Failing in this, they sought shelter with the other tribes, and when this was refused, they surrendered. While the Sultan’s troops occupied their country all the rebel chiefs went to Fez to make their submission to the Sultan.

On Oct. 17 a fanatic who had come to Fez from the neighboring Udaya tribe with the set pur-
pose of killing a Christian, murdered Dr. David J. Cooper, a British medical missionary, though he was a Sharif, or descendant of the Prophet, and although he took sanctuary, the be stabled in the university building. There is another, a wide-spread legend, that in the time of imminent peril a prophet would come out of the east, the forerunner of the Mahdi, the deliverer of Islam, and gather about him a body of devoted followers who would march into Fez, pro-
tected by his miraculous powers from all weapons; and there, in the great mosque, he would summon the master of the hour, the Mahdi him-
self, and arm him with a sword plucked from the center of a marble column with which to go forth to conquer the world.

A man appeared who was hailed as the for-
runner of the Mahdi. He was of low birth, but had received an education, and having disgraced himself in some way, went abroad and in Algeria and Tunis gained knowledge of the world and skill in legerdemain. Returning to Morocco, he went among the Berber tribes, convincing them of his sanctity by his humility in riding a donkey while his servant was mounted on a horse, and by his power to work miracles, as his conjuring tricks were deemed to be. He col-
lected alms to a large amount, and finally, in Ghiata he was either spontaneously acclaimed or designedly assumed the rôle of the forerunner of the Mahdi. The fame of Bu Hamara, the donkey father, as he was called in recognition of his humility, spread, and devoted followers gath-
ered about him from Fez and all parts of the land who made him in the part of prophecies of the Mahdi and destined deliverer of the coun-
try from the Christian peril. He need but thrust

Sultan had him arrested and summarily exe-
cuted. It was the love of the Sultan for Euro-
pean things, his friendliness to Europeans and adoption of reforms and innovations suggested by them, that prompted the murderer, that was one of the causes of the Berber insurrection, that gave rise to doubts and fears among all classes and angry dissent in the official world. There is a legend at Fez that Christian horses would yet his hand into his donkey’s pannier to withdraw it full of money; he need but wave his cloak, and tribes rose in arms against each other; he need but gaze into the face of intending assassins, when their bullets would fall harmless into his lap; he need but curse a village to have it devoured by flames; the army led by him was invincible because the lead in the enemy’s rifles turned to water—such were the tales about his
supernatural powers. Coming out of the wild mountain region, he reached the town of Tesa on Oct. 23, where he was received as a prophet and deliverer. He preached the massacre of Christians and the overthrow of the fatherless Sultan, and said that when his army, miraculously protected from harm, marched into Fez, the Jews’ quarter would be consumed by a fire from heaven, leaving none but true believers to greet the Messiah of Islam when he appeared; but he himself should rule over Morocco, his Sharifian descent being equal to that of Mulai Abdul Aziz, for he claimed to be the Sultan’s elder brother, Mulai Mohammed, freed from prison by divine power to become the Moorish prince of true believers. Prince Mohammed, whom the fanatical Moslems had desired for their Sultan when 86 Ahmed ben Musa had placed Abdul Aziz on the throne without giving the people a free choice, his acclamation as successor of Mulai Hassan by the people in Fez having been a sham manifestation arranged by the Vizier, was Immured in the palace at Mekezin, where he was still kept under guard because the tribes wanted him still. When the rebellious Berbers attacked Mekezin they were repelled and Mohammed made him Sultan. The pretender was in fact Omar Zarahuni, born of a common family in Ulad Yusef, but he convinced the people that he was the Sharifian prince because Mohammed was known to have a birthmark over one of his eyes and he had a similar mark. From Tesa he sent messages to the tribes announcing his holy mission, calling on them to obey him as the rightful Sultan. When he raised his standard and prepared to march on Fez the Government was stirred to action. Mulai el Kebir, brother of the Sultan, led out a force of 2,000 infantry and 600 cavalry, reenforced later by more horsemen. The armies came face to face at Ulad Taher, and there both pitched camp, and each waited for the other to strike a blow. Bu Hamara’s force was swelled daily by new recruits who continued to flock in; yet the imperial army, in spite of imperative orders from Fez, still hesitated inaction until the dawn of Nov. 3 the pretender’s horsemen dashed into the unguarded camp, massacred the sleeping soldiers, seized the stacked arms, and would have slain the Vizier, had not a group of irregular horse of the Beni Hassan tribe opened fire, upon which Bu Hamara’s warriors, undeceived as to their immunity from death and wounds, in turn smitten with terror, fled quaking and were pursued by the surviving remnant of the Sultan’s troops, who captured many prisoners and returned to Fez with the heads of a score of the pretender’s slain adherents, to be nailed at the city gates as a warning to traitors. Bu Hamara himself slipped away during the fight with his lieutenants and his treasure and escaped to the mountains, where he easily persuaded his routed followers who found him there and others who arrived in increasing numbers that the rash attack was the act of others who depended on human initiative, and that the slight mishap was needed to try the faith of his army and teach men to trust only in his inspired leadership.

The Benadir Kaybylees, contaminated with the antiforeign and restless spirit with which the whole country was rife, demanded of the Governor of Tetuan the release of the murderer of an Englishman and of other prisoners confined in the city, and when he refused they threatened to raid Tetuan. The Government sent a steamer with ammunition and stores, and Spanish, British, French, German, and Russian war- vessels to defy the rebels. The rebels took captives, but released them, surrendered the booty, and prayed for pardon before the imperial forces moved. The pretender, with a larger and more enthusiastic army, advanced again from Ghiata toward Fez. The Sultan’s army, affected by the wave of religious zeal, depressed by doubt and fear, fought half-heartedly when the forces met east of Fez on Dec. 28, was defeated with a loss of 300, and could not be rallied, but fell back upon Fez and allowed the rebels to invest the capital and cut the aqueduct that supplied the city with water. The Sultan attempted to break out with his most reliable troops, but was foiled by the rebels. The fortress of Rasella, close to Fez, was evacuated by the Sultan’s troops. The pretender invited the Berber tribes late in rebellion to embrace his cause, while the Sultan’s hopes lay in the Kabyle tribes in the south. When Fez was seriously threatened and the soldiers and inhabitants of the country deserted him, the Sultan, so that he dared not appear unless surrounded by his faithful body-guard from the south, he sent for his brother Mohammed, exhibited him to the army and told them that he and Bu Hamara were the same was false, and went through the form of a reconciliation, though he kept him still under guard.

NATIONAL ACADEMY OF SCIENCES.
The officers in 1902 were: President, Alexander Agassiz; Vice-President, Asaph Hall; Foreign Secretary, Ira Remsen; Home Secretary, Arnold Hague; Treasurer, Charles D. Walcott till April 20, when he was succeeded by Samuel F. Emmons. Two meetings were held in 1902. The first or stated meeting was held in Washington, D. C., April 15 to 18. On that occasion the following papers were presented: On the Coral Reefs of the Maldives and On the Theory of the Formation of Coral Reefs, by Alexander Agassiz; The Physiological Station on Monte Rosa, by Henry P. Bowditch; Psychophysical Fatigue, by J. McKeen Cattell; The Present Aspect of our Knowledge concerning the Color Saturation, by Seth C. Chandler; On Catalysis, by James M. Crafts; The Disintegration of Comets, by Asaph Hall; Determination of the Weight of the Vapor of Mercury at Temperatures below 100°, by Edward W. Morley; On Some Optical Properties of Asphalt, by Edward L. Nichols; Evolution of the Titanotheres: III. Models and Restorations. Homoplasy and Latent Homology: A Correction, and Evidence that North America and Eurasia constituted a single Zoological Realm during the Miocene and Cenozoic, and that Correlations can be established as a Basis for Uniformity of Geological Nomenclature, by Henry F. Osborn; Monograph of the Bombycine Moths of America, including their Transformation, with a Revision of the Known Genera: Part III. Sphingicampide, by Alpheus S. Packard; The Classification of the Sciences, The Postulates of Geometry, and the Color Spectrum, by Seth C. Chandler; The Distribution of the Stars and The Variability in Light of Eros, by E. C. Pickering; The Atomic Weight of Cesium and The Significance of Chan-
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The Compulsory Introduction of the French Metric System into the United States, by William Sellers; and A New Computation of the Coefficients of Precession and Nutation, by Ira Isen Sterner, a non-member. Also the following biographical memoirs: John Gross Barnard, by Henry J. Potter; Francis Amasa Walker, by John S. Billings; John Strong Newberry, by Charles A. White; and William Augustus Rogers, by Arthur Searle, a non-member.

The public business included the election of Samuel F. Emmons to the office of treasurer, made vacant by the resignation of Charles D. Walcott, and the election of the following members to the council: John S. Billings, Henry P. Bowditch, George J. Brush, Simon Newcomb, Charles D. Walcott, and William H. Welch. The following new members were elected: William Wallace Campbell, director of Lick Observatory, Mount Hamilton, Cal.; George Ellery Hale, Professor of Astrophysics and director of Yerkes Observatory of the University of Chicago, Williams Bay, Wis.; Clinton Hart Merriam, director of the United States Biological Survey, Department of Agriculture, Washington, D. C.; William Trelease, Professor of Botany in Washington University, St. Louis, Mo., and Charles Richard Van Hise, Professor of Geology in the University of Wisconsin and geologist on the United States Geological Survey. Madison, Wis.

The scientific session was held in Johns Hopkins University, Baltimore, Md., Nov. 11 and 12, 1902, when the following papers were read: On Elephants and the African Instinct, by A. L. J. Ander Agassiz; A New System of Positions for Standard Stars, with Notes relative to its bearing upon Sidereal Astronomy, by Lewis Boss; The Embryology of Salpa Cordiformis, by William K. Brooks; The Spectra of Stars of Secchi's Fourth Type, by George E. Hale; Complete Skeleton and Restoration of the Cretaceous Fish Portheus Molosese Cope, A New Small Dinosaur from the Jurassic or Como Beds of Wyoming, apparently a Bird-Catcher, and New or Little-Known Elephants and Mastodonts of North America, by F. P. M. Penfield; A Biographical Memoir of Henry A. Rowan, by T. M. C. Meredith. Also on the following papers by non-members: The Occurrence of Reef Corals near Beaufort, N. C., by Caswell Grave; The Trematode Parasites of the Oyster, by D. H. Tennent; The Preparation of Cells for the Measurement of Osmotic Pressure, by Horace N. Morse; A Substance with Remarkable Optical Properties and Screens transparent only to Ultra-Violet Light, by Robert W. Wood; On Displacement Currents, by J. B. Whitehead; and On the Spectrum of Hydrogen, by L. A. Parsons.

No business of public importance was transacted at this session. In the year the academy lost by death Alpheus Hyatt, Henry Morton, Ogden Nicholas Rood, and John Wesley Powell, of whom brief sketches are given under Out- CARIENS, AMERICAN.

NEBASKA. (See under UNITED STATES.)

Netherlands, a monarchy in western Europe. The legislative power is vested in the States General, consisting of the First Chamber, which has 50 members, elected by the provincial councils for nine years, and the Second Chamber, elected for four years by all citizens who pay direct taxes or are legally qualified for a profession, or who have money in the savings-bank or a salary of 275 guilders a year, or who are owners of boats or occupants of dwellings. The reigning sovereign in Queen Wilhelmina, born Aug. 31, 1880, daughter of Willem III and Queen Emma, born a Princess of Waldeck, who from the death of the late king, on Nov. 23, 1890, till Sept. 6, 1898, acted as Regent, and Queen Wilhelmina married on Feb. 7, 1901, Prince Henry of Mecklenburg-Schwerin.

The Council of Ministers constituted on July 31, 1901, was composed as follows: President of the Council and Minister of the Interior, Dr. A. Kuyper; Minister of Foreign Affairs, Dr. R. Melvil, Baron van Lynden; Minister of Finance, Dr. J. J. T. Harte van Tecklenburg; Minister of Marine, Vice-Admiral G. Kruys; Minister of War, Lieut.-Gen. J. W. Bergansius; Minister of Public Works and Commerce, Dr. J. C. de Marey Ovens; Minister of Justice, Dr. J. J. Loeff; Minister of the Colonies, Dr. T. A. J. van Asch van Wyk.

Area and Population.—The area of the Netherlands, or Holland, is 12,848 square miles. The population on Dec. 31, 1900, was estimated at 5,179,100, comprising 2,500,293 males and 2,618,807 females. Of the total 36.6 per cent. lived in towns of over 20,000 inhabitants. The census of Dec. 31, 1890, showed that the total population was 4,541,284; of foreigners, 52,625, of whom 31,865 were Germans, 14,903 Belgians, 1,307 English, and 4,560 from other countries. The number of marriages in 1900 was 39,826; of births, 39,611; of deaths, 92,043; excess of births, 70,568. The number of emigrants was 1,899, of whom 1,893 went to the United States and 6 to South Africa. Of the emigrants 907 were men, 477 women, and 515 children. The number of emigrants, native and foreign, who embarked in Dutch ports was 34,704. Amsterdam had 320,002 inhabitants at the beginning of 1901; Rotterdam, 322,185; The Hague, 212,211; Utrecht, 104,194.

Finances.—The revenue in 1900 amounted to 155,062,000 guilders, including 600,000 guilders from extraordinary sources. Of the ordinary revenue 34,849,358 guilders came from direct taxes, 49,245,119 guilders from excise, 26,342,084 guilders from indirect taxes, and 9,701,878 guilders from customs. The expenditure for 1900 was 529,512 guilders, of which 40,847,400 guilders were for the army and navy, 34,882,758 guilders for debt service, 15,282,031 guilders for public works, and 63,510,323 guilders for domestic purposes. In 1901 the estimate of revenue was 149,472,180 guilders, and of expenditure 154,755,492 guilders. The revenue for the year ending in October, 1902, was estimated in the budget at 154,002,245 guilders, of which the land tax yields 13,016,000 guilders, the personal tax 9,022,000 guilders, the tax on capital 7,464,000 guilders, the tax on incomes from trades, professions, etc., 6,300,000 guilders, excise 50,020,000 guilders, indirect taxes 22,161,000 guilders, import duties 9,618,000 guilders, the tax on gold and silver 320,900 guilders, duties 1,870,000 guilders, the post-office 11,122,000 guilders, telegraphs 2,487,000 guilders, the state lottery 651,000 guilders, shooting and fishing licenses 135,000 guilders, pilot dues 2,350,000 guilders, mining dues 2,222,000 guilders, state railways 4,182,151 guilders, share of Netherlands India in the interest and sinking-fund of the debt 3,865,000 guilders, and miscellaneous receipts 19,585,975 guilders. The expenditure for 1902 was 167,233,180 guilders, of which the civil list takes 800,000 guilders, the States General and the Royal Cabinet 881,500 guilders, the Ministers of the Interior 85,858 guilders, the Ministry of Justice 6,349,916 guild-
There were 213,864 hectares under rye, 155,535 under potatoes, 125,223 under oats, 71,836 under wheat, 48,485 under barley, 48,485 under buckwheat, 26,501 under winter barley, 25,021 under peas, 9,030 under summer barley, 8,000 under flax, 4,764 under rape, 744 under tobacco, and 68 under madder in 1899. The imports of wheat in 1890 were valued at 129,641,000 guilders, and exports at 98,215,000 guilders; imports of wheat and rye flour at 58,679,000 guilders, and exports at 19,051,000 guilders; imports of rye at 87,066,000 guilders, and exports at 39,299,000 guilders; imports of barley at 23,082,000 guilders, and exports at 15,960,000 guilders; imports of oats at 29,783,000 guilders, and exports at 25,432,000 guilders; imports of potato starch at 5,102,000 guilders, and exports at 17,420,000 guilders; imports of buckwheat at 1,381,000 guilders, and exports at 600,000 guilders; imports of beets at 83,000 guilders, and exports at 2,143,000 guilders; imports of flax at 1,443,000 guilders, and exports at 16,439,000 guilders; imports of bulbs, shrubs, and trees at 601,000 guilders, and exports at 8,210,000 guilders; imports of vegetables at 2,171,000 guilders, and exports at 47,416,000 guilders.

The yield of the herring fisheries in the North Sea in 1890 was valued at 7,393,757 guilders. The number of Dutch fishing craft was 5,719, with 19,498 men in their crews. The coal produced in 1900 was 124,538 metric tons, valued at 892,000 guilders.

The total value of imports for consumption in 1900 was estimated at 1,908,000,000 guilders; exports of domestic coal at 3,190,000,000 guilders; transit trade, 8,086,000,000 guilders. Imports of iron and steel and manufactures thereof were valued at 188,094,000 guilders, and exports at 145,380,000 guilders; imports of textile materials and manufactures at 122,814,000 guilders, and exports at 88,059,000 guilders; imports of cereals and flour at 258,180,000 guilders, and exports at 191,937,000 guilders; imports of rice at 48,106,000 guilders, and exports at 25,901,000 guilders; imports of coal at 59,383,000 guilders, and exports at 9,824,000 guilders; imports of mineral oil at 12,032,000 guilders, and exports at 52,000 guilders; imports of coffee at 50,375,000 guilders, and exports at 35,214,000 guilders; imports of butter at 741,000 guilders, and exports at 22,572,000 guilders; imports of manufactures at 2,265,000 guilders, and exports at 44,705,000 guilders; imports of sugar at 18,164,000 guilders, and exports at 53,786,000 guilders; imports of cheese at 35,645,000 guilders, and exports at 16,068,000 guilders; imports of vegetables at 2,171,000 guilders, and exports at 47,416,000 guilders; imports of lumber and wood at 59,272,000 guilders, and exports at 29,575,000 guilders; imports of hides and skins at 27,129,000 guilders, and exports at 29,060,000 guilders; imports of indigo at 4,319,000 guilders, and exports at 3,052,000 guilders; imports of copper at 85,486,000 guilders, and exports at 88,292,000 guilders; imports of salt at 6,233,000 guilders, and exports at 43,832,000 guilders; imports of tallow, grease, and suet at 23,700,000 guilders; imports of salt peter at 31,457,000 guilders, and exports at 25,388,000 guilders; imports of tin at 23,785,000 guilders, and exports at 19,101,000 guilders; imports of wool at 11,971,000 guilders, and exports at 10,879,000 guilders; imports of paints and colors at 18,033,000 guilders, and exports at 15,280,000 guilders; imports of oil seeds at 30,661,000 guilders, and exports at 15,960,000 guilders; imports of flax at 1,443,000 guilders, and exports at 16,439,000 guilders; imports of
tobacco at 10,657,000 guilders, and exports at 7,453,000 guilders; imports of gold and silver at 17,234,000 guilders, and exports at 3,490,000 guilders. The value of all articles of food and drink imported was 659,880,000 guilders, and the value of raw materials imported was 402,821,000 guilders, and the value of manufactured products imported was 243,897,000 guilders, and the value exported was 240,024,000 guilders; the value of miscellaneous products imported was 356,019,000 guilders, and the value exported was 301,285,000 guilders. The values in guilders of the imports from and exports to the principal countries in 1900 are given in the following table:

<table>
<thead>
<tr>
<th>Countries</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prussia</td>
<td>353,100,000</td>
<td>276,300,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>356,300,000</td>
<td>356,900,000</td>
</tr>
<tr>
<td>Belgium</td>
<td>307,900,000</td>
<td>175,700,000</td>
</tr>
<tr>
<td>United States</td>
<td>353,900,000</td>
<td>64,800,000</td>
</tr>
<tr>
<td>Dutch East Indies</td>
<td>275,500,000</td>
<td>68,800,000</td>
</tr>
<tr>
<td>Russia</td>
<td>141,500,000</td>
<td>10,990,000</td>
</tr>
<tr>
<td>Hamburg</td>
<td>34,700,000</td>
<td>38,300,000</td>
</tr>
<tr>
<td>France</td>
<td>51,800,000</td>
<td>50,900,000</td>
</tr>
</tbody>
</table>

Navigation.—The number of vessels entered at Dutch ports during 1900 was 12,307, of 4,975,164 tons, of which 3,325 were Dutch, of 2,381,358 tons, and of 1,272, 7,063,806 tons, were foreign; the total number cleared was 12,367, of 9,449,676 tons, of which 3,449, of 2,406,846 tons, were Dutch and 8,918, of 7,042,830 tons, were foreign. Of the total number entered 11,589, of 9,218,886 tons, were with cargoes and 718, of 256,296 tons, were in ballast; of those cleared 7,472, of 4,655,454 tons, were with cargoes and 4,865, of 4,794,225 tons, were in ballast. Of the ships entered with cargoes 63.1 per cent. and of those cleared 47.1 per cent. of the tonnage was entered and cleared at Rotterdam; at Amsterdam, 15.8 per cent. of the tonnage entered and 19.6 per cent. of that cleared; at Flushing, 7.4 per cent. of the tonnage entered and 14.2 per cent. of that cleared.

The Dutch commercial marine in the beginning of 1901 consisted of 103,698 регистровских, of 73,588 tons, and 213 steamers of 299,380 tons.

Railroads, Posts, and Telegraphs.—The length of the railroads in operation in 1900 was 1,757,267 kilometers. The total rails are 996 miles, constructed at a cost of 270, 509,000 guilders, carried 12,237,000 passengers and 7,274,000 metric tons of freight in 1900, earning 27,739,000 guilders. The expenses of the railroad company were 12,345,000 guilders. Private railroads carried 17,711,000 passengers and 4,386,000 tons of freight, earning 18,863,000 guilders and expanding 14,820,000 guilders.

The post-office during 1900 forwarded 74,800,000 domestic and 28,112,000 foreign letters, 46,613,860 domestic and 9,193,398 foreign postal cards, 140,298,000 domestic and 15,555,000 foreign newspapers and other printed enclosures, 4,180,240 domestic and 1,003,045 foreign parcels, and 336,262 domestic and 112,473 foreign money orders. The receipts from the post-office were 10,149,535 guilders, expenses 7,472,436 guilders.

The Government telegraph lines on Jan. 1, 1901, had a total length of 3,831 miles, with 14,210 miles of wire. The number of messages sent in 1900 was 3,323,672, excluding official messages; receipts were 2,151,144 guilders, and expenses 2,720,961 guilders.

Politics and Legislation.—The elections for the States General and the members of the First Chamber took place early in July. The Liberals lost 1 seat, leaving them still 27 in the upper house, while the Anti-Revolutionists and Catholics with this seat won had 22 members. The lower house was strongly Anti-Liberal, but the Cabinet of Dr. Kuyper, composed of Orthodox Protestants and Catholics, had no urgent mandate other than to keep educational and other controversial matters in abeyance. The new legislation that was not manifestly useful and imperative. In the session which closed just before the elections the most critical measures discussed were a military penal code drawn up by Prof. van der Hoeven, and a bill on military discipline. The Socialists thought that soldiers under sentence, like civilians, were entitled to a stay of execution pending an appeal. Gen. Bergansius rejected this proposal as prejudicial, but he raised no objection to a compromise offered by a member of the Ministerial party providing for the temporary suspension of a military sentence until after the house had adopted this amendment, when he declared that the Government could not accept the vote. The matter was reconsidered in order to incorporate the Cabinet from an awkward dilemma, and the clause was recast by the Minister of War himself, who had to make a concession, since Ministerialists as well as the Opposition were committed to an opinion contrary to his own. The Protectionists wished to increase the import duties on foreign sugar and, until the Brussels convention goes into effect, the sugar bounty, amounting to 2,500,000 guilders a year, in order to strengthen the crippled domestic beet-sugar industry against the still stronger competition it will have to meet when bounties are abolished. Minister Haring (now Tacke, Senator) demanded temporary measures and was non-committal as to his future policy. The Queen, who instead of giving birth to an heir, nearly lost her own life in April, opened the First and Second Chambers in person on Sept. 15. The Minister of the Colonies, Dr. van Asch van Wyk having died, Lieut.-Gen. Bergansius took the portfolio temporarily in addition to his own on Sept. 10. Baron Melvil van Lynden, Minister of Foreign Affairs, exploded the rumors that Holland was seeking powerful allies to protect her East Indian possessions from the menace of Germany and commerce, to preserve German and commercial independence, and to join the dual alliance, though less hazardous, would lead to complications and danger perhaps as fatal in the end, that it would be better to give up the idea than to sacrifice Holland's position as an independent nation; and that the colonies were not in any way menaced by the Anglo-Japanese alliance, for England could not provoke a quarrel with Holland without risk of an armed conflict with other European powers.

International Arbitration and Law.—Ideas of international law have been indigenous in Holland since the time of Grotius, and for this reason and on account of her neutral position The Hague was chosen by the Czar to be the meeting-place of the conference of 1899 and the seat of the International Tribunal of Arbitration evolved from his proposals. According to the convention concluded on July 29, 1899, the president of the permanent administrative council of the Hague Tribunal is the Minister of Foreign Affairs and the members are the diplomatic representatives of the signatory powers. The members of the Court of Arbitration appointed by the respective powers as follows: Prof. Klings, Herr von Frantzius, Prof. von Martitz, and Prof. von Bar: Austria-Hungary, Count Friedrich Schoenborn, Count Albert Apponyi, and Dr. Heinrich Lam...
guardianship, and wills and succession. In 1874 the Government of the Netherlands first broached the subject and offered to act as an intermediary in bringing about an international juristic union to harmonize as far as possible unity of private international law. The first of the conferences, which met on Sept. 12, 1893, ended in resolutions as to many points of divergence and discord. The adjustment of the multitude of differences was a work of study and negotiation extending over years. As the result conventions were concluded in 1902 in which the laws of marriage, divorce, and judicial separation and of the guardianship of minors were to a great extent harmonized in respect to the status of parties concerned and other international aspects. All the important states of Europe were represented at the conference with the exceptions of Great Britain, Greece, Servia, and Turkey. The United States and Great Britain held aloof because their systems of law differ so widely from those of Continental nations that it was considered hopeless to seek to adjust them to an international code. The conventions were signed by Germany, Austria-Hungary, Belgium, Spain, France, Italy, Luxembourg, Portugal, Switserland, Denmark, Norway, and Russia did not immediately adhere. The conventions revealed many matters in which unity can not be attained by reason of causes that are too deep to be effaced. It was found that in some laws diversity is increasing. A conference to bring about a unity of bankruptcy laws had no immediate result. Half of the international bankruptcy laws for persons only who are engaged in commerce, while in the others the laws apply to all who are unable to meet their debts. Guardians in most Continental states assume responsibilities that render the relation vastly more important than in England or America. One of the subjects discussed at the conferences was in regard to the conditions on which foreigners can sue. In 1896 Belgium, Spain, France, Italy, Luxemburg, Portugal, and Switzerland, as the result of conferences at The Hague, signed treaties adopting common rules in the reorganization, important changes and others merely recording the existing practice. In some states the bonds required from foreigners to give security for costs are made less onerous, presenting the American, and M. Komaroff the Russian case. The arbitrator came to a decision in August, awarding damages to the American sailors and officers. The ships were justices of the peace on nationality, and the conferences have tended to hasten an international agreement to that effect.

The Dutch East Indies.—The Governor-General has authority to make laws with the advice of his Council for the Dutch East Indies, subject to general laws passed by the States General. W. Rooseboom has been Governor-General since June 1, 1899. The territory is divided into the lands under direct Government administration, vassal lands, and confederated lands. For administrative purposes it is divided into residencies, divisions, regencies, districts, and desuntas or villages. Java and Madura, administered by 22 residents, are distinguished from the outpostts, which are Sumatra, Borneo, the Riau-Lingga Archipelago, Bancas, Billiton, Celebes, the Molucca Archipelago, the Sunda Islands, and western New Guinea. The total area of the Dutch East Indies is officially estimated at 73,616,000 acres, with a population at 34,000,000. Java and Madura have an area of 50,554 square miles, with 26,125,053 inhabitants, of whom 35,480 males and 27,826 fe-
Netherlands.

males in 1896 were Europeans or persons assimilated to them, about 460,000 were Chinese, 24,000 Arabs, 27,000 other Orientals, and the rest native Malays. Batavia, the capital, had 115,567 inhabitants; Soerabaya, 142,980. The number of native Christians in Java and Madura was 19,913; in the outposts, 229,065. The revenue of Netherlands India in 1901 was 149,925,924 guilders, of which 39.3 per cent. was derived from taxes on houses and estates and a total expenditure of 158,149,412 guilders, leaving a deficit of 6,177,098 guilders. There have been deficits and surpluses according to the activity of operations against the Achinese of Sumatra. The Government paid for coffee and cinchona, raised by the natives, on the culture system of compulsory labor in lieu of rent or taxes, and tin and coal from the Government mines. The receipts and the expenditures of the Netherlands in the budget of 1902 are 3,340,797 guilders from sales of Government coffee, 277,200 guilders from sales of cinchona, 19,666,697 guilders from sales of tin, 2,195,000 guilders as the salary of the Government in the profits of the Billiton Mining Company, 1,015,000 guilders from railroads, and 616,350 guilders from various sources. The receipts in India were 19,109,000 guilders from sales of opium, 18,468,000 guilders from import and excise duties, 22,449,100 guilders of land revenues, 5,651,700 guilders from sales of coffee, 10,652,000 guilders from sales of salt, 15,900,000 guilders from railroads, 3,238,000 guilders from the trade with the islands, 3,269,700 guilders from coal, and 28,721,270 guilders from other sources. About a third of the expenditure is for the Government in the outposts of the Netherlands and another third for the army and navy. The strength of the army on Jan. 1, 1900, was 1,345 officers and 36,356 men. The non-commissioned officers of the army are Europeans or half-castes. The naval forces are only partly colonial and the expenses are shared by the mother country. The personnel consisted in 1899 of 1,388 Europeans and 727 natives in the Indian marine, comprising 18 vessels, and 1,067 Europeans and 206 natives in the auxiliary squadron of 4 vessels. The soil of Java, excepting private estates in the west belonging chiefly to Europeans and Chinese and a few elsewhere, is Government property. The Government and private landowners are without exception the sole proprietors of the land in the islands, except in the case of the protection of submarine cables signed at Paris in 1882, because England declared that she would not sign the convention unless she left the action of belligerents free, a right which
the United States in the war with Spain freely exercised at Manila. Any disputes as to the construction of the German-Dutch cable convention will be decided by the International Court of Arbitration at The Hague. A joint commission in 1902 delimited the frontiers between the Dutch and the Portuguese parts of the island of Timor, which has hitherto been held jointly by both states.

The fundamental principle of the Dutch colonial policy in the East Indies is to leave the natives under the direct administration of native officials, chosen wherever possible from the families that once ruled over them, but now salaried functionaries of the state under the direction of superior white officials. The Governor-General is enabled to keep up a princely state to impress the natives and wield despotic powers. Weighty affairs he lays before the Council of India, consisting of 5 members, but he is not bound to follow its conclusions. He has authority to banish or intern either Europeans or natives who are considered dangerous to the peace of the land. The residents, who have under them 3 or 4 under-residents and 7 to 10 village officers, contain numerous regencies. The regents are the high native officials who have been educated in the Government schools for native chiefs, and it is they who govern the people through the district redunas, under whose orders are the village headmen, though under the constant supervision and direction of the controllers. The natives have an inborn respect for rank and authority, and as they are accustomed to seeing their own lordly chiefs humbly submissive to the lowest officers in the white hierarchy, with whom no native below a regent comes in contact, their reverence for the whites is unbounded. The educated Javanans who do not obtain official posts and who have not the means to maintain the manner of life for which they were prepared are a dangerous element. Another is the Moslem priests, who stirred up trouble in western Java in 1885, although the Javanans are no fanatics. The profits of the various systems of tenancy are in general shared with Chinese, while the native can get only a plot of ground on which to grow rice. The local trade is in the hands of Chinsmans, who buy the crops of the tenant farmers and sell them in Shanghai, where they are sold at a profit of from 20 to 30 per cent. The Chinese are superior in business, and in business the Chinese merchant, contractor, planter, or manufacturer excels the Javanans, but he excels them not only by his assiduity, intelligence, and skill, but by his unscrupulous, corrupt, and ruthless methods. Formerly the Chinese were nowhere allowed to acquire land. The prohibition was removed in certain districts, and since then nine-tenths of the real estate in Batavia has passed into their possession. The native peasantry have repeatedly been provoked into anti-Chinese riots and have massacred thousands of Chinsmans.

There was a lull in the conflict with the Achinese in 1902. The head rebel having been rendered helpless, the Dutch maintained their posts on the coast and in the interior without molestation and made considerable progress in suppressing piracy on the sea and teaching the guerrillas on land to respect the Dutch flag. The chief, who is recognized by the rebels as Sultan of Achin, after his defeat in 1901, when his bands were decimated and cowed and his arms and treasure used up or captured, was not able to equip a new force, and consequently his influence as a leader waned. The war, which has cost the East Indian and Dutch treasuries immense sums of money, and in which great numbers of lives of European and native soldiers have been sacrificed, began in 1873, when the Achinese, encouraged by foreigners who carried on a contraband trade from Singapore, declared their independence. They are appointed by the Governor-General, as are the army officers under the rank of general. Each residency of Java, with the exception of Batavia and the semi-independent Sultanate of Bantam, contains numerous regencies. The regents are the high native officials who have been educated in the Government schools for native chiefs, and it is they who govern the people through the district redunas, under whose orders are the village headmen, though under the constant supervision and direction of the controllers. The natives have an inborn respect for rank and authority, and as they are accustomed to seeing their own lordly chiefs humbly submissive to the lowest officers in the white hierarchy, with whom no native below a regent comes in contact, their reverence for the whites is unbounded. The educated Javanans who do not obtain official posts and who have not the means to maintain the manner of life for which they were prepared are a dangerous element. Another is the Moslem priests, who stirred up trouble in western Java in 1885, although the Javanans are no fanatics. The profits of the various systems of tenancy are in general shared with Chinese, while the native can get only a plot of ground on which to grow rice. The local trade is in the hands of Chinsmans, who buy the crops of the tenant farmers and sell them in Shanghai, where they are sold at a profit of from 20 to 30 per cent. The Chinese are superior in business, and in business the Chinese merchant, contractor, planter, or manufacturer excels the Javanans, but he excels them not only by his assiduity, intelligence, and skill, but by his unscrupulous, corrupt, and ruthless methods. Formerly the Chinese were nowhere allowed to acquire land. The prohibition was removed in

NEW BRUNSWICK.
The Speaker of the House of Assembly was Hon. C. W. Robinson. The Legislature was opened on Monday by Her Excellency, the Hon. Jabez B. Snowball, with a speech from the throne, of which the following are the significant portions:

"The death, at the hands of an assassin, of the President of the neighboring republic, with which this province has such intimate business and social relations, evoked a deep feeling of sympathy, and the Government, desiring to voice the sentiments of the people, extended to the United States Government, through his Excellency the Governor-General, an expression of the profound sympathy which we felt in all civilized nations, at the lamentable and tragic event."

"I am happy to be able to congratulate you upon the prosperous condition of business and the success attending the efforts of our people in the various pursuits in which they are engaged. The continued and rapid development of the dairying industries of the province, as shown by the increase in the production and exports of cheese and butter by the large numbers of cheese factories and creameries which have been established under the liberal encouragement afforded by the Government, is gratifying. Being satisfied that there is reason to hope for indefinite expansion in this direction, my Government will, with your approval, continue the same vigorous policy.

"The building of improved flour-mills has given considerable impetus to the growth of wheat and has resulted in saving to our people large sums of money which would otherwise be sent out of the province for flour. I am sure that you will be gratified to know that the financial assistance which you authorized for the erection of these mills has already been productive of such good results, and that you will approve of this policy being continued, so that all parts of the country may receive the benefit of Government assistance in this direction.

"Consequent upon legislation passed at the last session to provide for the development of the coal areas of Queens and Sunbury, the railway to the coal-fields is now under construction, and it will not be before the line from Chipman to Fredericton will be completed.

"The rapid development of the Canadian winter business through the port of St. John is most gratifying. Some years ago by the province toward the building of wharves and an elevator at that port, and the extremely liberal expenditure on the part of the city, have produced results which can not but prove of permanent benefit, not alone to the city of St. John, but to the whole province and to the Dominion as well, which is interested in having Canadian business carried on through Canadian ports.

"It affords me pleasure to inform you that since you last convened the Dominion Government has paid to the province the amount of the eastern extension award, with the exception of a small portion which has been withheld pending an arrangement being made between the two governments in respect to a claim regarding certain land taken as part of the right of way for the railway out of which the claim arose.

"By the recent judgment of the Judicial Committee of the Privy Council, it has been decided that the fisheries within the territorial limits of the provinces belong to the provinces, and in the opinion of my Government it follows that the amount of the Halifax award should have been paid over to not the Dominion. My Government will press for payment to this province of the portion of the award to which it is properly entitled.

"The unsatisfactory condition of the branch railways in the province, connecting with the Intercolonial, is such as to call for serious consideration. These railways have been constructed largely by means of Dominion and provincial subsidies, and are not giving that accommodation to the public which was anticipated when their construction was provided for. If some arrangement could be made by which these roads could be worked as a part of the Intercolonial system, it would be greatly to the public advantage, and there is reason to believe that they would become valuable feeders of the trunk line. You will be invited to consider whether the Dominion authorities might not properly be urged to make arrangements for their operation upon a fair and equitable basis.

"Bills to amend the public health act, providing, among other things, for the compulsory vaccination of children attending school; to amend the law regarding investments by trustees, a workman's compensation for injuries act; a bill to provide a forest reservation; a bill to provide for the importation of horses; and other measures of importance will be brought forward.

The House adjourned on April 10 after considering 88 bills and passing several measures of purely local importance and effect. The address in reply was moved on March 7 by Dr. P. King, who had recently been elected from Kings County to support the Government, and was seconded by Dr. Ruddick, who had won an election in St. John County also as a Government supporter. The Opposition leader, J. Douglas Hazen, spoke at length and was followed by the Premier.

Kings County Election.—The chief political event of the year was the contest in this county between Mr. King, the Government candidate, and Mr. Sproull, the Opposition candidate. Attorney-General Pugsley, under date of Feb. 10, issued a manifesto to the electors of the county, defending himself from the charges made in the previous year as to his non-prosecution of the men who were believed, or proved, to have manhandled and forged the electoral lists at Rothesay in that county. He pointed to his instant action in countermanding the writ for the election as soon as it was found something was wrong. He laid pointing legislation to the House voicing the bogus lists and providing against any repetition of the offense by heavy penalties. He referred to the recent discovery of oil-fields in the province; to the general prosperity of the people; to the Government's policy of building small connecting railways so as to develop the vast deposits of coal existing in Queens and Sunbury Counties; to their investigation of the province's coal resources and arrangements with the Intercolonial and Canadian Pacific Railway companies for the purchase of a certain yearly quantity. Mr. Pugsley said he was urging upon the provincial and Dominion governments the great desirability of building a railway from St. John, up through the fertile St. John river valley, to Edmundston. He pointed out how the Government had won the Eastern Extension Railway award of $275,000 from the Dominion, and were now expending it upon construction of bridges and repairs of public works; and how the policy of protest against the control of provincial fisheries by the Dominion authorities had been practically recognized.

Douglas Hazen, in behalf of the Opposition, replied to this document in a speech of great length delivered at Kingston on Feb. 15. He first handled
the Rothesay list charges, declared the Attorney-General responsible for the non-prosecution of the cases, and who had a fraudulent list, and accused him of having disfranchised the people of Kings County for nearly fifteen months. He spoke of the Opposition efforts to have the "one man, one vote" principle recognized, and declared that in 1865 Messrs. A. G. Blair, H. R. Emmerson, James Mitchell, and other members of the Government had opposed Dr. Stockton's resolution along that line. Mr. Hazen charged the Government with awarding various contracts for the superstructures of its steel bridges at prices two or three times higher than the current market rates, and without tender or competition. In financial matters he estimated the increased revenue of the Government at an average of $188,024 per annum since they took office. He also charged them with an imposition in 1900 of $94,231 in extra taxes. Yet despite these facts the public debt had increased from $757,097 on Dec. 31, 1884, to $2,815,080 on Oct. 31, 1900. He concluded by attacking the Attorney-General for receiving, indirectly, a large income from the province, though nominally only entitled to a small salary.

On March 2 Mr. King was elected by more than 200 majority, against a majority in 1900 of 820.

Opposition Policy.—In the Legislature, on April 2, Mr. Hazen, leader of the Opposition, moved a resolution condemning the views of his small body of followers in the House and presenting the party policy for the general elections which were supposed to be imminent, but which he saw nothing in the Finance.

Finance.—In presenting his budget speech on March 19, Mr. Tweedie defended the general policy of the Government in connection with lumber, mining, and railway interests, and declared that if its average revenues had increased so had expenditures upon public purposes, and he instanced the increases between 1882 and 1901 of the average yearly expenditures upon agriculture of $9,552; upon education of $36,326; upon roads and bridges and other public works of $10,539, upon the care of the insane of $14,928 more than upon those of the preceding fifteen years. He also pointed out that for ten years of the period since 1882 the Dominion subsidy had been increased by $43,000 per annum. He then made the following statement to the effect:

"The largest item in the debt is, of course, the bonded debt, which at the end of the last fiscal year amounted to $3,291,846. The responsibility for this debt may be divided as follows: Incurred by the Government of New Brunswick from federalization to the year 1883, $2,224,566; incurred by the Government from 1883 to 1901, $1,067,380; grain elevator and wharf, St. John, $17,000; Lunatic Asylum, $10,000; Dufferin Eaton wharf, $8,000; railway subsidies, $208,000; total, $1,067,380.

The net debt was $2,779,284, compared with $2,815,086 in 1900. This was caused mainly by the receipt of the Eastern Extension award of $281,821, which offset an addition to the debt, composed of $30,992 deficit between ordinary receipts and expenditures, $14,500 on subsidy accounts, $14,419 over expenditure on Lunatic Asylum, and $15,467 for the royal reception, $58,595 over expenditure by Board of Works; and $34,182 on steel bridges.

The estimated receipts for the year ending June 30, 1902, included $405,320 from Dominion subsidies, $114,000 refunded, $60,000 from fees to Provincial Secretary's office, $23,000 from taxes on incorporated companies, $25,000 from succession duties, $21,500 from liquor licenses, $40,000 from proceeds of loan for smallpox expenditures, $400,000 from public works, and $855,876. The total estimated expenditure was $805,267.

Prohibition and Temperance.—In response to a memorial presented to the Government by a large number of residents in the province (9,369) asking for the enactment of a prohibitory liquor law, a reply was made public on May 12. Reference was made to the uncertainty of public opinion upon this subject, as illustrated by the passage of the legislation of 1855 and its subsequent repeal and the recent change in Manitoba. The conclusion was that the Government did not feel warranted at the present time in engaging to take any action upon the memorial.

Public Works.—Mr. Tweedie pointed out in his budget speech that the province had to maintain under the charge of the Department of Public Works 4,000 bridges, of which 1,166 were in the main roads, with a united length of 166,000 feet, or nearly 32 miles. A total of 80 miles of bridge work to look after and keep in repair, together with 2,340 miles of main roads and lesser ones: a total of 9,000 miles. Mr. Labillois, for all these purposes, had $250,000 a year.

Agriculture.—There were 35 creameries in New Brunswick in 1901, producing 442,626 pounds of butter, worth $101,000. In 1901 producing 482,006 pounds, worth $104,818. To encourage the milling of the grain at home, the Government offered a bonus equal to 20 per cent of the cost of the roller-pressing machinery for every mill constructed in the province, and the outcome of such a policy has been so successful that to-day there are 24 well-equipped flour-mills in the province, turning out from 25 to 100 barrels a day of high-grade flour. Ten years ago New Brunswick imported cheese to the value of $500,000, while it exported last year cheese and butter to the value of $1,000,000, the change being secured by the lively interest the local authorities of New Brunswick had taken in establishing cheese factories and creameries throughout the country. The Government gave $150 to the cheese factories and $250 to the creameries, each, while the dairy school at Essex was also liberally supported.

NEWFOUNDLAND colony is an island near the Atlantic coast of Canada, owing allegiance to the British Crown, but possessed of full self-government. Population, 216,615; area, 42,734 square miles. Capital, St. Johns.

Government and Politics.—At the beginning of 1902 the Government or Executive Council was composed of Sir Robert Bond, Premier and Colonial Secretary; W. H. Horwood, Minister of Justice; E. M. Jackson, Minister of Finance and Customs; and Messrs. E. P. Morris, G. Knowling, A. W. Harvey, H. J. B. Woods, J. S. Pitts, and J. D. Ryan. Members with offices were Mr. E. Dawe, Minister of Agriculture and Mines; T. J. Murphy, Minister of Marine and Fisheries; and G. W. Gushue, Minister of Public Works, without seats in the Council.

E. D. Shea was President of the Legislative Council, and L. O'B. Furlong, Speaker of the House of Assembly. Some changes took place in the Government and in political circles. On July 15 Sir Joseph Little, Chief Justice of the island, died, and on July 26 Mr. Horwood, Minister of Justice, was sworn in as his successor. At the ensuing elections, on March 5, 1902, the Conservatives returned 20 members, the Liberals 19, the Nationals 8, and the Independent Labor 1. The election was regarded as a mark of confidence in the Liberal party.
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tice Morrison, who retired to advocate confed-
eration with Canada. H. J. B. Woods had al-
ready accepted the new office of Postmaster-Gen-
eral. On Dec. 17 Mr. Edward P. Morris, K. C.,
became Minister of Justice. The by-elections fol-
lowing these changes were not very favorable to
the Bond Government, although they could not
affect their large majority seriously. On Dec.
2 Trinity District returned 2 Opposition can-
didates by more than 300 majority to support
Mr. A. B. Morine in constituencies that had pre-
viously given a Government majority of 700.
The reciprocity policy of Sir R. Bond was one of
the chief issues. Meanwhile, on Feb. 21, the Leg-
islature had been opened by Gov. Sir Cavendish
Boyle, in a speech forewarning measures to pre-
serve the whale fisheries, establish cold storage
for fishing products, reform the municipal sys-
tem in St. Johns, protect railway employees, and
encourage iron-mining. After some stormy
scenes and the passage of a series of enactments
covering many important interests, the Legisla-
ture was prorogued on April 22. The following
bills were approved by the Governor:
Newfoundland French treaties act.
Patents (amendment) act.
Registration of deeds (amendment) act.
Writs (amendment) act.
Bank fishermen insurance (amendment) act.
Whaling industry act.
Shipbuilding (amendment) act.
Duty on foreign-built vessels act.
Grand Bank harbor act.
Deer preservation act.
Game preservation act.
Cucumber (amendment) act.
Revenue (amendment) act.
Duties (reduction of) act.
In July Sir Robert Bond went to the corona-
tion in England, took part in the Colonial Con-
feree, and was made a member of the imperial
Privy Council.

Finance.—The budget speech of the Minister
of Finance was delivered in the House of As-
sembly on March 25. For the year ending June
1901, he placed the revenue at $2,960,581,
which included $1,807,351 from customs, $35,562
from post-office services, $12,708 from fer-
ing licenses, $4,640 from liquor licenses, $6,673
from inland stamps, $4,454 from foreign fishing
licenses, $4,885 from penitentiary labor, $25,000
interest on munici-
pal deposits, and $4,818 from miscellaneous
sources. The expenditures were $2,824,852.
He said the public debt was $17,378,419, and
pointed out that the customs revenue had risen
from $1,502,589 in 1896-97 to $1,897,351 in 1900-
01, and the total revenue from $1,610,788 to
$2,060,581. The estimated receipts for the year
ending June 30, 1905, were given at $2,066,000,
including $1,875,000 from customs, $60,000 from
postal services, and $40,000 from municipal debt
interest. The estimated expenditures to be voted
by the House were $1,123,511, and those already
authorized by statute were $952,539. The au-
thorized sums included $150,266 for education
and $743,755 for interest on the public debt and
its management. The revenue for the year ending
June 30, 1902, was $2,200,000.

Trade and Commerce.—The year 1901 was a
most exceptionally prosperous period in the col-
ony, and 1902 was not behind it. The imports
increased from $6,445,000 in 1901 to $8,320,809
in the year ending June 30, 1901. The exports
increased from $4,917,758 to $6,320,809. The
imports in the latter year included beef (salted) to
the value of $183,465, butter $99,300, coal $330-
07, flour $1,167,434, cottons, woolens, silks, and
limes $1,126,306, leather and leather ware $259-
245, iron railway material, etc., $681,263, molasses
$325,266, pork $360,916, salt $126,317, sugar $125-
021, teas $162,445, tobacco, wines, and spirits $94-
369. The exports were as follows: Dry codfish
$5,171,910, herring $231,413, salmon $139,101,
lobsters $448,501, cod-oil $396,039, seal-oil $424-
632, sealskins $292,856, poster $390,779, iron ore
$455,554, lumber $63,299.

Banking and Insurance.—In his budget speech
the Finance Minister said the Government
savings-bank deposits had increased from $1,103,788
on Dec. 31, 1899, to $1,296,040 on Dec.
31, 1901. He said also that the public was in-
sured to the amount of $5,686,386 in insurance
companies, and paid premiums to the extent of
$245,834.

Temperance.—In 1866, when the population
was about 140,000, there were 6,477 gallons of
brandy, 4,201 of whisky, 120,725 of rum, 11,955
of gin, and 11,077 of wine and champagne con-
sumed in the island. In 1900, with a population
of more than 200,000, the figures ran as follow:
Brandy, 3,780 gallons; whisky, 16,120; rum, 41,-
453; gin, 2,066; and wine and champagne, 6,559.
Ale, beer, and porter rose in the same period from
37,466 to 62,248 gallons.

Population.—The census returns for 1901 were
presented to the Legislature by Sir R. Bond on
March 3, 1902. They showed a total population of
220,249, including 3,834 for the dependency of
Ladbrooke, on the coast of Canada. In 1891 New-
foundland had 197,930 inhabitants, and Labra-
dor 4,106. The chief denominations were as fol-
low in the two periods: Catholics, 72,696 in 1891
and 76,209 in 1901; Anglicaens, 69,834 in 1891 and
72,650 in 1901; Methodists, 54,276 in 1891 and
60,812 in 1901. The Salvation Army rose from
nothing in 1891 to 6,500 in number. According
to official figures published in June, 1902, the
births in the island in the previous year were
8,810, an increase of 211; the marriages were
1,781, a decrease of 83; the deaths were 3,865, an
increase of 840. The birth-rate was 30.91 per
1,000, the marriage-rate 7.95 per 1,000, the death-
rate 17.54 per 1,000.

Minerals and Mines.—The total value of the
output in 1901 in Crown lands, from crown and
mineral materials, and from Crown mines in the
Bell island mines, 738,206 tons. Estimated at
$1 a ton, this shows a total value only $53,993
short of the entire value of all the minerals
raised in the colony in 1900. The statement of the
products for 1901 is as follows: Brick, 1,305-
000 pieces, valued at $13,500; building-stone,
5,500 tons, $5,500; copper ore, 73,348 tons, $350-
000; granite, 3,240 tons, $19,710; iron ore, 738,206
tons, $738,206; limestone, 1,300 tons, $975; pave-
ing-stone, 140,000 pieces, $14,128; pyrites, 7,522
tons, $37,128; slate, 2,000 tons, $22,500; total value,
$1,211,163. The brick, building-stone, granite,
* limestone, and paving-stone were used in the
* colony, and the copper, iron and pyrite ore, and
the slate were exported to Europe and America.
Of the copper ore, 36,641 tons went to Britain,
35,767 tons to New York, and 540 tons to Pictou,
Nova Scotia. Of the iron ore, 35,830 tons went
to Britain, 213,385 to Germany, 408,617 to Can-
ada, and 76,830 to the $7,758,442 in the year ending June 30, 1901. The exports all the pyrites, and the entire export of slate went to England. The copper-ore output increased by 5,000 tons.

Fishing.—The Banks fishery for 1901 em-
ployed 116 vessels of 5,282 tons, with 1,631 men,
and produced a catch of 113,841 quintals of codfish. The seal fisheries for the same season had 19,950 seals, with a tonnage of 5,906 and crews numbering 3,836. The seals taken numbered 291,217, valued at $425,555. The increased value of the catch in 1902 was due to the better price that the men secured as a result of their strike before the fishery began. They had been receiving $3.25 a quintal (112 pounds) for their share of the catch, with a deduction of $3 a man for equipping the ship, locally known as "berth money." They demanded and were conceded $3.50 a quintal, and the abrogation of the "berth-money" charge. The sealing voyage occupied 20 steamers and 4,000 men less than eight weeks.

Lobster fishing is a decaying interest here. There were 1,440 factories on the coast in 1901, and for their protection against the illegal selling of bait to French fishermen the colony maintained 50 wardens, 2 steamers, and several smaller vessels. The staple product of Newfoundland is cod, and it concerns three-quarters of the population and constitutes five-eighths of the exports. With certain products of the cod, the total value of the industry was $8,570,756. Other fish exceeded it in value, such as John cod, herring, $171,501; lobsters, $448,501; salmon, $149,066; whale-oil, etc., $67,756.

Education.—The system of education in Newfoundland includes a council of Education made up of various denominational head masters of schools and clergymen as superintendents, with the Rev. Canon Pilot as president. There is a Church of England, English Catholic, Methodist, and Presbyterian colleges, and various denominational boards of education in each district. Each denomination has its own schools and scholastic machinery, and receives a per capita grant from the state for their maintenance. After every census there is a readjustment, and the moneys are appropriated in accordance with the population statistics then shown. The state interferes in no way except to provide for an inspection of the schools, and even the practical management of this matter is left to the head masters of the various bodies. The annual vote for education is $160,000, or 75 cents a head of the total population. It costs $3.80 a year for every pupil enrolled, and in the smaller settlements there are a few cases where the division of the grants among the denominations is largely responsible for this.

Each of the three principal denominations is allowed a superintendent and an assistant, and the salary of the chief is $1,000, and of the sides $800. In that of the Catholics, however, they have been permitted to have one superintendent for the diocese of St. John's and one for the diocese of St. George's. The former gets $1,000 and the latter $1,500. The Anglican and Methodist chiefs inspect the schools of the minor Protestant denominations each year, alternately, for which they receive a special allowance, or else the work is done by the ministers of those churches, who receive that sum instead. The school boards of each creed have jurisdiction over the harbor or settlement for which they are appointed, and they determine all matters relating to education therein, the clergyman usually exercising a very large influence.

The total expenditure for education in 1899-1900 was $155,021, and in 1900-01 it was $158,238. A measure was presented to the Legislature during the present session to reform the whole system. In the Council, on April 9, the Hon. Mr. Knowling gave the following explanation of its terms: "This bill is intended to place the education grant in proportionate ratio to the increase of population. It amends the system of the Salvation Army in its provisions, and in order to make a pro rata division of the grant. Having regard to the allocation of $25,297.87, an alteration of the law was necessary in order to apportion the amount equitably among the teachers of certain services." Union with Canada.—This question was widely discussed in Newfoundland, with mixed feelings; in Canada with almost unmixed approval. Speaking at Halifax on March 25, the Hon. A. M. McKay, one of the four Opposition members of the Assembly, made the following statement as to the feeling on the island: "I think it is not nearly as hostile as in times past. In 1896, when federation was a live question, the people of Newfoundland felt that if they entered the confederation they would be a subordinate colony, and the loss of their autonomy and self-government would lessen their importance as a colony. That probably is the opinion to-day in a lesser degree. It is of course the sentimental aspect, but that is the view that weighs with the mass of the people. It is not a party question." At the end of the session the members elected to the House were re-elected and with their support the bill for union, which had been passed by the former assembly, was passed by a large majority.

The Reciprocity Treaty.—In the summer and autumn, with these bodies. The annual vote for education is $160,000, or 75 cents a head of the total population. It costs $3.80 a year for every pupil enrolled, and in the smaller settlements there are a few cases where the division of the grants among the denominations is largely responsible for this.

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and Representatives on the ground that its terms injured the interests of the 31,000 men engaged in the New England fishing industry. The Newfound- found fishermen in market towns would, it was asserted, unduly cheapen salt fish to the American consumer. The treaty went to the United States Senate, and at the end of the year had not been ratified.

NEW HAMPSHIRE. (See under United States.)

NEW JERSEY. (See under United States.)

NEW MEXICO. (See under United States.)

NEW YORK. (See under United States.)

NEW YORK CITY. Government.—The city officers during the year were: Mayor, Seth Low; President of the Board of Aldermen, Charles V. Fornes; Borough Presidents—Manhattan, Jacob A. Cantor; Brooklyn, J. Edward Swanstrom; Queens, Joseph Cassidy; Bronx, Louis F. Haffner; and Richmond, George Creeden; whereas of the well—all of whom were elected on the Fusion ticket, having been nominated by the Republican party and accepted by the Citizens' Union and the Democratic party that defined the York Democracy candidates, and took office on Jan. 1, 1902. Also there were the following county officers: County Comptroller, L. E. Elliott; Register of Election, Henry B. Crucey, William T. Jerome; Sheriff, William J. O'Brien; and Register, John H. J. Ronner—all of whom were Fusion candidates and took office on Jan. 1, 1902.

Finances.—The gross funded debt of the city of New York, Jan. 1, 1902, was $416,292,223.61, an increase of $25,366,324.22 over that of 1901. Deducing from this amount $4,328,507.69 of unpaid principal taxes and $120,340,989.47, the amount of all sinking-funds, including both investments and cash, the net permanent funded debt is shown to be $385,585,356.46, an increase of $20,332,209.54 for the current year; in addition, the amount of revenue bonds issued in anticipation of the collection of taxes, bonds were issued to a little more than $42,500,000, and there were redeemed bonds of the sinking-funds, so that the net growth of the sinking-funds during the year, $7,000,000, has offset more than 25 per cent of the gross increase of the permanent funded debt. When it is remembered that the bonds issued in 1901 run forty or fifty years, and that in this sum are included $11,000,000 issued for the rapid-transit railroad, which will be redeemed out of the revenue bonds, it is evident that the growth of the sinking-fund, as a whole, is out of all proportion to the actual requirements of the debt. It is estimated that in fifty years, the time for which the longest city bonds are made to run, even at the present annual rate of increase, the increase of the sinking-funds would redeem $750,000,000 of debt, without regard to the capital of the sinking-funds, and that the present time the gross funded debt is only $416,000,000 and the net permanent funded debt is less than $280,000,000. The tax rate adopted by the Board of Aldermen, on Aug. 21, for 1902 was: Manhattan and Bronx, $2.27 for each $100 of assessed value. The rate for 1901 was $2.31. For Brooklyn the rate was $2.35; Queens, $2.31; and Richmond, $2.33. The amounts to be raised by tax were: City budget, exclusive of State taxes, $80,685,365.79; State taxes, $4,515,500.29. County budgets: New York, $2,286,706.75; Kings, $1,165,870.25; Richmond, $148,711; Queens, $777,609,021.66. To this must be added the estimated 2-per cent. deficiency for non-collected taxes of $1,730,018.42, making the net amount to be raised by tax in the 5 boroughs, $88,293,260.68.

Taxes and Assessment.—These are in charge of the department of which James L. Wells is president. The other members were Edward C. Sheehy, Arthur C. Salmon, Thomas W. Patterson, who died in 1902, and Ferdinand Levy (salaries $7,000 each except the president, who receives $8,000). They report the total valuation of real estate and personal property as assessed in 1901 to be $6,594,907,471, against which $3,657,757,043 for 1901, an increase of $237,150,428. This amount was distributed as follows: Assessed value of real estate: Manhattan, $1,373,362,107; Brooklyn, $623,780,955; Queens, $1,104,131,498; Richmond, $37,588,014; total, $3,412,612,606. Assessed value of real estate in the Bronx, $295,084,856; and Richmond, $365,812,341; Queens, $82,987,900; Richmond, $34,896,900; total, $3,475,755,802; grand total, $6,594,907,471. Real estate of the almanac value of $500,000,000 in except from taxation. Thus Mulberry Bend Park is es- timated to be worth $1,000,000, and Paradise Park near by is valued at only $50,000. The valuation of the land of the City of New York, and the City Hall and its site $3,000,000, of Trinity Church and its cemetery $6,000,000. The most valuable ex- empt site in the Bronx outside of its parks Woodlawm Cemetery, valued at $2,950,000. The Jerome Park reservoir is valued at $2,000,000, New York University at $400,000, the Washington Bridge at $350,000, and the Third Avenue Bridge at the same estimate. The present value of the House is valued at $2,800,000, Fulton Market at $500,000, the Criminal Courts Building at $1,500,000, the Henry Street school at $350,000, St. Mark's Church and cemetery on Second Avenue, $192,000, the Astor Library at $250,000, Cooper Union at $800,000, the Blind Asylum at 34th Street and Ninth Avenue at $825,000, the Ninth Regiment Armory at $500,000, the St. Charles Hotel at 35th Street and Seventh Avenue at $600,000, the Masonic Temple at $1,000,000, Bellevue Hospital at $1,000,000, Roosevelt Hospital at $825,000, Normal College at $800,000, Temple Touro Hospital at $1,200,000, St. Luke's Hospital at $1,500,000, and General Theological Seminary at $1,250,000. Board of Estimate and Apportionment. This body consists of the Mayor, the Comptroller, President of the Board of Aldermen, and presi- dents of the boroughs. This board allowed the following named amounts for 1902: The mayor- $25,200; Board of Aldermen and city clerk, $153,152; Department of Finance, $983,296.00; inter- est on the city debt, $13,276,709.68; redemption of the city debt, $10,417,350.17; State taxes, $550,175.28; rents, $332,080.57; Law Department, $420,560; President of Borough of Manhattan, $1,705,430.50; President of Borough of the Bronx, $1,026,000; President of Borough of Brooklyn, $1,184,203.25; President of Borough of Queens, $750,308.63; President of Borough of Richmond, $372,980; Department of Bridges, $423,083.38; Department of Water-Supply, Gas, and Electrici- City budget, exclusive of State taxes, $80,685,365.79; State taxes, $4,515,500.29. County budgets: New York, $2,286,706.75; Kings, $1,165,870.25; Richmond, $148,711; Queens, $777,609,021.66. From this should be deducted general fund balances, miscellaneous receipts, and other items estimated at $13,306,711.67; balance, $86,080,921.66. To this must be
NEW YORK CITY.

and Assessments, $349,900; Board of Assessors, $30,300; Armory Board, $107,807.50; Department of Education, $20,003.017.77; College of the City of New York, $398,802; Normal College of City of New York, $220,000; coroners, $151,300; Commissioners of Accounts, $151,000; Civil-Service Commission, $100,000; Board of Civil Record, $110,800; Board of Registration of Plumbers, $6,164; for library purposes, $431,543.80; City Court of New York, $130,050; municipal courts, city of New York, $392,250; Court of Special Sessions, First Division, $95,150; Court of Special Sessions, Second Division, $54,400; City Magistrates' courts, First Division, $166,450; City Magistrates' courts, Second Division, $172,800; for charitable institutions, $2,728,364.04; miscellaneous, $1,208,264.21; total, $933,066,966.96. Also the budget shows an allowance for the County of New York, $2,327,761.21; the County of Kings, $1,174,305.89; the County of Queens, $1,157,366.68; the County of Richmond, $631,360.36; making a grand total of $973,119,031.10, which is a net decrease of $1,500,000.78 over that of last year.

Parks.—The public parks are under the care of commissioners appointed for the various boroughs, with a salary of $5,000 each. The incumbents during the year were: Manhattan and Richmond, William B. Wilson; Brooklyn and Queens, George V. Brower; Bronx, A. Moebus. On July 1, Coney Island Park, which is at the terminus of the Ocean Parkway on Coney Island and comprises 70 acres, was formally opened to the public. Calvin Tompkins, chairman of the Municipal Art Society, chairman of the ceremonies, began the exercises by the following account of the park: "On May 18 the Board of Estimate and Apportionment granted the Park Department $50,000, with the request that it be devoted to improving this part of the city. On May 17 the serious work began, and in forty-three days this park has been made; the barren waste has become a beautiful garden; the sand hills have become a park, in which are found the plants of the tropics, flowers, trees, and shrubs. An irrigation plant has been put in, and nearly 15,000 cubic yards of soil, and about 1,200 trees, shrubs, and plants are growing here to-day." On July 11, Thomas Jefferson Park, between 111th and 114th Streets and First and Pleasant Avenues, was opened by Park Commissioner Willcox, who, in the name of the board, said it is to be extended to the Harlem river front, giving it about 15 acres and including in its boundaries the recreation pier at 112th Street. The park is in a barren condition at present. It is enclosed by a fence, and is divided into two sections, one section, 200 by 603 feet, being devoted to a playground for children, with tents and sets. The other section is for a ball-ground. It is in a section of Harlem that is known as "Little Italy." On July 17 the following resolution was adopted by the Sinking-Fund Commissioners and the Committee of Public Buildings, Markets, and Supplies of the Board of Aldermen: "The interests of the city require the removal from the City Hall Park of the Hall of Records, the engine-house and hook-and-ladder company, and the brownstone building occupied by the City Court as soon as suitable arrangements can be made for their accommodation, to be occupied by the City Hall Park, and to have these buildings be added to the City Hall Park." In December plans for the extension of Riverside Drive were published. These have for their chief purpose the carrying of the driveway to Boulevard Lafayette. The extended driveway is to begin at 136th Street, with an elevation of 80 feet above the river. Traversing the old Otten dorper property, it will cross 138th Street at a grade that will permit the street to pass below. The bridge over the street will be of masonry of artistic design. Its abutments will contain public-lodging houses. From the bridge the route swings gradually to the west, approaching closely to the tracks of the railway, but at such a height that the prospect of the river and the cliffs beyond is not shut out. Leaving the estate of Robert Hougé on the right, the roadway at 143rd Street broadens until its width is nearly 300 feet. Between 146th and 156th streets are to be 3 bridges of ornate design, to carry the driveway across intersecting streets that fall below the grade of the new thoroughfare. The most elaborate of these bridges will be at 156th Street. It will form a series of masonry arches and will be at an elevation of 60 feet. An inclined approach on the north side will connect the drive and the street. Passing through Audubon Park, the extension crosses over 158th Street to the Boulevard Lafayette. The approach widens, forming a plaza corresponding, to some extent, with the entrance to the Promenade. In the general plan of the extension provides for a carriage road 60 feet wide, a bridge-path 20 feet wide, two walks of 15 feet each, and grass-plots 5 feet wide between broad walks. Carrying out of the plans will provide a pleasure driveway from Central Park West, through Riverside and the Boulevard Lafayette to Dyckman Valley, and back to the Shore Road and St. Nicholas Avenue, in all a distance of 15 miles.

Museum of Art.—A new wing of the Metropolitan Museum of Art, on Fifth Avenue and 81st Street, was formally opened on Dec. 22. The new building, owing to its position on Fifth Avenue, forms a natural entrance to the museum, and the stately and impressive portal is regarded as worthy of the largest collection of works of art in the country. In the great entrance hall have been arranged a series of modern bronzes and marbles, as well as many of the sarcophagi from Cyprus. In the long narrow galleries are statues, reliefs, pottery, seals, and tomb inscriptions from Palmyra, Etruscan pottery, and bronzes, Greco-Roman masks, and Egyptian antiquities. The black wall of the Elizabeth Cole 13 acres, but it is to be extended to the Harlem river front, giving it about 15 acres and including in its boundaries the recreation pier at 112th Street. The park is in a barren condition at present. It is enclosed by a fence, and is divided into two sections, one section, 200 by 603 feet, being devoted to a playground for children, with tents and sets. The other section is for a ball-ground. It is in a section of Harlem that is known as "Little Italy." On July 17 the following resolution was adopted by the Sinking-Fund Commissioners and the Committee of Public Buildings, Markets, and Supplies of the Board of Aldermen: "The interests of the city require the removal from the City Hall Park of the Hall of Records, the engine-house and hook-and-ladder company, and the brownstone building occupied by the City Court as soon as suitable arrangements can be made for their accommodation, to be occupied by the City Hall Park, and to have these buildings be added to the City Hall Park." In December plans for the extension of Riverside Drive were published. These have for their chief purpose the carrying of the driveway to Boulevard Lafayette. The extended driveway is to begin at 136th Street, with an elevation of 80 feet above the river. Traversing the old Otten dorper property, it will cross 138th Street at a grade that will permit the street to pass below. The bridge over the street will be of masonry of artistic design. Its abutments will contain public-lodging houses. From the bridge the route swings gradually to the west, approaching closely to the tracks of the railway, but at such a height that the prospect of the river and the cliffs beyond is not shut out. Leaving the estate of Robert Hougé on the right, the roadway at 143rd Street broadens until its width is nearly 300 feet. Between 146th and 156th streets are to be 3 bridges of ornate design, to carry the driveway across intersecting streets that fall below the grade of the new thoroughfare. The most elaborate of these bridges will be at 156th Street. It will form a series of masonry arches and will be at an elevation of 60 feet. An inclined approach on the north side will connect the drive and the street. Passing through Audubon Park, the extension crosses over 158th Street to the Boulevard Lafayette. The approach widens, forming a plaza corresponding, to some extent, with the entrance to the Promenade. In the general plan of the extension provides for a carriage road 60 feet wide, a bridge-path 20 feet wide, two walks of 15 feet each, and grass-plots 5 feet wide between broad walks. Carrying out of the plans will provide a pleasure driveway from Central Park West, through Riverside and the Boulevard Lafayette to Dyckman Valley, and back to the Shore Road and St. Nicholas Avenue, in all a distance of 15 miles.

Aquarium.—On Oct. 1 this institution, which has been in the custody of the Park Department since its inception, was formally transferred to the custody of the New York Zoological Society, although the municipality will continue to provide the funds for its maintenance. Park Commissioner Willcox, in making the transfer, told how the building had been erected originally upon the rocks and connected with the shore by a bridge, and how the structure had been used successively as a battery, a place of amusement, and a landing-place for immigrants, until in 1866 it was opened to the occupants of these buildings elsewhere, and that the space occupied by these buildings be added to the City Hall Park. For December plans for the extension of Riverside Drive were published. These have for their
THE NEW WING OF THE METROPOLITAN MUSEUM OF ART.
have never been properly understood. What we
were assured was this, that city is the 67,300
educational system. It should be a place for
study and investigation. Fish-culture is fast
becoming a profession. We could establish a
fishery, and it would be interesting, and it could be arranged with glass
sides, so that the fish could be seen.

Health.—The collecting of vital statistics is
under the care of three commissioners, including
the health-officer of the port and the police com-
misssioner. The officials for 1902 were Ernest J.
Lederle, president (salary $7,500), Health-Officer
D. A. Greene, and police-commissioner John N.
Partridge. The secretary of the board
was Emmons Clark, who retired on Dec. 24,
1901, and was succeeded by Caspar Golderman,
and in the care of six. An increase of 1,346
Sixth Avenue
and 55th Street. President Lederle's report
shows that the numbers of deaths was 68,000,
compared with 70,000 in 1901, and the death-rate
for the city is the lowest ever reported in this city. The annual death-rate for
the entire city since consolidation has been:
1898, 20.22; 1899, 19.47; 1900, 20.57; 1901, 20.02;
and 1902, 19.74. In 1902 the rate for the old
city was 23.85. The death-rate for 1902 for the old
city of New York was 19.49. In 1902 there
were 4,007 more births than in 1901; and 36,200
marriages, an increase of 2,653. Regarding con-
miscusption, the report shows that there were 569
fewer deaths than in 1901. In the decrease in
the death-rate from this disease is due to scientific
measures and the control of the white plague
and its ultimate eradication is being brought
about by the enforcement of sanitary measures.
There was a slight increase in the deaths from
typhoid fever, but a decrease of 100 deaths from
smallpox is noted. In scarlet fever there was
a slight increase in the number of deaths, but in
diptheria there was a decrease of 33 per cent.
For the first time in twelve years there was a
decrease in the death-rate from cancer. There
were 80,000 persons vaccinated in the year.
The coroners' report shows that their office consid-
ered 6,346 deaths, distributed as follows: Sudden
death, 304; heart disease, 3,270; deaths by ac-
cidental violence, 1,065; deaths by suicide, 370;
deaths by direct murder, 92; other homicide
cases, 130; ante-mortem statements, 154. Of these
deaths 92 were due to violent death, an in-
duction from the previous year. In all there were
1902 2,820 deaths that, under the law, require
the personal investigation of the coroners. As
a result of such investigations, 543 persons were
held to await the action of the Grand Jury.
In connection with this, 1,238 inquests were held
and 644 autopsies were performed.

Hospitals.—In accordance with the provisions of the revised charter for the city, on Feb. 1 the
charge of the receiving and emergency hospitals
passed from the control of the Charities Depart-
ment to that of the medical director of the city.
Dr. John W. Brannon, president; James K. Paul-
ding, secretary; Myles Tierney, Samuel Sachs,
Marcus Stine, Theodore E. Tack, Howard Town-
send, and Commissioner of Charities Homer
Folks, ex officio. The board will hold meetings
in the Medical Board Room at Bellevue, and its
annual meetings and election of officers will be
held on the 5th day of March in each year. It 
will make an annual report to the mayor in December.
The emergency and receiving hospitals included
under the new management with Bellevue are Fordham, the Mount Sinai, Charity,
the Municipal, and the Municipal Hospital in 26th Street. The new hospital in Harlem,
ground for which has been secured.

Police.—This department is under the control
of a commissioner to 1902, who is also that of the city
commissioners (salary, $4,000). In 1902 the com-
missioner was John N. Partridge, who resigned
on Dec. 12, and was succeeded by Francis V.
McCullough, who resigned on Oct. 4, and was succeeded by
Second-Deputy F. H. E. Ebstein, who in turn was
succeeded by A. R. Piper. The headquarters are at
300 Mulberry Street. Col. Partridge's report to
Dec. 1 shows: Total force on Nov. 30, 7,721; retire-
ments, 115; dismissals, 76; complaints for viola-
tions of rules, 2,905; tried and reprimands given,
764; fines imposed, 1,489; tried and fines remitted, 4;
tried and judgment suspended (debt), 34; tried
and judgment reserved, 78; pending, 155; total
arrests—all offenses, 134,283; arrests for gambling
—all kinds, 1,434; trying gambling houses, 155; arrests for blackmail, 13; arrests for
bribery, 14; arrests for keeping disorderly houses,
506; arrests for murder, 20; arrests for violating
drug-law 1,397; arrests for violating pig-pen
law, 140; and arrests for violating pool law, 273.

The charges of oppression brought against
Chief Devery by former Officer O'Neill were dis-
missed in the Court of Special Sessions, and in
consequence the district attorney dropped the
matter further. The McAuliffe mystery was
one of the police events of the year. James
McAuliffe was the principal witness on whose testi-
mony Wardman Glennon was convicted. On Feb.
16 he stumbled and fell forward on his face in
the street before several witnesses, and died
shortly afterward in the hospital. Two days
later it was learned that he had been in the
hands of the West 47th Street police during the
night previous to his fall, and the hospital au-
torities declared that the fracture of the skull
from which he died was due to injuries
from his fall on the face, in consequence of which a
belief grew up that he had been badly used
in the station-house. As he was a strong witness
against 5 other indicted police officers, the local
newspapers took up the matter, and $4,000 was
offered as a reward for the apprehension of his
murderers. Public opinion compelled the Police
Department to send its chief district attorney to make an inquiry, and it
was officially conceded that when McAuliffe was
arrested Saturday night he was not suffering
from the injury which caused his death. The
injury received by him after his liberation
Sunday morning was not sufficient to cause his
death. But no evidence was obtainable to prove
beyond reasonable doubt who inflicted the injury.

Fire.—This department is under the care of a
commissioner, who receives a salary of $7,500.
The present incumbent is Thomas Sturgis, and
the headquarters are at 157 East 67th Street.
The most important action taken in the Fire
Department during the year was the order issued
on Aug. 18 relieving Chief Croker from command,
and assigning his duties to Deputy-Chief Purdy.
Charges were then preferred against Croker, and
he was tried on 7 counts, embracing 15 specifica-
tions, most of which pertained to his neglect
to safeguard the Park Avenue Hotel by enforcing
legal requirements, and to his discriminating in
promotions in favor of men of certain political
organizations. These charges were sustained, and
he was found guilty for the first time in sequence of which he
was dismissed from the service on Nov. 28.

Education.—At the beginning of the year the
Board of Education consisted of 39 commission-
ers, who were all appointed in May, and who
received no salary; and of that body Miles M.
O'Brien was president. By virtue of the laws
of 1901 this organization was abolished on Feb. 3, 1902, and a new board was appointed, of which Charles C. Burlingham was chosen president. The borough superintendent is William H. Maxwell; and John Jasper, formerly superintendent, but now a traveling agent, was retired with a pension, to take effect Sept. 1, 1902. The headquarters are at the corner of Park Avenue and 58th Street. According to a report issued on Sept. 8, in Manhattan was 203,500; Bronx, 36,110; Brooklyn, 123,131; Queens, 24,901; Richmond, 8,705; total, 396,425. Increase over first day, 1901; Manhattan, 17,616; Bronx, 4,379; Brooklyn, 12,748; Queens, 1,227; Richmond, 429; total, 38,496. Number over six years refused admission: Manhattan, 960; Bronx, 14; Brooklyn, 1,005; Queens, 4; Richmond, 29; total, 1,031. President Burlingham said: "While thousands of children are deprived of a full day’s schooling, there are thousands of unoccupied seats in the schools of this city. This is due in part to a shifting of population. It is impossible to move little children, but the older pupils of the schools can be transported and put in comfortable, well-lighted and well-aired schools in the outlying districts of the Bronx we make contracts for carrying the children in stages. I see no reason why we should not enter into contracts with the city railway companies to carry children from the congested to the less crowded parts of the city."

Carnegie Libraries.—The trustees of the New York Public Library and of the committees in Brooklyn and Queens of the Carnegie Library fund recommended in March to the Board of Estimate the following sites for Carnegie libraries:

**Manhattan and Bronx.** Nos. 29, 31, and 33 East Broadway; price asked $102,000. A plot on the southerly side of 82d Street, 100 feet east of West End Avenue; price asked $47,000. On the southerly side of 138th Street, 175 feet east of Lincoln Avenue; price asked $20,000. Tremont, near the Harlem Railroad station and the borough building. Nos. 224, 226, and 228 East 152d Street; price asked $30,000. The site was acquired by condemnation at an estimated cost of $17,000 or $18,000.

**Brooklyn.** Entire block bounded by Marcy Avenue, Rodney Street, and Division Avenue; estimated cost $60,000. Price asked $35,000. Northwest corner of Franklin Avenue, opposite Hancock Street, between Fulton Street and Jefferson Avenue; price asked $25,000. Vacant plot on northwest corner of Clinton and Union Streets; price asked $20,000. Plot on southeast corner of Fourth Avenue and Pacific Street; price asked $30,000. Plot on south corner of Bushwick and De Kalb Avenues; price asked $30,000. Northwest corner of Norman Avenue and Leonard Street; price asked $30,000. Southwest corner of Fourth Avenue and 51st Street; price asked $12,500.

**Queens.** Southeast corner of Broadway and Cook Avenue, in the old village of Elmhurst, now part of the Second Ward of Queens. Northwest corner of First Avenue and 15th Street, in the old village of College Point, now part of the Third Ward of Queens. Northeast corner of Broadway and McCormack Avenue, in the old village of Ozone Park, now part of the Fourth Ward of Queens.

A site on East 78th Street, between Second and Third Avenues, having been acquired by the Board of Estimate in 1901, and a building of 15,000 square feet erected, the first of the series of Carnegie libraries was dedicated on Dec. 13. The building is constructed in conformity with the general type adopted by the Advisory Board of Architects appointed by the Board of Trustees, under the provisions of the Carnegie gift. It is a three-story and basement structure, 40 by 90 feet, having on its roof a fourth story for the janitor’s use. It cost, with equipment, $70,000.

**Rapid Transit.**—The charge of the rapid-transit movement is in the hands of a commission, consisting of Alexander K. Woodbury Langdon, Morris K. Jesup, George L. Rives, who was succeeded on Jan. 1 by John Claffin, J. H. Starin, Charles S. Smith; the Mayor and the Comptroller, ex officio. In June the Rapid-Transit Commission submitted to the Mayor an extensive report, describing the work accomplished by the commission up to Dec. 31, 1901, and alerting the attention of the public to a number of propositions which, if adopted, would enable the rapid transit system to be extended in a manner of the largest public utility that might be desired in the world. The commission estimated that a line of rapid transit from the City Hall, through Canal Street, Bowling Green, to the Belt and York Railroad, would cost $50,000,000, and that extensions would be added from $10,000,000 to $20,000,000 each. The estimated cost of this line is $60,000,000. The commission further estimated that a tunnel under the East River would be necessary, and that the work would cost $5,000,000. The commission estimated that the extensions would be added from $10,000,000 to $20,000,000 each.

The commission recommended the construction of a line from the City Hall, through the Eastern Hills, to the Belt and York Railroad, with a tunnel under the East River, and ending at the Belt and York Railroad. The commission estimated that the work would cost $50,000,000, and that extensions would be added from $10,000,000 to $20,000,000 each. The estimated cost of this line is $60,000,000. The commission further estimated that a tunnel under the East River would be necessary, and that the work would cost $5,000,000. The commission estimated that the extensions would be added from $10,000,000 to $20,000,000 each.
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sion also adopted resolutions ordering plans for a second tunnel, and for extensions and terminals that would reach the Long Island Railroad and Brooklyn and establish the best possible interborough communication.

The New York Central Railroad announced plans for the improvement of the tunnel under Park Avenue, which contemplate a change in the location of Park Avenue, below 56th Street, or south of the present southern end of the tunnel, and it is the intention of the railroad to ask the city to exchange what is now Park Avenue for a similar amount of land which the company has purchased west of the present avenue. This strip of land is to be made into a new Park Avenue, and the present street surface is to be used to extend the tracks of the road in an approach to the loop that is to be built underneath the Grand Central Station. Part of the street so obtained is to be an open cut on a level with the rest of the tracks below the tunnel end. But as the side tracks to be used for the suburban electric system will have to reach a level of 40 feet below the street surface, the down grade leading into the subterranean loop will have to begin near 56th Street, in order to provide for the future electric trolley cars. The New York Central acquired the 75-foot strip of land west of Park Avenue, and between 49th and 56th Streets. These improvements contemplate the use of electric cars in the motive power, and it is estimated that three years will be required to complete the undertaking.

In April the New York and Jersey City Terminal Railroad Company was incorporated, with a capital of $100,000, to operate an underground tunnel railroad from a point on the bank of Hudson river at the boundary-line between New York and Jersey City to the intersection of Park Avenue and 57th Street, New York city. The length of the road is to be 6 miles. The road is to be constructed under Hudson river, and under and between the following streets of New York city: From the intersection of West Street and Battery Place, to Greenwich Street, to Trinity Place, to Church Street, to Delancey Street to the Broadway center line, to Park Row, to Center Street, to New Elm Street, to Great Jones Street, to Lafayette Place, to Astor Place, to Eighth Street, to Ninth Street, to Fourth Avenue, to 424 Street, to Grand Central Station, to Park Avenue, to 57th Street, con- necting there with the Harlem Railroad. It was specified that a branch shall be constructed forming a connection with the main line at 34th Street and Fourth Avenue and running under 34th Street to the East river. Subsequently it was announced that this company had bought the rights and property of the Hudson River Tunnel Railway Company, which began the construction of a tunnel under the river, known as the Morton Street Tunnel, and of which more than 4,000 feet have been excavated. The new corporation sought permission from the Rapid-Transit Commission to tunnel from the New York end of the old tunnel up West Street, to Morton, thence to Greenwich Avenue, and up to a terminal in the block bounded by West 10th, Christopher, Greenwich, and Hudson Streets.

In September the Hudson and Manhattan Railroad Company, with an authorized capital of $100,000, was incorporated. This corporation contemplates a railroad to begin at or near Pennsylvania Ferry in Jersey City, running thence south- erly to the intersection of Exchange Place and Hudson Street, and then under the bed of Hudson river to a convenient point on the boundary-line between New Jersey and New York. The tunnel will run from the intersection of Exchange Place and Park Avenue, and under Hudson Street, to the southerly terminus of the railroad, and thence southerly by the most direct and feasible route to the station of the Central Railroad of New Jersey.

The most important tunnel project brought to public attention during the year was begun with the incorporation, on April 21, of the Pennsylvania, New York and Long Island Railroad Company, with a capital of $20,000,000, to construct and operate an underground railroad in New York and Queens Counties, to be operated by electricity or other suitable power. This undertaking has for its purpose the carrying of the line of the Pennsylvania Railroad Company across Manhattan Island and establishing a station on the island, at an estimated cost of $40,000,000, of which about $25,000,000 will be paid for labor. The new line will begin at Harrison, opposite Newark, and run along the south side of the Pennsylvania main line to a point at which it has such an elevation that it can cross to the north side overhead. Then it trends northward across the meadows to the west side of the ridge just north of the line. At the point where it enters the mountain it crosses 7 railroads, besides the main line of the Pennsylvania, and an important highway on which is a double-track trolley road, and it also crosses Hackensack river. All the crossings are over grade. That necessitates a continuous embankment, or viaduct, from Harrison to the tunnel portal on the west side, and another embankment as far as the line enters a rock tunnel, and it emerges in Long Island City, the length of tunnel being a little less than 6 miles. The total improvement from Harrison to the junction with the Long Island Railroad is 124 miles. Not a foot is on the natural surface; all is in tunnel or cutting, or on embankment or viaduct. Across the North river will be 2 tunnels, and across the East river 4, and the tunnels are to meet at a central station to be established on Manhattan Island, between Seventh and Ninth Avenues and 31st and 33rd Streets. On Manhattan Island the rails will never be nearer the surface than 40 feet, and everywhere they will be below mean tide-level. At the highest point of the tunnel the rails will be about 10 feet below the level of the station platform, and the platform will also be below tide-level. Under the Bergen ridge the grade of the tunnel will be 225 feet below the highest point of the hill. Under the North river it will be 35 feet below the natural bottom of the river and 80 feet below mean low water. Under the East river the depths are about the same. The representatives of the Pennsylvania Company came to a speedy agreement with the Rapid-Transit Commissioners, but that contract was rejected by the Board of Aldermen, on the ground that the city's rights were not properly safeguarded. Subsequently a conference was held by Mayor Low and others, at which the proposed franchise was discussed at length. The Pennsylvania Railroad Company agreed to accept some of the modifications that were suggested, and it was proposed that the Mayor send a message to the Board of Aldermen and a similar message to the Rapid-Transit Commission, asking each a conference committee for the purpose of developing a possible franchise that would be satisfactory. Conferences and public hearings followed, and after several months' discussion, amended and revised, became acceptable to the representatives of the railroad, the
Board of Aldermen, and the Rapid-Transit Commission, and finally, on Dec. 16, after a recommendation by the Railroad Committee of the Board of Aldermen, the franchise was passed by the larger body and approved by the Mayor. The two points on which the railroad refused to yield were concerning questions of regulating working hours and maintaining a prevailing-rate-of-wages scale. Labor delegates attended every hearing to oppose the granting of the franchise without these stipulations; but the company declared not only its unwillingness, but its inability, to give up on the two disputed points.

Bridges.—On March 18 the Board of Aldermen decided to name the present New York and Brooklyn Bridge the Brooklyn Bridge, the new East River Bridge the Williamsburg Bridge, Bridge No. 3 the Manhattan Bridge, and Bridge No. 4 the Blackwell’s Island Bridge. In March the Board of Estimate and Apportionment approved plans for purchase of property 200 feet wide from the terminus of the Williamsburg Bridge on Delancey Street, through the city and across the Bowery to Elm Street, near which point is to be a station of the Rapid-Transit road. At this point $2,000,000 will be spent. For the Blackwell’s Island Bridge and $2,000,000 for Manhattan Bridge were adopted. On Nov. 9 a spectacular and unusual fire destroyed the subsidiary works of the tower, the fire starting on the New York side of the Williamsburg Bridge over East River.

Street-Railways.—According to the report issued in December by the State Railroad Commission, the freight and passenger traffic of the railroads of the city of New York carried 924,754,211 passengers paying fares in the year ending June 30, 1902. Counting the transfers, the total number of passengers was 1,160,030,344. The original passengers riding on the cars in Manhattan were distributed as follow: On the street-surface roads, 410,287,089; on the elevated, 215,250,345. As there are no transfers on the elevated, the total passengers transferred from the street-surface roads were 176,729,404. These figures, compared with those of the preceding year, show that the passengers carried decreased 7,805,440 on the street-surface, and increased 25,213,604 on the elevated. The decrease on the street-surface roads of Manhattan and the Bronx was not in original passengers, but in transfers. There are 15 railroad companies operating in the territory of Manhattan and the Bronx, which is an increase of 2. The length of tracks operated is 216,491 miles, against 218,012 miles last year. The surface and elevated roads of Brooklyn carried in the year 357,875,435 passengers, including transfers. The original passengers numbered 299,206,777. The increase was 10,719,524. Eight companies operate the railroads of Brooklyn, which is an increase from last year. The track mileage this year is 330,317; last year, 328,394.

Monuments.—A heroic statue of Gen. Edward B. Fowler, who was colonel of the Fourteenth New York Regiment during the civil war, was unveiled in Fort Greene Park, Brooklyn. His old comrades and various military associations were present at the ceremonies, which included an oration by Gen. Theodore B. Gates, the acceptance of the statue for the city of Brooklyn, and its acceptance for the city by Mayor Low.

On April 30 the Mary Washington Colonial Chapter of the Daughters of the American Revolution unveiled a memorial tablet to the memory of Margaret Cobin, heroine of the battle of Fort Washington, in Hollywood Church, 181st Street and Broadway, which stands within the line of the old fortifications.

On May 11 the Huguenot Society dedicated a tablet commemorative of the establishment of the first Huguenot church in America. It was placed on the west side of the Produce Exchange.

On May 30, Memorial Day, the Soldiers’ and Sailors’ Memorial Monument was dedicated. This beautiful memorial, which cost $300,000, is at Riverside Drive and 98th Street. The exercises included the reviewing of a procession of veterans and the National Guard, of which Robert S. Heifterty was Grand Marshal, by Gen. Nelson A. Miles, with Maj. Gen. Edward B. Baker, and Gen. O. O. Howard, followed by an address by Joseph A. Goulden, chairman of the Memorial Committee of the Grand Army of the Republic, who concluded his speech by introducing Acting Governor of New York, who then spoke. The keys of the monument were then handed to
Mayor Low, who after a brief address transferred the Wills Park from the Park Department, who accepted the trust in an appropriate address. The monument was then unveiled, and the exercises closed with an address by Gen. Howard. The memorial bears the inscription: "To the Memory of the Brave Soldiers and Sailors Who Saved the Union," and on the tablet is inscribed: "Soldiers' and Sailors' Memorial Monument of the City of New York. Commissioners: Robert A. Van Wyck, Mayor; George C. Clausen, President Park Board; John W. Goff, Recorder; Bird S. Coler, Comptroller; Joseph A. Goulden, Chairman Memorial Committee, Grand Army of the Republic. Architects, Charles W. Stoughton, Arthur A. Stoughton, Paul E. Dubry. Builders, Cullen & Dwyer."

On July 4 a bronze fountain that was presented to the Society for the Prevention of Cruelty to Animals by John M. Gitterman was unveiled at the intersection of Liberty Street and Montague Avenue.

On Nov. 16 a statue of Gen. Josiah Porter, designed by Clark G. Noble, was unveiled on the parade ground in Van Cortlandt Park. The veil was drawn by Mrs. Mary Porter Robinson, daughter of Gen. Porter. In the autumn a committee from the New York Historical Society and the American Historical and Scenic Society, to cooperate with the Municipal Art Commission, was appointed to examine the memorial tablets in the borough. It is said that there are many errors on these tablets, and it will be the work of the committee to correct these, as well as to pass upon the design, inscription, and location of such other memorial tablets as the patriotic societies may seek to place.

Historical.—Under the auspices of the Scenic and Historic Preservation Society plans have been made for the preservation of Fraunces's Tavern. The building is to be restored, so far as the records make possible, to its condition at the time when Washington took leave of his generals in the old Long Room, and a park is to be established on the surrounding half-block of property. An association, to carry out this plan, was formed last week, and a new building is to be erected on the west side of the block. The association has already purchased a small building on the east side of the block, and plans are being made to erect a new building on the west side. The association is to be governed by a board of trustees, to be elected by the stockholders, who are to be elected by the stockholders, who are to be elected by the stockholders, who are to be elected by the stockholders, who are to be elected by the stockholders.

Birth.—On Jan. 3 Prof. Nicholas Murray Butler was chosen President of Columbia University.

On Jan. 8 a serious collision occurred in the tunnel of the New York Central Railway in New York city, killing 17 persons and injuring a large number.

On Jan. 27 an explosion, caused by dynamite, occurred in the Rapid Transit tunnel, at Park Avenue and 41st Street, killing and injuring many persons and destroying considerable property.
On Feb. 22 the Park Avenue Hotel was partly destroyed by fire, and 17 persons were killed by the disaster.

On July 1 John M. Burke transferred the sum of $4,000,000 to a board of trustees, to be used for the betterment of men and women who are unable to support themselves by reason of sickness or misfortune.

On July 30 a procession of 50,000 orthodox Jews followed the remains of Rabbi Jacob Joseph from the synagogue to the grave, granting the Promise of David, and while in the vicinity of Grand and Sheriff Streets were attacked by the employees of a factory, and in consequence a riot occurred that culminated in bloodshed.

Aug. 3 a remarkable storm passed over the city, producing at noon a darkness of such intensity that artificial illumination became necessary for the ordinary transaction of business.

On Oct. 6 the corner-stone of a new custom-house, to occupy the space bounded by Whitehall, St. John's, Broad and Bowling Green, was laid by Secretary of the Treasury Shaw.

On Nov. 4 an explosion of fireworks occurred in the Institute of the death of 15 persons and the injury of 100 others.

On Nov. 11 the New York Chamber of Commerce formally dedicated its new building at 66 Liberty Street.

On Dec. 29 the doors of the old Hall of Records were closed, and as soon as the new building can be completed this historic edifice, erected in the era of King George III as a prison, will be demolished.

On Dec. 30 the freedom of the city was conferred on Dr. Adolf Lorenz, the great Austrian surgeon, who in many instances remedied congenital dislocation of the hip.

NEW ZEALAND, an island colony of Great Britain in the Pacific Ocean. Under the Constitution of 1875 the Government has power to convene, prorogue, and dissolve Parliament only by the advice of responsible ministers, but he can veto bills or withhold them for the consideration of the Imperial Government and can submit drafts of bills for the consideration of either house, and all proposals for the appropriation of money must come from him before Parliament can legally provide for public expenditure. The Parliament for General purposes consists of a Legislative Council of 45 members, appointed since 1891 for seven years, instead of for life as formerly, and a House of Representatives containing formerly 74 members, increased to 80 in 1902, elected by all adult citizens of both sexes, qualified by a residence of one year in the colony in three months in the district. The Governor at the beginning of 1902 was the Earl of Ranfurly, appointed in 1897 and continued in office till August, 1904, a year's extension of his term. The ministry at the beginning of 1902 was composed as follows: Prime Minister, Colonial Treasurer, Minister of Labor, and Minister of Defense, R. J. Seddon; Colonial Secretary, Postmaster-General, and Electric Telegraph Commissioner; Minister of Railways, Minister of Industries and Commerce, and Minister of Public Health, Sir Joseph G. Ward; Minister of Lands and Minister of Agriculture, T. Y. Duncan; Commissioner of Native Affairs and Native Minister, J. Carroll; Minister of Immigration and Minister of Education, W. C. Walker; Minister of Public Works and Minister of Marine, W. Ball-Jones; Minister of Justice and Minister of Mines, W. McGowan; Commissioner of Trade and Customs, C. H. Mills.

Area and Population.—The area of the North island is estimated at 44,488 square miles; of the Middle island, 68,225 square miles, total, 104,471 square miles, including adjacent small islands. Cook and other islands of the Pacific were annexed to New Zealand by the proclamation of June 10, 1901. The total white population of the three islands constituting the colony by the census of March 31, 1901, was 77,719, consisting of 405,992 males and 366,727 females. The population of the North island was 390,571; of the Middle island, 381,861; of Stewart's island, 272; of Chatham Islands, 207; of Kermadec islands, 8. Including 43,101 Maoris, the total population was 815,820. There were 2,857 Chinese, of whom 32 were females. Of the Maoris, including 3,133 half-castes, 23,100 were males and 20,001 females. The population of the seaport of Auckland in 1901 was 34,213 within the town limits, 67,226 including suburbs; of Wellington, the capital, 41,480; of Christchurch, 17,538, or 57,041 with suburbs; of Dunedin, 24,879, or 52,380 with suburbs; of Sydney, 11,404. The number of marriages in 1900 was 5,842; of births, 19,548; of deaths, 7,200; excess of births, 12,346; immigration, 18,074; emigration, 16,243. The increase of population by immigration is 36,000 in ten years.

Finances.—The revenue from the year ending March 31, 1901, was £2,180,862; from stamps, including postal and telegraph receipts, £303,835; from railways, £1,210,841; from the land tax, £294,584; from the cigarette duty, £173,806; total revenue, £2,582,502, not including £89,368 from sales and £180,834 from rent of lands. The acreage alienated up to March 31, 1900, was 23,302,972 acres; total area of the colony, 68,861,440 acres. The public debt charges for 1901 were £1,745,616; expenditure for railways, £1,144,832; for education, £461,067; for public works and telegraphs, £416,364; for custodians and defence, £347,448; total, £2,479,703; exclusive of expenditure from the Public Works fund, which from 1870 to 1901 amounted to £3,257,- 647. The regular land tax, from which improvements are exempt, was 1d. in the pound in the year 1901, yielding £229,000 from land and mortgages, and the graduated supplementary tax, rising from 4d. in the pound on estates valued at £2,000 to £10,000 to 9d., yielded £72,000. The income tax is 2½ per cent. on incomes up to £1,000, and 1s. on all above that amount, with exemption of £300. Old-age pensions cost the Government £307,000 in 1902. The public debt on March 31, 1901, amounted to £48,557,751, with an annual charge of £1,671,552 for interest and £46,364 for sinking-fund. The local revenues in 1900 amounted to £714,151 from rates and £1,220,060 from other sources; local expenditure, £1,900,073; debts, £7,037,350.

The Government revenue for the year ending March 31, 1902, was £5,152,245, including £1,033,404 in the sinking-fund, which estimated revenue at £20,083,300 and expenditure at £23,987,- 063. The Government was able to borrow at par in the colony and Australia on 4 per cent. bonds running four years when the London money market would not make favorable terms. Defense.—The establishment of a Territorial Artillery and of 86 torpedoes to man 4 torpedoboats and 4 launches. The volunteer force num-

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Production and Commerce.—Of the total area of New Zealand the area tilled in 1900 was 11,081,912 acres of artificial meadow, 1,564,123 acres under farm crops, 49,394 acres of plantations, 25,777 acres of orchard, and 17,411 acres of garden. The area of Crown lands leased for pasture in 1901 was 20,008,496 acres. The live stock of the colony consisted of 298,243 horses, 1,256,680 cattle, 19,355,195 sheep, and 250,975 hogs. The mineral production in 1900 was 236,467 ounces of silver of the value of £28,878,575; 616 ounces of gold of the value of £3,428,068; 10,159 tons of kauri-gum of the value of £625,293; 1,093,990 tons of coal of the value of £546,965, and small quantities of manganese and antimony. In 1900 the value of the exports was £44,530 ounces, valued at £1,758,578. The value of the imports in 1900 was £10,646,090, consisting of £5,727,928 of merchandise free of duty, £4,676,407 of duties varying from 3 to 40 per cent ad valorem, and £4,375,707 of specie. The value of exports was £13,246,161, of which £13,055,249 represent products of the colony, including £2,141,363 of exports, £1,354,136 of reexports. The imports of textiles and clothing were £2,420,241 in 1900; iron and steel machines and machinery, £2,133,213; sugar, £453,523; tea, £1,095,934; spirits, wine, and beer, £287,676; tobacco and cigars, £198,681; coal, £120,406; sacks and bags, £141,810; fruit, £226,128; oils, £206,770; fancy goods, £128,339; paper and books, £407,410; other merchandise, £3,285,010. The exports of wool were £4,749,196 in value and 140,706,486 pounds in quantity; grain, flour, and pulse, £1,049,389; frozen meat £2,123,581 in value and £1,944,831 in quantity; kauri-gum, £223,293 in value and 10,159 tons in quantity; tallow, £388,473; hides, skins, and leather, £475,868; live animals, £369,076; dairy-produce, £369,731, representing 172,485 pounds of butter and 102,549 hundredweight of cheese; hams and bacon, £16,777; preserved meat, £84,284; grass seed, £39,003; phormium, £332,182; other colonial produce, £2,264. Imports from the United States increased from about £200,000 in 1896 to more than £1,000,000 in 1901.

Factories in New Zealand have increased 80 per cent. in five years, the number of workers being 62 per cent. The consolidation and arbitration act has been seven years in operation. Although a section of the employers has labored for its repeal and individual trade unions complained of some awards of the arbitration courts, the workers in general are content with the act save in minor particulars that they wish amended, and the bulk of the employers do not complain. The act has been copied by New South Wales and South Australia. An amendment made in 1901 enables parties to present their differences at once to the court of arbitration of a jurist and representatives of laborers and employers; still the consolidation boards settle many troubles, and twice as many agreements are voluntarily reached and not referred to the court. A registration between unions and employers as there are cases settled by award of the arbitration court. Since the passing of the act the value of improvements has been increased £7,500,000.

Navigation.—During 1900 there were entered at New Zealand ports 616 vessels, of which 544, of 742,551 tons, carried cargoes, and cleared 616, of 392,575 tons, of which 544, and 742,554 tons, carried cargoes. The number of colonial vessels entered was 393, of 392,519 tons, and cleared 397, of 398,458 tons; British vessels entered numbered 156, of 392,594 tons, and cleared 149, of 368,241 tons; foreign vessels entered numbered 67, of 69,719 tons, and cleared 67, of 68,568 tons. The number of vessels registered in the colony was 221, of 36,753 tons, of which 268 were sailing vessels, of 42,128 tons, and 222 were steamers, of 66,625 tons.

Railroads, Posts, and Telegraphs.—There were 2,300 miles of Government railroads in operation on April 1, 1901, of which 1,883 miles were in the Middle island and 829 miles in the North island. The revenue of Government railroads for the year was £1,727,236; expenditure, £1,727,246, being 55.30 per cent. of receipts. There were 6,243,593 passengers and 3,461,331 tons of freight transported. The capital cost was £18,230,657. There is a private company owned by the government on the west coast of the North island, which the Government was authorized by Parliament to acquire at a certain price. The English shareholders refused to sell at this figure and the Government retaliated by cutting off connections. The post-office during 1900 forwarded 38,682,296 letters, 1,236,183 letter cards, 1,908,515 postal cards, 17,748,686 parcels and packages and 4,046,715 newspapers. There were 300,854 money-orders issued and 364,018 paid. The receipts for the year ending March 31, 1901, from posts and telegraphs were £203,836 and expenses £218,273.

The Government telegraph-lines on April 1, 1901, had a length of 7,249 miles, with 20,062 miles of wire. The number of telegrams during the year was 3,986,128, of which 3,594,444 were paid despatches. The revenue from telegraphs and telephones was £186,978.

Politics and Legislation.—A system of Maori councils for local self-government, authorized in 1901, has been organized. The Maori nation has been induced to hand over to the Government over 1,000,000 acres of its best lands for settlement by white purchasers. The Maori king, Mahuta, opposed this arrangement at first. The business presented by the Government in the session of the Assembly that began on July 1 included bills by which one house had already passed; a bill providing State fire-insurance; and a measure making provision for aged and retired railroad employees. The Government purchased coal-mines. A measure was considered for preventing combinations for raising improperly the prices of food. New estates were acquired under the land acts for division and resale to actual settlers. The general elections, held in November, resulted in the fifth successive victory of the Progressive party of Mr. Seddon. The Government party elected 45 members; the Opposition, 23; Independents, 4; and Prohibitionists, 4. In local-option districts the voting was in several instances in favor of no licenses or the reduction of licenses. The Government majority was twice as great as in the general election of 1890 that put the Progressives in control.

NICARAGUA, a republic of Central America. The Congress is a single chamber of 40 members, elected for two years by universal adult male suffrage. The President is elected by direct popular suffrage for four years. Gen. José Santos
Zelaya was elected President of the republic for the term ending Jan. 30, 1902. The Cabinet at the beginning of 1902 was composed of the following members: Minister of the Interior, Justice, Police, and Ecclesiastical Affairs, Gen. Fernando Alvarado; Minister of War and Marine, A. Saenz; Minister of Foreign Affairs and Public Instruction, Dr. Fernando Sanchez; Minister of Finance and Public Credit, Col. Felix Pedro Zelaya; Minister of Public Works, Dr. Leopoldo Ramirez Mairena.

Area and Population.—The area of Nicaragua is estimated at 49,200 square miles; the population at 450,000 to 500,000, mostly Indians with an infusion of negro blood. The white population of Spanish stock is exceedingly small, but Americans and other whites have settled in the country in recent years to the number of about 1,200. Managua, the capital, has 30,000 inhabitants; Leon, 45,000; Granada, 25,000; Masaya, 20,000; Chinamendegua, 20,000.

Finances.—The revenue for the calendar year 1899 was $4,475,827 in silver, and expenditure $4,557,794. For 1900 the estimated revenue was $6,408,000, and expenditure $6,414,431; revenue for 1901 at $5,578,193, and expenditure at $5,756,292. In 1899 customs yielded $2,187,700; liquor and tobacco duties, $1,118,120; the tax on slaughtering cattle, $214,061; railroads, steamboats, and telegraphs, $219,649. The expenditures were $1,573,885 for the army and navy, $941,014 for public works, $550,237 for finance, $398,382 for education, $350,573 for police, $315; 900 for pensions, and $191,649 for justice. The foreign debt, consisting of a railroad loan raised in England at 6 per cent. in 1886, readjusted at 4 per cent. in 1896, amounted on July 1, 1901, to $273,900. The internal debt on Jan. 1, 1900, amounted to $36,635.

The Army and Navy.—All young men between the ages of eighteen and thirty-five can be called into military service, and for ten years longer they are entitled to reserve, and then to the National Guard until they are sixty-five years old. The number in active service must not exceed 2,000; in 1900 it was about 2,000. The war stations are at La Cruz, 25,000.

The naval force consists of 2 steamers on the Atlantic coast, 2 on the Pacific, and 4 on the Lake of Managua.

Agriculture and Production.—Coffee, bananas, cacao, and sugar cultivation are being extended by foreign settlers. The people have about 400,000 cattle and 200,000 horses and mules. The export of coffee in 1900 was about 200,000 bags of sugar, 12,238 hundredweight. Rubber must not be exported except from the state of Zelaya, the old Mosquito Territory. There are 109 gold and silver and silver and copper mines belonging to American and English companies. The shipments in 1900 were 18,500 ounces of gold, besides 14,000 pounds of ore. The total value of imports in 1900 was estimated at $8,441,897, and that of exports at $9,406,436 in silver. The value of cotton goods imported was $3,852,000; of woolens, $234,500; of provisions, $183,120; of flour, $420,000; of wines and spirits, $384,000; of hardware, $219,600; of drugs, $206,400; of sacks, $123,000. Among the exports the value of coffee was $4,800,000; of rubber, $828,000; of mahogany and cedar, $613,200; of dynamite, $215,280; of cattle, $540,000; of hides, $378,000; of gold bars, $432,000; of gold dust, $312,000; of gold ore, $698,280. Of the imports Great Britain supplied about 40 per cent.; France 10 per cent.; and Costa Rica 10 per cent.; of the exports 50 per cent. went to Great Britain, 20 per cent. to the United States, 20 per cent. to France, and 8 per cent. to other countries.

Navigation.—The number of vessels entered in 1900 at the port of Corinto, which has two-thirds of the commerce of the country, was 290 in the foreign trade, of 328,822 tons.

Railroads and Telegraphs.—There are 140 miles of railroads, which connect with steamers on Lake Managua and Lake Nicaragua. A line from Managua to Leon and Corinto, 38 miles long, was contracted for in October, 1900, to be completed in 1902, which will do away with steamboat transport between those points. Except 7 miles, all the railroads are Government property.

Political Affairs.—The Presidents of Costa Rica, Honduras, Nicaragua, and El Salvador, at Corinto in January, 1902, to discuss matters of common interest to Central American states. The outcome of the conference was a treaty laying down a series of agreements in connection with the law and an undertaking to establish a tribunal of arbitration which in the future will decide all differences that arise between any of the four countries. President Zelaya was selected to take part in the conference. Pleading inability to attend, he sent his Minister of War to represent him, but without full powers. By a vote of the Congress of Costa Rica, was commissioned to seek the adhesion of President Estrada Cabrera, of Guatemala, to the treaty, and he departed on Jan. 28 for this purpose. Gen. Sanabria, President of Nicaragua for a third term and on Feb. 2 was inaugurated at Managua. He has continued to hold the office since he was first proclaimed President in 1893 as the result of a revolution in which President Roberto Sacasa was overthrown. Other politicians were now ambitious for the presidency, the Opposition chafed at exclusion from office for so long a period, and many acts of President Zelaya's Government had given rise to popular discontent. The aid extended to the Colombian revolutionists from Nicaragua provoked a revolutionary movement against Zelaya's Government. On March 17, 1902, Government spies heard of correspondence from exiles in Panama which gave warning of an intended rising. The Government took the arms to arrest immediately prominent members of the hostile party living in Granada, which is the Conservative stronghold. Those who did not escape arrest were taken to Managua and imprisoned. On July 7 a party of Nicaraguan revolutionists were landed near Bluefields from the Colombian gunboat Pinzon. The Government forces, acting promptly, defeated the revolutionists, and most of these surrendered. Their captors intended to shoot their prisoners, but deserted when the commander of the British gunboat Psyche landed and insisted that no one should be executed without a fair trial. The President sought a defensive alliance with Salvador against Colombia, fearing that the latter would retaliate with warlike measures for active assistance rendered by the Nicaraguan Government to the revolutionary Liberals of Colombia. In consequence of the impracticable conditions demanded by the Colombian Government and its dilatory proceedings in regard to the terms of a treaty to grant a right of way to the United States for the construction of the Panama Canal, Secretary Hay began informal negotiations with the British Government and Costa Rican governments with the object of concluding a tentative treaty for the construction
of a canal by the Nicaragua route in the event of failure to reach an agreement with Colombia. Those governments were anxious to have the Nicaragua Canal completed, and they offered terms more favorable to the United States than the Colombian Government considered itself competent to concede. The Nicaraguan Government was financially embarrassed before the military measures taken against revolution and a further decline in the value of the paper currency added to its difficulties. In November all customs duties were raised 100 per cent. on account of the depreciation of paper money.

NORTH CAROLINA. (See under United States.)

NORTH DAKOTA. (See under United States.)

NORTHWEST TERRITORIES OF CANADA. The area of the Northern Territories, including Keewatin, Assiniboia, Saskatchewan, Alberta, Athabaska, Mackenzie, and Ungava, is 2,330,840 square miles; population in 1901, 200,000; capital, Regina. The area of the district of Franklin, reaching up to the far north, is not accurately known.

Government and Politics.—The Territorial Government in 1902 was unchanged. It comprised W. E. G. Haultain, K. C., as Premier, Attorney-General, and Colonial and Internal Affairs; A. L. Sifton, Treasurer and Commissioner of Public Works; G. H. V. Bulyea, Commissioner of Agriculture and Territorial Secretary. William Eakin was Speaker of the Assembly during its last session before the general elections. D. H. McDonald acted as leader of the Opposition. The session of the Assembly was opened by Lieut.-Gov. A. E. Forget on March 20, with a speech from the throne, of which the following are the significant passages:

"The unprecedented crop of last season brought the transportation question into prominence, and demonstrated the necessity for improved and enlarged accommodation for shipping and carrying grain to eastern points after the close of lake navigation. Owing to the representation made to the Canadian Pacific authorities by my Government, through the Department of Agriculture, the evils of the grain blockade existing a few weeks ago have been considerably mitigated. As a result, the farmers have in receipt of an increase in prices amounting to at least 10 per cent. over prices formerly obtaining."

"Owing to the great increase of population in the Territories, provision will have to be made for increased representation in the Legislature, and a measure dealing with that subject will be submitted to you."

The Assembly was prorogued on April 19, after discussing at great length the question of obtaining full provincial rights from the Dominion Government and passing measures of local importance. One of the chief measures of the session was that presented by Mr. Bulyea, on April 18, in the form of a request to the Dominion Government asking amendment of the elevator act, so that when there was an undue difference between the rates of freight and of grain, the commissioner may order that all cars placed at such station shall be located at any elevator of which the manager is prepared to pay the proper price. He believed there was a combine in this connection, and that large sums were being made out of the farmers by elevator companies unduly depressing prices.

On April 18, Mr. Bennett moved a vote of censure against the Government for compromising lawsuits entered against them by the Hudson Bay Company regarding certain local-improve-

ment taxes. Mr. Haultain declared that the settlement was much better than litigation extending up to the judicial conference in London, and was supported by 26 to 6 votes. On the same day Mr. R. S. Lake moved the following resolution, which was unanimously passed:

"That in the opinion of this House, as the Canadian Pacific Railroad has signally failed to meet the pressing necessities of the Northwest in the matter of the transportation of grain, and as the Dominion Government has postponed conferring upon the Northwest powers that would enable the Territories to take immediate steps looking to the procuring of increased transportation facilities for the Territories, whether by additional trunk lines or otherwise."

On April 2, a convention of the Eastern Assiniboia Liberals was held in Brandon, and a series of resolutions was passed urging action in connection with the elevator companies as to wheat storage; the grant of increased powers of self-governance and control to the Territorial Legislature; the reduction of Dominion fees under the land titles act; certain amendments to the homestead regulations in the Dominion lands act; more attention to the transport question by the Dominion Government to the transportation question, especially in districts where farmers have to haul their produce 15 to 35 miles. A vigorous protest was also lodged against any increase in the Federal tariff, and a demand was made for reduced duties on agricultural implements and other manufactured products. At a gathering of Liberals in Calgary on Sept. 3 resolutions were passed embodying the following platform for the Territories:

1. Demand for better post-office service. 2. No return to a protective tariff, and no increase in customs. 3. Increased expenditure by the Dominion on roads and bridges. 4. Increased railway transportation facilities. 5. Three members for Alberta. 6. Thanks to the Laurier Government for the ability, integrity, and efficiency of its administration, and particularly that of the Department of the Interior.

Finances.—The Treasurer's budget speech was delivered on April 15. He said there would be no decrease of $3,000 in the civil-service vote; there was a slight increase in legislation of $1,000, owing to placing the library on a different footing. In the item for the accommodation of the Cabinet there would be an increase, but it would not add to the public burdens, as it was brought about by paying clerks of courts salaries instead of fees. The vote for education was about the same as last year. There was an increase in the Agricultural Department, where the work was very much greater than in previous years. The grants to hospitals were an automatic increase in consequence of the ordinance of the past year. The last item, miscellaneous, showed a great increase, from $5,000 to $40,000. The reason of this was that there would be an election, and $500,000 would be required for that. There was the old completed trip of the Premier to the coronation ceremony in England. The amount asked for this in the estimates was $5,000. The speaker then referred to the inadequate means assigned by the Dominion Government. In 1898 the amount was $292,000, and since then it had been increased by only $75,000. That was a very small amount, compared with the growth of the country. In the old province the increase of population had been gradual, but in the Northwest a new nation had sprung into existence at once.
NORTHWEST TERRITORIES OF CANADA.

Provincial Autonomy.—This question of obtaining greater powers and larger revenues from the Dominion was the central subject of the year's discussions of the Parliaments in 1900. Messrs. Haultain and Ross had visited Ottawa the same year, and again in 1901; an elaborate statement of the whole case had been made by the Minister of Finance to Sir W. Laurier under date of Dec. 7, 1901; and a bill had been submitted to the Ottawa Government embodying the Territorial demands and requirements. The proposal was to form the four districts of Assiniboia, Saskatchewan, Alberta, and Athabasca into a province of the Dominion, under the terms of the British North America Act, with 4 members of the Senate and 10 in the Commons, with the same local constitution, powers, and rights as the other provinces; with the control of its Crown lands; and with subsidies of $50,000 for legislative purposes and $26,000 for the public works. The new province would have a population of 900,000; and interest at 5 per cent. on all lands granted for settlement by the Dominion Government within the bounds of the new province would be $2,000,000. Some of the reasons leading to this view may be found in the fact that the increase in the population now taking place will, in a short time, alter the conditions to be dealt with very materially; and that there is a considerable divergence of opinion respecting the question whether there should be one province only or more than one province. Holding this view, therefore, it will not be necessary for me to discuss the details of the draft bill which you presented as embodying your views. In my reply, dated April 2, the Territorial Premier concluded a vigorous statement in the following terms: "We can not but regret that the Government has not been able to recognize the urgent necessity for the change that has been asked for, and can only trust that, as you have denied us the opportunity of helping ourselves, you will be at least impressed with the necessity and the duty, which is now yours, of meeting the pressing conditions of the new Territories developing. While we may, in your opinion, without inconvenience, mark time constitutionally, we can not do without the transportation facilities, the schools, the bridges, and the other improvements which our rapidly growing population imperatively requires, and at once. Whether we are made into a province or not, our financial necessities are just as real, and in conclusion I can only trust that when the question of an increase to our subsidy is receiving consideration more weight will be given to our representations in that respect than has been given to our requests for constitutional changes." General Elections.—The Territorial Assembly was dissolved on April 25, nominations took place on May 10, and the elections on May 21. Messrs. A. E. de Rosenroll, A. B. Gillis, R. S. Lake, G. H. V. Bulyea, and A. D. McIntyre, all Government supporters, were elected without opposition. Fifteen Independents were nominated, and only 10 straight Opposition candidates. In Calgary J. J. Young, editor of the Calgary Herald, simply asked a free hand in the coming Legislature. He was elected by a large majority. The general result was the choice of 23 Government supporters, 4 Opposition candidates, and 5 Independents.

Public Works.—The report of this department in the Territorial Government revealed a heavy amount of work during the year, and a considerable development in the country. The sum of $258,000 was voted for public works needed in 1901. At the close of the year, over $1,000,000 had been expended, and the outstanding contracts and works provided for, but not yet paid, would eat up the remainder. The amount expended in public works for 1902 was more than $1,500,000 exceeding the year before. Mr. A. L. Sifton pointed out that this increased sum did not keep pace with the increased necessities of the department, and of the work required only the most pressing was performed. Had all the works been undertaken that were actually necessary, an expenditure of $350,000 would have been required.

In the Territories the government worked 32 coal-mines in operation, and by the returns filed the output was shown to be 331,907 tons of bituminous coal and 14,742 tons of anthracite, or a total output of 346,500 tons. This was an increase of 25,570 tons over the previous year.

During the year $8,300 was collected as departmental revenue. This was almost the only branch of the department that gave estimates which was owing to the fact that in the 1900 revenue was included a refund of $10,000 made by the Dominion Government for amounts expended in improving the Peace river road, and a $5,000 refund of expenditure on the bridge over Jelly river at Standon. The expenditure for the administration of the department was $12,571. In the survey branch there were 9 employees. Instructions for 230 surveys were issued, 187 of which were completed before the season was over. In the year 1900 500 miles for right of way were settled. The usual schedule of road surveys made during the year was extended to the report. The department now owned 1,300 bridges, and $33,082 was spent last year in repairing them. Wooden structures, as they are worn out, were being replaced by steel ones. In all, 113 were built last year, at a cost of $69,296.

In irrigation work the report gave the following particulars: Number of canals and ditches constructed, 169; length of constructed canals and ditches, 469 miles; number of water-rights recorded for canals and ditches not yet completed, 14; number of acres susceptible for irrigation from completed and constructed canals or ditches, 87,822; number of water-rights recorded for domestic power and other purposes, 127.

Immigration.—The year 1902 will be remarkable in the Territories as well as in Manitoba for the beginning of a wave of emigration from the United States. Slow settlement had been going on for years in different regions of the country, but now it had become a rush. In the southeastern section nearly all the new arrivals were described as brought from Iowa and Minnesota. The Canadian-American Land Company acquired 125,000 acres of Canadian Pacific Railroad lands, and strenuously endeavored to sell their holdings. Another aid to settlement was a combination of Iowa bankers, who purchased 40,000 acres for the same purpose. Conservative estimates placed the total increase at 50,000 persons in the south, at Edmonton and Calgary, around Lethbridge and Wetaskiwin, and among the Mormons of Cardston. Speaking of his first trip in three years through this country, Sir W. C. Van Horne made the following statement in Montreal on Sept. 30, 1902: "The homestead lands immediately along the railway-tract. The general result was the choice of 23 Government supporters, 4 Opposition candidates, and 5 Independents.
In Manitoba, I suppose, practically all the homestead lands have been taken up, and practically all the farms sold. This is also largely true of Eastern Assiniboia, but as you go farther west the unoccupied areas increase.

**Agriculture.**—The work of the farmer and rancher and dairyman was the central source of Territorial progress in 1901-02. The product of the creameries in the former year showed an average price of 12.23 cents a pound, with 1,425 patrons, for 672,393 pounds of butter. The secretary of the Western Stock-Growers’ Association made figures public in April, 1902, which showed a shipment from Alberta of 45,501 head of live stock in the previous year, compared with 46,231 in 1900 and 27,578 in 1899. The grain production of the Territories in 1901 was as follows: Wheat, 12,678,543 bushels threshed, 24.92 bushels an acre; oats, 11,113,066 bushels threshed, 48.43 bushels an acre; barley, 736,749 bushels threshed, 38.73 bushels an acre.

According to Crop Bulletin No. 2, issued on Sept. 1, 1902, by the Department of Agriculture at Regina, the estimated production for the year was 14,495,900 bushels of wheat, 10,725,500 bushels of oats, 34,000 of barley, and 84,000 of potatoes. At the annual meeting of the ‘Territorial Horse-Breeders’ Association at Calgary on May 16 the secretary estimated the number of horses in the Territories at 90,000 for Alberta, 45,000 for Assiniboia, and 15,000 for Saskatchewan. In 1901, 1,267 horses were imported via Calgary from the United States at an average price of $32.88, and 2,806 via Lethbridge at $31.71.


**Government and Politics.**—There were no changes in the composition of the provincial Government in 1902. G. H. Murray was Premier and Provincial Secretary; J. W. Longley, Attorney-General; Arthur Drysdale, Commissioner of Works and Mines; and the members without office were T. Johnson, A. H. Comeau, A. MacGillivray, T. R. Black, W. T. Pipes, Hon. D. MacInnes, and T. R. Poland. On Feb. 13 the first session of the thirty-third Assembly of the province was opened by Lieutenant-Governor A. G. Jones, with a speech from the throne, of which the following are the significant passages:

“For some years past evidences of steady progress have been manifest in the agricultural, mining, fishing, and lumbering enterprises of the province, and the reports of the banking and other commercial institutions of the country offer conclusive evidence of marked and notable advance during the past few years. The output of coal in Nova Scotia for the past year was considered the largest of any in our history, and the indications are for a substantial increase during the present year. The railway between Windsor and Truro, commonly known as the Midland Railway, has during the past year been completed and open for public traffic, as also the Inverness and Richmond Railway, between the Strait of Canso and Broad Cove Mines. Both of these railways open up important sections of country. Active work has been begun upon the railway between the Strait of Canso and St. Peters, which has been subsidized by the Government. During the last session of the Legislature a measure was adopted authorizing my Government to enter into a contract for the construction of a railway from the Head of Bay to Maitland. The debate on this question had been protracted, my Government immediately had negotiations with various parties for the carrying out of the provisions of the act, and I may state that my Government ultimately entered into a contract with the Halifax and South Western Railway Company, to whom a charter was granted, under the provisions of the law, by order in Council, for the construction of a line of railway from Halifax to Barrington. The terms of such contract were somewhat in excess of the powers embodied in the act relating thereto, and such contract was made subject to ratification by the Legislature. A copy of this contract will be laid before you, and an act will be submitted for the ratification thereof.

"Since the recess steps have been taken toward the establishment of a public sanatorium for the treatment of tubercular diseases, and upon the report of the Medical Commission appointed for such purpose a site has been selected and secured."

Thomas Roberston was elected Speaker of the Assembly, and Robert Boak was maintained in his office of president of the Legislative Council, which he had held since 1878. When the coronation honors were announced it was found that he had been knighted in recognition of his long retention of an important office. In the session that closed on May 27, 1902, 70 acts were passed, of which the following were the most important:

To secure the registration of municipal debentures.

Respecting the maintenance and reform of juvenile offenders.

Respecting the encouragement of building of railways.

To amend chapter lii, Revised Statutes, 1900, the education act.

To amend chapter xviii of the Revised Statutes, 1900, the coal-mines regulation act.

To amend chapter cxxi, Revised Statutes, 1900, the mechanics’ lien act.

To amend chapter clxii, Revised Statutes, 1900, of investment of trust funds in certain loan companies.

To amend subsection 2 of section 10 of chapter clxix, Revised Statutes, 1900, of the sale of land under execution.

To amend chapter cxlv, Revised Statutes, 1900, the assignments act.

Of the mass of legislation involved, a large portion was private bills. Others were merely amendments to existing laws. A good deal of discussion took place about the proposed Maritime School of Agriculture, but nothing definite was done, and the principal enactment of the Legislature was the ratification of a contract regarding the South Shore Railway. Such by-elections as occurred during the year went in favor of the Government, which had only two members in opposition until December, when two independents were elected.

**Finances.**—The financial statement was presented to the House on March 19 by Mr. Longley. The estimates for the year ending Sept. 30, 1902, included an expenditure of $1,047,920 and a revenue of $1,032,106, against the estimate for the preceding year of $1,052,965 for expenses and a revenue of $1,034,096. The expected revenue included $460,000 from mines, $30,000 from Crown lands, $50,000 from the Nova Scotia Hospital, $35,000 from succor, and $33,000 from Dominion subsidies. The estimated expenditures included $33,000 upon agriculture, $280,000 upon education, $20,000 upon Crown lands, $50,000 for legislative expenses, $1,962,000 for the Public Schools (which included $22,000 upon the welcome to the Prince and Princess of Wales in 1901), $134,850.
upon public printing, $32,219 upon steamboats, ferries, and packets, $20,000 upon salaries, $100,000 on roads and bridges, $21,000 for the provincial engineer's office, $149,194 upon debenture interest, $11,500 for election expenses, and $32,000 for miscellaneous purposes. The actual total receipts from all sources for the year ending Sept. 30, 1901, were $1,843,995. The expenditures were $1,781,386.

The assets of the province on Sept. 30, 1901, were stated at $1,938,654, of which $1,056,128 was a Dominion of Canada provincial indebtedness from before confederation. The liabilities included $2,043,500 of provincial debentures payable in Halifax, and $1,727,066 payable in London.

Education.—According to the report of the Superintendent of Education, Dr. A. H. McKay, there were 1,848 school sections in the province compared with 1,875 in 1900; and 145 sections without schools, against 132. The schools in operation had decreased from 2,417 in 1900 to 2,367 in 1901; the total number of male teachers had decreased from 618 to 540, while the number of female teachers had increased from 1,941 to 1,952. The total number of pupils was 72,249, the average being 78.01.

Transportation.—The new railways opened in 1901 included the Inverness and Richmond, 61 miles, from Port Hastings to a junction with the Intercolonial Railways at Point Tupper, and the Midland Railway, 54 miles, from Windsor to Truro. The Cape Breton Railway Extension from Point Tupper to St. Peters, and thence to Louisbourg, was under construction, and several projected lines were under survey. All were connected with the mineral development of the province. The traffic of the railways under provincial control in the year ending Sept. 30, 1901, included the carriage of 200,018 passengers, with receipts amounting to $867,747; the carriage of freight and live stock, with returns of $354,865; and the carriage of mails and sundries, with returns of $153,090—a total of $1,282,647, compared with $254,608 in 1900.

The most important piece of legislation in 1902 was that relating to the South Shore Railway—the granting of sufficient Government assistance to insure the building of a line between Halifax and Yarmouth. The Opposition declared that in the contract made in this connection the public interests were not sufficiently protected.

The Government side of the Legislature:

Mines.—The mineral production for the year ending Sept. 30, 1901, included 419,567 tons of iron ore, compared with 15,597 in the previous year; 3,662,925 tons of coal consumed; 82,000 tons of coke made, compared with 62,000 tons; 135,637 tons of gypsum, against 122,281 tons. Grindstones decreased in production from 300,000 tons to 215 tons. Limestone increased from 50,000 tons to 95,794 tons. And pig-iron rose from nothing to 90,034 tons. The revenue of the Mines Department for the year ending Sept. 30, 1901, was $42,925, and lesser sums for other royalties, leases, rentals, licenses, and fees. The sum of $2,630 was paid to the Dominion Iron and Steel Company for an allowance of 63 cents on each ton of coal consumed in the local manufacture of iron and steel up to Aug. 16, 1901. The United States took 624,273 tons of Nova Scotia coal in 1900, and 690,086 tons in 1901. A dispute that arose between the Dominion Coal Company of Sydney and its employees as to the rate of wages was decided, under the terms of the miners' arbitration act, by a Board of Arbitrators. The decision was against any present increase.

On Feb. 26, 1902, the Nova Scotia Mining Society met in Halifax, with President W. L. Libbey in the chair. In his opening address Mr. Libbey reported great increase in the facilities of local coal-mines; substantial progress in obtaining the confidence of capitalists in provincial resources and transportation arrangements; marked progress in systematic and legitimate development work below ground; a fairly plentiful supply of labor in the coal mines; and an adequate supply of technically educated miners. A report was then presented from the committee which had been appointed to urge the Government to deal with the following subjects: 1. A Government assay office. 2. Technical education. 3. Encouragement to deep mining. 4. An improved departmental report. 5. To revive the limited increase of 1888 requiring a record of plans of the workings of all metalliciferous mines. 6. That in future appointments to the office of deputy inspector shall be subject to a technical examination in the same manner as all other appointments. 7. That all rentals be made payable on two fixed days in the year.
a mile better for the construction of the road through this whole section of country than if it were undertaken as a Government work. Of course, he was aware that the road was going to pay; but if it did not pay, the Government would be in a better position to that extent than if they built it themselves, because they would be paying the road on the most favorable terms for the smaller sum per mile. He might add, that the contract would never have been entered into if the Government had any doubt that the earnings of the road would pay the tripping and moderate sum of $350 per mile, which was all that the obligations of the Government involved._

On March 26, 1902, a report of a special committee of the House was presented by E. M. Macdonald. It said, among other things: "The establishment of bait-freezers has helped to develop the fishing industry, and in order that the people of central Canada and the central United States may be reached with our fish products we require certain advance steps to be taken. From the facts before us we are of the opinion that the following improvements are required: First, the establishment of refrigerators at the different railway terminals, to which fish could be sent for substantial lease at all times. Second, the adoption of improved cold-storage cars, and better attention paid to icing cars in transit. Third, Government assistance for experimental car lots of fresh fish to be sent directly to Chicago or other Western points, under the supervision of an expert. Fourth, the establishment of a large freezer at different points to provide bait._

The agricultural societies in Nova Scotia numbered 151 in 1901, with 8,500 members, having subscriptions of $10,771 and a Government grant of $10,000. Special attention was paid during the year to dairying, and reports of operations published on April 5, 1902, showed a production of 316,180 pounds of cheese, worth $30,087, and 542,626 pounds of butter, valued at $53,222. In his annual report, the provincial Secretary of Agriculture said that the farmers were giving more attention to the raising of horses, and that the outlook for cattle, sheep, and swine was most satisfactory._

Crown Lands.—The receipts from this source of revenue in the year ending Sept. 30, 1902, were $45,581—the largest since 1872. The estimated returns for 1901 were $35,000; the actual receipts were $91,548. In his annual report, dated Oct. 1, 1901, Mr. Longley made the following statement: "The result of the new policy of issuing leases instead of grants has appeared to increase the demand for land on the one hand, and at the same time it has made it easy to issue leases for large areas. The result of these leases is not to tie up the lands for any private parties permanently, but only for a term of twenty, or possibly forty years, and care is taken that when large areas are leased it shall be in the furtherance of some lumber industry which is calculated to advance the industrial life of the province. The very large lease at the adoption of the last year and this year are in connection with the development of the pulp industry in Nova Scotia. Two or three years ago a large lease was issued in the counties of Inverness and Victoria to companies who have undertaken to erect large pulp-mills and create a great industry in that section. The applications for large areas made during the fiscal year just closed are chiefly for lands in western Nova Scotia, with a view to the further development of the same industry._

OBITUARIES, AMERICAN. Adams, Charles Kendall, educator and historian, born in Derby, Vt., Jan. 24, 1835; died in Reidsland, Cal., July 28, 1902. He was graduated at the University of Michigan in 1861, and studied in Germany, France, and Italy. He became Assistant Professor of History in the University of Michigan in 1863, and in 1867 was made full Professor of History. In 1881 to 1885 he was non-resident Professor of History in Cornell University, and in 1885 he succeeded Andrew D. White as its president. He resigned in May, 1892, and two months later accepted the presidency of the University of Wisconsin, serving till his resignation in October, 1901. He was president of the American Historical Association in 1890. He was the author of Democracy and Monarchy in France (1874); Manual of Historical Literature (1882); British Orations (1884); and Christopher Columbus. He was editor-in-chief of Johnson's Universal Cyclopaedia (1892–95)._

Agnew, Daniel, jurist, born in Trenton, N. J., Jan. 5, 1809; died in Beaver, Pa., March 9, 1902. He was graduated at the Western University of Pennsylvania, and was admitted to the bar in 1829. He practised in Pittsburgh, and subsequently in Beaver, where he rapidly achieved a high reputation as a real-estate lawyer. In 1833 he joined the Whig party, and through his gift of oratory soon became a leader. He was a member of the Constitutional Convention in 1837–38, and aided in framing a series of amendments to the Constitution. He became a part of it. In June, 1861, he was appointed president judge of the 17th Judicial District of Pennsylvania, and in October following he was elected for a term of ten years. He was reelected without opposition in 1861, and in 1865 was elected to the Senate of Pennsylvania, where he served as Associate Justice till 1874, when he became Chief Justice, and continued in that office till the expiration of his term in 1879._

Anderson, John, Professor of rhetoric in the University of College in Wiscasset, Me., about 1834; died in Portland, Me., April 19, 1902. He removed to Boston in early life. When the civil war broke out he was commissioned major of the 1st Massachusetts Regiment, and later he was promoted brigadier-general of volunteers. After the war he was in business in Boston for many years._

Andrew, Charles Bartlett, jurist, born in Sunderland, Mass., Nov. 4, 1834; died in Litchfield, Conn., Sept. 12, 1902. He was graduated at Amherst College in 1858; studied law and was admitted to the bar in Litchfield, where he afterward practised. He was elected to the State Senate in 1868 and 1869, and to the House of Representatives in 1889; was Governor of the State in 1872–73; judge of the Superior Court in 1882–89; and chief justice of the Supreme Court from 1889 till his retirement, Oct. 1, 1901._

Andrews, George Pierce, jurist, born in North Bridgton, Me., Sept. 29, 1835; died in New York city, May 24, 1902. He was graduated at Yale University in 1858; was admitted to the bar in 1861; and soon afterward was appointed Assistant United States District Attorney, which office he held six years. From 1872 till 1884 he
was assistant and corporation counsel of New York city, and from 1884 till 1901 was an Associate Justice of the Supreme Court. His opinions, especially in tax cases, were considered of great value.

Ayres, Alfred. See OMMN, THOMAS EMERSON.

Babcock, Nathan, manufacturer, born in Westerly, R. I., Nov. 19, 1824; died in Pawcatuck, Conn., May 31, 1802. When eighteen years of age he was apprenticed to a machinist, and afterward he applied himself to mechanical pursuits. In 1855 he entered into partnership with the late C. B. Cottrell, under the firm name of Cottrell & Babcock, for the manufacture of cotton and woolen machinery, and in a few years the firm began building power printing-presses. In 1880 he retired from the firm, and two years later he organized the Babcock Printing-Press Manufacturing Company, of which he was secretary and treasurer from the time of its organization till his death.

Baldwin, Stephen Livingston, missionary, born in Somerville, N. J., in 1835; died in Brooklyn, N. Y., July 28, 1902. He became a missionary when a young man and labored in China under the auspices of the Methodist Episcopal Church for twenty years, during which time he translated a large part of the Bible into Chinese. He is also said to have printed the first copy of the Bible in that language. After his return to the United States he held pastorate in the Methodist Episcopal Church, and was conspicuous in the organization of the Ecumenical Missionary Conference in New York in 1900.

Barrett, Mark, born before the great fire in Massachusetts about 1822; died in Chicago, Ill., June 23, 1902. He removed to Chicago in 1844, and for a time was engaged in farming. Later he studied law in Lacon, Ill., became a partner of his preceptor under the name of Fenn & Bangs, and on the death of Judge Fenn associated himself with F. W. Shaw. Mr. Bangs practiced in association with Mr. Shaw till the organization of a new judicial district, when the former was chosen its first judge, and at the end of his term returned to private practice. In 1870 he was elected to the second U. S. Senate, in 1875, he was appointed United States District Attorney, and during his incumbency of this office he was active in prosecuting the famous Whisky Ring. Subsequent to the revenue laws, Judge Bangs was foremost among the temperance and total-abstinence reformers; was one of the organizers of the Republican party in the State of Illinois; and in 1862 with four others established the Union League of America.

Barnwell, Robert Woodward, clergyman, born at Beaufort, S. C., Dec. 27, 1849; died at Selma, Ala., July 24, 1902. He was a graduate of Trinity College, Hartford, Conn., and studied for the Episcopal ministry at the General Theological Seminary, New York city. He took orders, and, after some months devoted to missionary work in Georgia, was rector of Trinity Church, Demopolis, Ala., in 1876-'80, and of St. Paul's, Selma, 1880-1900. He declined a nomination to the bishop coadjutorship of Alabama in 1890, but on the death of Bishop Wilmer, in 1900, he accepted the office of Bishop of Alabama and was consecrated in July. Bishop Barnwell possessed great strength of manner, and in his administration of affairs exhibited rare tact and skill.

Barrows, John Henry, educator, born in Medina, Mich., July 11, 1847; died in Oberlin, Ohio, June 3, 1902. He was a son of the late Prof. John M. Barrows; was graduated at Olivet College in 1867, and later at Yale, Union, and Andover Theological Seminaries; and for nearly three years was engaged in missionary and educational work in Kansas. After a pastorate with the First Congregational Church in Springfield, Ill., he spent a year in travel in Europe and the Holy Land. On his return to the United States he became pastor of the Eliot Congregational Church, Lawrence, Mass., where he remained for five years. He removed to Chicago in 1881, to take charge of the First Presbyterian Church, and remained there more than fourteen years. The semi-centennial celebration of the founding of the Presbyterian Church held in 1883, and this led him to publish a history of that Church, under the title of Ecclesiastical Antiquities. He took part in all missionary and reformatory enterprises in Chicago, became a favorite speaker at college commencements, on the lecture platform, at temperance, missionary, and Christian Endeavor conventions, at soldiers' meetings, and at the gatherings at Chautauqua, N. Y. In 1893 he was president of the World's Parliament of Religions. In 1894 he accepted the lectureship of Comparative Religion in the University of Chicago, and in 1896 resigned his pastorate in order to deliver in India a series of lectures on a foundation endowed by Mrs. Caroline E. Haskell in connection with the University of Chicago. On his return to the United States in May, 1897, he delivered numerous lectures, including the Morse course at the Union Theological Seminary on The Christian Conquest of Asia. In November, 1898, in December, 1897, he accepted the presidency of Oberlin College, which he held until his death. He was the author of I Believe in God; Life of Henry Ward Beecher; The World's Parliament of Religions; A Theory of the Revenue Laws; and The New House of Wisdom. Until his death he was a professor of the Bible, and the author of several books on the Bible and on World Religion; and The Gospels are True History.

Beach, Miles, jurist, born in Saratoga County, New York, in 1840; died in New York city, May 18, 1902. He was graduated at Union College in 1854, studied at Albany Law School, and soon after his admission to the bar became associated with his father in the law firm of Beach & Smith. He entered political life when a young man, and subsequently became mayor of Troy. In 1867 he removed to New York and organized the firm of Beach, Daly & Brown; later Beach & Brown. He was elected to the Court of Common Pleas in 1879, and on the expiration of his term in 1884 was elected a justice of the Supreme Court of the State.

Beardshear, William Miller, educator, born in Dayton, Ohio, Nov. 7, 1856; died in Des Moines, Iowa, Aug. 5, 1902. He was brought up on a farm, and at the age of fourteen entered the National army. After the war he was graduated at Otterbein University, Ohio, and later at Yale. In 1881 he was chosen president of Western College, Toledo, Ohio, where he served till 1889, when he became superintendent of the public
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schools of Des Moines. Two years later he was made president of the Iowa State College of Agriculture and Mechanic Arts, which post he held until his death. In 1884 Dr. Boardman was made president of the Iowa State Teachers' Association, and in 1897 was appointed one of the United States Indian Commissioners.

Behman, Lawrence G., theatrical manager, born in Brooklyn, N. Y., June 4, 1855; died there, Feb. 27, 1902. He was brought up with the view of becoming his father's assistant in the grocery business, but as he grew to young manhood his ideas of making a fortune developed along different lines. While still a mere youth he gave summer-night concerts in the old Clermont Avenue Skating-Rink, and with the money he made there he went to Philadelphia in 1876, while the Centennial Exposition was in that city, and, with a friend, Richard Hyde, another Brooklyn youth, he leased a theater and made considerable money. They returned to Brooklyn, and leased a building in Adams Street that had formerly been the Brooklyn Market. This the young managers soon turned into a theater, and they gave their first performance in it May 19, 1877. The character of the entertainment was similar to that presented at the German Volksgarten, but the very next day the building was destroyed by fire, in 1890, Mr. Behman purchased more adjacent land and erected a new and handsome theater. The partnership was dissolved in 1890, and the Behm and Behm Theater Company was incorporated. They acquired the ownership of the Star, Novelty, and Amphitheaters, in Brooklyn, and owned controlling interests in the Herald Square Theater, in Manhattan, and the Newark, Bijou, and Folly Theaters, in Newark, N. J. They also owned many companies of vaudeville performers on the road. When Mr. Behman died he was considered one of the wealthiest managers in the United States.

Bierstadt, Albert, artist, born near Düsseldorf, Germany, Jan. 1, 1830; died in New York city, Feb. 12, 1902. He was brought to the United States in infancy, his family settling in New Bedford, Mass., where he spent his youth. He studied painting in Düsseldorf, Germany, under Leibl and later in Rome, returning to the United States in 1858, and introducing what is known as the Düsseldorfian manner of landscape. He visited the West and the Rocky Mountains in 1861. He was the author of many of his most noted pictures; and in subsequent visits to Europe he collected material for Alpine and Italian subjects, the best known of which is his Storm on the Matterhorn. He was elected a member of the National Academy of Design in 1860; was awarded many foreign medals; was decorated with the Cross of the Legion of Honor in 1867, with two degrees of the order of St. Stanislaus in 1869 and 1872, and with the Imperial Order of the Medjidieh in 1886. His paintings of American scenery include Laramie Peak (1861); Landers Peak in the Rocky Mountains (1862); North Fork of the Platte (1864); Looking down the Yosemite (1865); El Capitan; On Merced River (1866); Valley of the Yosemite (1866); Settlement of California; Discovery of the Hudson River; Emerald Pool on Mount Whitney (1870); Great Trees of California (1874); Valley of Kern River, California (1875); Mount Whitney, N. P.; Colosseum; Mount Cardora; Mountain Lake, Sierra Nevada (1875); Mount Corcoran, Sierra Nevada (1878); Geyser (1883); View on Kern River (1884); On the Saco, New Hampshire (1886); and California Oaks (1886).

Bigelow, Marshall Train, printer and proof-reader, born in South Natick, Mass., Oct. 6, 1822; died in Cambridge, Mass., Dec. 28, 1892. He became connected with the University Press in Cambridge in 1843, and was for many years a member of the firm, the firm name from 1859 to 1879 being Welch, Bigelow & Co. He was long ranked as one of the most accomplished proof-readers in the country, but had retired from active life for several years. He published Punctuation and Other Typographic Matters (1881), and Mistakes in Writing English and How to Avoid Them (1886).

Bloodgood, Delavan, surgeon, born in Springfield, N. Y., Aug. 20, 1831; died in Brooklyn, N. Y., April 4, 1902. He was graduated at Madison University, Hamilton, N. Y., in 1852, and later at Jefferson Medical College, Philadelphia. He entered the United States navy with the rank of assistant surgeon in 1857, and in the civil war served on the Mohawk and the Dacotah, which took part in several important operations. After the war he served on foreign stations, and for several years was first surgeon of the Pacific squadron. In 1886-'87 he had charge of the Naval Hospital at the Norfolk Navy-Yard, and later of the naval laboratory at the Brooklyn Navy-Yard, holding the latter assignment at the time of his retirement, Aug. 20, 1893. When the Spanish-American War broke out, in 1898, Surgeon Bloodgood was assigned to special duty at the naval hospital at Key West.

Bouton, John Bell, author, born in Concord, N. H., March 15, 1830; died in Cambridge, Mass., Nov. 18, 1902. He was graduated at Dartmouth College in 1849 and studied law, but did not practice. His life work was that of journalism and literature. He was editor of the Cleveland, Ohio, Plain-Dealer in 1851-'55; removed to New York city in 1857 and became connected with the Journal of Commerce, with which paper he remained till 1889, when he retired from journalism. He was a contributor to Appleton's Annual Cyclopædia for ten years. His published books include Loved and Lost, a series of essays (1857); Round the Block (1864); Treasury of Travel and Adventure; Round about Moscow (1887); Uncle Sam's Church (1886); and Memoirs of General Bell (1902).

Boynton, James Stoddard, jurist, born in Henry County, Georgia, May 7, 1833; died in Griffin, Ga., Dec. 29, 1897. He entered the University of Georgia, in 1849, but did not graduate. He was admitted to the bar, however, and practiced law. He was a member of the Board of Education of Butts County, Georgia, in 1869; served in the Confederate army during the civil war, rising from private to colonel; was judge of the Spalding County Court in 1868-'68; mayor of Griffin in 1869-'72; president of the State Senate in 1880-'82; and became Governor of Georgia in 1883. In 1888-'93 he was judge of the Flint Circuit Court, resigning in the latter year to become division counsel of the Central of Georgia Railway.

Brantley, John Joyner, clergyman, born in Augusta, Ga., Dec. 28, 1821; died in Macon, Ga., June 8, 1902. He became connected with the Baptist Church in Milledgeville in 1839, and was licensed to preach in the First Church of Charleston, S. C., of which his father was pastor, in 1844. He held pastorates in Fayetteville, N. C., five years, and in Newbury, S. C., seventeen years; taught for several years in Richmond Academy, Augusta, Ga.; was principal of the Male Academy in Pembroke, N. C.; was Professor of Languages in Mercer University from 1867 till his death. Dr. Brantley was one of the most accomplished linguists in the South.

Bridges, Eliza (Mrs. Charles H. Erwin), actress, born in Brooklyn, N. Y., in 1832; died in
Kansas City, Mo., July 12, 1902. In early youth she played in support of Edwin Forrest and Willia
mson Booth. In her years she acted with Edwin Booth, Joseph Jefferson, Lawrence Bar
rett, and other stars. When Joseph Jefferson first produced his famous play, Rip Van Winkle, Miss Bridges was the original Gretchen. She made her last appearance in 1887, in Fogg's Ferry. She was first married, while very young, to Tunis J. Johnson, and after his death she be
came the wife of Charles H. Erwin. She posses
sessed a pleasing personality and was a great favorite with the public for many years.
Brooks, Elbridge Streeter, author, born in Lowell, Mass., April 14, 1846; died in Somerville, Mass., Jan. 7, 1902. He was the son of a Uni
versalist clergyman, was educated in what is now the College of the City of New York, and in early manhood was employed in the publishing house of D. Appleton and Company. For about fifteen years he was connected with New York book firms and was a member of the editorial staff of the Brooklyn Daily Eagle. In 1884 to 1887 he was an assistant editor of the St. Nicholas Magazine, and then, removing to Bos
ton, he became connected with the publishing firm of L. S. Lothrop. In 1892, he edited the Wake Awake Magazine a few years, and on the reor
ganization of the Lothrop firm in 1895 became its literary adviser, and so continued until his death. With few exceptions, his writings are for young persons and are intended to popularize American history with juvenile readers and instil a sense of patriotism into the rising generation. In this aim he has been singularly successful, and his books have attained a wide circulation. He was a member of the Authors Club of New York, and one of the founders of the later Boston Au
thors Club. He was a man of great kindliness of disposition, and in spite of an overwhelming press of duties was always ready to extend a helping hand to younger writers who sought his advice or aid. Beside editing several works, such as Great Cities of the World (1890) and The Boy Life of Napoleon (1885), he was the author of The Life Work of Elbridge Gerry Brooks (1885); The Story of a Man's Land, a work similar to Alice in Wonderland (1885); Historic Boys (1885); In Leisler's Times (1886); Chivalric Days (1886); Storied Holidays (1887); His
tory in Story of the American Indian (1887); The Story of New York (1888); The Story of the American Sailor (1888); The Story of the American Soldier (1889); A Son of Issa
char, a novel (1890); The Story of the United States (1891); The True Story of Christopher Columbus (1892); Heroic Happenings (1893), The Century Book for Young Americans (1894); The True Story of George Washington (1895); A Boy of the First Empire (1895); Great Men's Sons (1895); The Story of Miriam of Magdala (1895); Under the Tamaracks (1896); The True Story of Abraham Lincoln (1896); The Century Book of Famous Americans (1896); The Long Walls (with J. Alden) (1896); The True Story of Ulysses S. Grant (1897); The Century Book of the American Revolution (1897); And He was a
son of the Revolution (1898); The True Story of Ben
jamin Franklin (1898); The Master of the Strong Hearts (1898); Stories of the Old Bay State (1898); The Story of a New State, Maryland (1898); Historic Americans (1899); The True Story of Lafayette (1899); On Woodcove Island (1899); In Blue and White (1899); The Story of the Niagara (1899); The Great Metropolis: A Mirror of New York (1899); and Sights and Sensations in Europe (1872).
Bruce, Saunders Dewers, author, born in Lexington, Ky., Aug. 10, 1832; died in New York City, Jan. 31, 1899. He received a degree at Transylvania University in 1846, and two years later engaged in business. When the civil war broke out he enlisted in the National army; became inspector-general of the Union Home Guards of Kentucky; built fortifications at the mouth of Cumberland river; had command of the 22d Brigade in the battle of Shiloh (where he was wounded), and of the provisional brigade that opened Cumberland river below Fort Donelson. He resigned on account of failing health in 1864, and removed to New York, where he became widely known as an authority on the pedigree of horses. He compiled the American Stud-Book, and wrote The Thoroughbred Horse.

Bryant, John Howard, poet, born in Cummington, Mass., July 22, 1847; died in Princeton, Ill., Jan. 14, 1902. He was the youngest brother of William Cullen Bryant, and was educated at Rensselaer Polytechnic Institute, Troy, N. Y., and settled in Jacksonville, Ill., in 1839, and a year later in Princeton, where he lived until his death. He became a justice of the peace for Putnam County in 1834; recorder of deeds for Berrien County in 1839; was a member of the State Legislature; frequently served on the Board of Supervisors; and was for fifteen years a member of the Board of Education, during part of this time he was a member of the Board of Common School Directors. He was a member of the 1st Regiment of the National Guard of Connecticut in 1844, the author of Poems, Life and Poems, and several addresses.

Bryant, Neil, actor and minstrel performer, born in Keesville, N. Y., in 1835; died in Brookline, Mass., Feb. 5, 1892. He was one of the three Bryant brothers, who at one time were at the head of the class of entertainment known as negro minstrels. His two older brothers had been playing some years before he made his first appearance, in 1845, but within a year after his début he was acknowledged to be the champion flute-player of America. He traveled for several seasons in the West and the South, and in 1853 he entered into partnership with his two brothers, Jerry and Dan, in the management of a New York theater. They organized a minstrel company called The Crockanians, and opened at Mechanics’ Hall, No. 472 Broadway, in the autumn of 1857. They remained at that theater ten years, during which time they gained great popularity and a large fortune. In 1867, the oldest brother having died, Neil and Dan Bryant removed their company to the Tammany building, where Tony Pastor’s Theater now stands. Here they gave minstrel performances until 1870, when they removed again to a hall in Twenty-third Street, near Sixth Avenue. When the building in East Fourteenth Street known as Tammany Hall was erected, Neil Bryant was chosen to lay the cornerstone. In 1875 Dan Bryant died, and the company was disbanded. In 1877 Neil organized a new company, calling it by the old name of Bryant’s Minstrels, and opened at the New York Theater, a building for which he had been instrumental in raising money. In 1878 he retired from the stage and took a place in the sheriff’s office, which he held until he received an appointment in the office of the Coast Survey, which he filled until his death. He was once confined in prison for his embattled physical condition compelled him to retire.

Buck, Alfred Eliah, diplomatist, born in Foxcroft, Me., Feb. 7, 1832; died in Tokio, Japan, Jan. 12, 1899. He received a good education, and became principal of the Lewiston (Me.) High School, and later superintendent of the public schools of that city. When the civil war broke out he raised a company for the 13th Maine Volunteers, of which he became captain. In 1863 he recruited a colored regiment, of which he became colonel, and he was present at the capture of Fort Blakely, Mobile. In 1865 he was made inspector-general for western Louisiana, and in June, 1866, was mustered out. After the war he settled in Mobile, Ala., and engaged in the manufacture of turpentine. He was elected to Congress in 1869; was president of the Mobile City Council in 1873; and in the latter year removed to Atlanta, Ga., where he was clerk of the United States circuit and district courts in 1873–77, and United States marshal for Georgia in 1889. In 1897 he was appointed minister to Japan by President McKinley, which post he held till his sudden death while hunting with the Emperor.

Burdett, Charles L., civil engineer, born in Nantucket, Mass., Sept. 3, 1848; died in Hartford, Conn., Feb. 13, 1892. He removed to Ansonia, Conn., in 1882, where he lived until his death. Besides practising as a civil engineer, he was noted as a patent lawyer. He organized the signal corps member of the National Guard, and was signal officer on the brigade staff for several years. He was appointed colonel of the 1st Regiment of the National Guard of Connecticut in 1884, and was the last to command the 上部 against Spain in 1898 he enlisted with a large part of his regiment, and was stationed first in Maine and later at Camp Alger, near Washington, where he remained till the close of the war.

Burke, Joseph, violinist, born in Galway, Ireland, about 1816; died in New York City, Jan. 19, 1902. He went on the stage when eight years of age, and traveled through Europe as musician and actor. In 1830 he came to the United States, where he acted for a time; later studied law in Albany, N. Y., and was admitted to the bar in 1848, but never practised. Jenny Lind selected him as her accompanist during her American concert tour in 1859–61, and he was widely known as an instructor on the violin till his retirement in 1880.

Butler, William Allen, lawyer and author, born in Albany, N. Y., Feb. 26, 1825; died in Yonkers, N. Y., Sept. 9, 1902. He was the son of Benjamin F. Butler, who was Attorney-General of the United States in the administrations of Jackson and Van Buren. He was graduated at the University of the City of New York in 1843, studied law with his father, and then traveled abroad, contributing to the Literary World a series of sketches entitled Out-of-the-Way Places in Europe. On his return he entered upon active law practice, which he pursued all his life. He contributed frequently to periodicals, in prose and in poetry, two of his series being The Cities of Art and The Early Artists and a humorous one entitled The Colonel’s Club. He published The Future, an academic poem, in 1846, and in 1850 Barnum’s Parnassus, similar to the famous Rejected Addresses. His greatest hit was Nothing to Wear, a satirical poem, which appeared first in Harper’s Weekly, and the humorous portions obtained immediate celebrity, was reprinted in England, and was translated into French and German. It was also followed by several imitations, such as Nothing to Say, Nothing to Do, Nothing to Eat, etc. Mr. Butler’s poem Two Millions was written for delivery before the Phi Beta Kappa Society of Yale University in 1847, and is a satire on genteel life. In 1890 he delivered before the Bible Society an address on The
Bible by itself. Two years later he published a biographical sketch of Martin Van Buren, and in 1857 his paper and charley of Lumber and Domestic, a story relating to the labor question (1886). He also delivered or published numerous other addresses and sketches. For portrait, see frontispiece.

Carleton, Charles, educator, born in Elyborne, Kent, England, Aug. 21, 1821; died in Bonham, Texas, Feb. 15, 1902. He went to Toronto, Canada, with his parents in 1854; was a seaman several years; and later worked on a farm in Fredonia, N. Y. While farming he studied for the ministry, and was graduated at Bethany College, West Virginia, in 1849. He held pastorates in a Baptist church in Georgetown, Ky., in 1849-50; in Lexington, Mo., and Little Rock, and Van Buren, Ark., where he also engaged in teaching, extending his labors from Fort Smith and Fayetteville to WALDRON. When the civil war broke out he removed to Texas, and settled on a farm in Collin County, where he remained at least a year, when he went to Dallas and resumed his work as teacher and preacher. In 1867 he removed to Bonham, where he resided till his death. He established the coeducational school known as the Bonham Seminary, which in 1882 became an academy exclusively for women, the name being changed to Carleton College. He was active in the organization of the American Christian Missionary Society in 1849, and was also one of the leaders in the Christian denomination in Texas.

Catherwood, Mary Hartwell, author, born in Luney, Ohio, Dec. 16, 1847; died in Chicago, Ill., Dec. 26, 1902. She was graduated at the Female College in Granville, Ohio, in 1868; and married John Steele Catherwood in 1887. She began her literary career as contributor to a juvenile magazine, and later she was on the editorial staff of the Chicago Graphic. She was the author of Croque-o’-Doom; Old Caravan Days; The high hills of Rome; The romance of Dol; The Belle of Ste. Anne; The Story of Tony; The Lady of Fort St. John; Old Kaskaska; The White Islander; The Chase of St. Casin and Thomas; The week of an Illinois town; and the little Renault; The days of Jeanne d’Are; Bony and Ban; Mackinac and Lake Stories; Spanish Peggy; and Lazare.

Channing, Blanche Mary, author, born in Liverpool, England, about 1863; died in Brookline, Mass., Aug. 9, 1902. She was the daughter of the Rev. William Henry Channing, for many years a Unitarian minister in Liverpool, and a grand-niece of Dr. William Ellery Channing. Her earlier years were spent in England, but in 1860 she came to the United States and made her home in Brookline, where she engaged in literary work and the designing of posters and book-covers. Her published books include Zodiac Stories (1890); Winifred West (1901); and The Balaster Boys (1902).

Charles, Brother (name in religion), educator, born in Paterson, N. J., in 1855; died in New York city, March 11, 1902. He was graduated with high honors in 1877 at the Manhattan College, of which he later became president. Holding the office till his death. In adopting the career of teaching he interested himself especially in Latin literature and the classics, as widely known in the educational work of the Roman Catholic Church in the United States.

Chase, Jefferson, inventor, born in Concord, Vt., July 24, 1831; died in Portland, Me., May 20, 1902. He first delivered a lecture before the Law School of the University of the City of New York. His collected poems were published in one volume in Boston in 1871. In 1846 he published, anonymously, Mrs. Limer's Raffle (1876) and Domesticus, a story relating to the labor question (1886). He also delivered or published numerous other addresses and sketches. For portrait, see frontispiece.

Clist, Henry Martyn, military officer, born in Cincinnati, Ohio, Feb. 20, 1839; died in Rome, Italy, Dec. 17, 1902. He was graduated at Farmer's (now Belmar) Seminary in 1859, and studied law. When the civil war broke out he enlisted as a private in the 6th Ohio Infantry; was promoted to 2d lieutenant, then adjutant, and later major; and resigned in May 1864, with the rank of brevet brigadier-general. He was post adjutant of Camp Chase during the confinement of the Confederate prisoners captured at Fort Donelson, and served in Middle Tennessee and in the Chickamauga and Eastport campaigns. After the war practised law in Cincinnati; was mayor of College Hill, Ohio, two terms; corresponding secretary of the Society of the Cumberland in 1869-72; contributor to periodicals on civil-war subjects; and author of The Army of the Cumberland (1882); Life of Major Gen. George H. Thomas (1884); The Ohio Chapter of the Sons of the American Revolution, and organizer of the movement that resulted in the conversion of the Chickamauga battlefield into a national park.

Clark, Edward, architect, born in Philadelphia, Pa., in 1822; died in Washington, D. C., Jan. 6, 1902. He received an academic education; studied architecture with Thomas U. Walter, and when the latter became architect of the United States Capitol Extension was appointed his assistant. In 1865 Mr. Walter resigned, and Mr. Clark was appointed his successor, and in that office he served continuously until his death. He was a member of the commissions on the completion of the Washington Monument and the construction of the Library of Congress, and served on various other commissions for special Government work. In addition to his duties as architect of the Capitol, Mr. Clark had charge of improving the Smithsonian Institution, repairing the local court-house, and drawing plans for schoolhouses in Alaska. He was a trustee of the Corcoran Art Gallery and a member of numerous scientific institutions.

Clark, Heman, contractor, born in Ohio about 1839; died in New York city, Sept. 7, 1902. He was educated at Hiram College, taught school for a short time, and then went in the educational work of the Roman Catholic Church in the United States.
to the army post in that city from St. Louis under a contract with the Government. He also was an Indian agent for several years. He laid out the present town of Billings, Mont., and also formed a mining company and built extensive works there. He removed to California, where he was associated in business with men who afterward became wealthy in the development of the great enterprises. As a contractor Mr. Clark did considerable railroad building in Alabama and Nova Scotia, and then completed his greatest railroad work, the Northern Pacific. After finishing this railroad, he removed to New York city, where he formed the firm of O'Brien & Clark, which obtained the contract for building the New Croton Aqueduct. Mr. Clark's last engineering work was the construction of the Harlem River drawbridge for the New York Central Railroad.

Clarke, William, manufacturer, born in Paisley, Scotland, in 1841; died in Portland, England, July 7, 1902. He entered the thread-mills in Scotland founded by his ancestors, and mastered the details of every department of the business. In 1860 he joined his brother, George A. Clark, who came to the United States in 1856, and established a branch of the Paisley establishment on a small scale, from which grew the great works of the firm of J. B. & A. Clark died in 1873, and William Clark became sole manager of the business. (See GIFTS AND BEQUESTS.)

Clarke, Annie, actress, born in Boston in 1845; died in the electric light, Philadelphia, June 14, 1887. Her first appearance was at the Boston Museum, in 1853, as the Duke of York in Richard III. Early in her experience with this company she appeared as Polly in Uncle Tom's Cabin, and her juvenile rôle in The Silver Spoon. In 1856 she was one of the fairies in a spectacular production of A Midsummer Night's Dream. She then joined the Boston Howard Athenaeum for a season, playing child's parts, after which she traveled in the New England States with various organizations. In 1861 she returned to the Boston Museum, occupying a secondary place for a few seasons, afterward becoming the leading actress and appearing for many years in the principal roles of all the plays produced in that theater. It was a famous company that she acted with, including such players as William Warren, Charles Barron, and Mrs. Vincent, and Miss Clarke was their most popular and beloved protegée. She was a brilliant and versatile actress, in classical plays as well as in the modern drama. She became famous throughout the country, but seldom acted elsewhere than in Boston. The Museum was one of the last of the old theaters to keep its company together, but in 1892 its doors as a stock theater were closed, the plays on that occasion being A Scrap of Paper and Masks and Faces, in each of which Miss Clarke played the leading character. After this she played in several different companies, appearing with Richard Mansfield, Olga Nethersole, and Julia Marlowe. Her last appearance was in Chicago, where she was acting in Miss Marlowe's production of When Knighthood was in Flower at the time of her death. Miss Clarke was a highly accomplished woman, a great favorite professionally and socially, and one of the best-known stock actresses of her time.

Clarke, Charles H. T., military officer; born in Cork, Ireland, Feb. 4, 1838; died in Philadelphia, Pa., March 11, 1902. He came to the United States in 1853, and was admitted to the bar in Philadelphia in 1858. He entered the medical service he was as sergeant-major in the 18th Pennsylvania Volunteers in April, 1861. After serving three months with his regiment in Baltimore, he raised a company of infantry, with which he took part in operations in the Shenandoah valley. His first commission was as captain, and he was soon made colonel of the 114th Pennsylvania Volunteers. For bravery at Fredericksburg he received a Congress medal. At Mine Run his regiment took and held for some time the breast-works defended by Turtle's division of the enemy. Col. Collins was recommended as a brigade commander, but he was attacked with typhoid fever, and was sent to his home. Late in the same year, in the Mine Run campaign, a horse was shot under him. At Spotsylvania, in May, 1864, he performed a service that won the praise of Gen. Grant and gained him for the rank of brigadier-general. Before Petersburg, April 2, 1865, a portion of the 9th Corps having been driven back from the works they had stormed and captured, Gen. Collins, who had been ordered to the spot by Gen. Grant to assist Gen. Parke, rushed to their relief, leading the 114th Pennsylvania Volunteers and 61st Massachusetts in person, retaking all the lost ground and advancing to an inner line of works. This was not accomplished without serious loss of life. Three of his own officers of his own regiment were wounded in the assault. For his conduct on this occasion he was brevetted major-general at the request of Gen. Grant. In June, 1865, he was mustered out, and at once resumed his former practice of law in Philadelphia. He was elected city solicitor in 1871 and 1874, and was for many years a member of the Board of Directors of Public Trusts of Philadelphia. In 1892 he was appointed to the Supreme Court of Pennsylvania. He served in this office till the expiration of Mayor Strong's administration, Jan. 1, 1898. On the advent of the administration of Mayor Wyck, charges were laid against Gen. Collins of carelessness, incompetency, and favoritism as commissioner, but the grand jury promptly dismissed them.

Crooks, Lorrris, manufacturer, born in New Marlboro, Mass., April 6, 1831; died in Winsted, Conn. Aug. 12 1902. He was educated at Norfolk Academy, taught school a few years, and then settled on a farm. In 1858 he was elected to the Connecticut Legislature; served four years in the State Senate; was elected Lieutenant-Governor in 1884 and 1889, and Governor in 1896. He was a director of the State Industrial School for Girls and the State Humane Society, and was a trustee of Hartford Theological Seminary.

Corrigan, Michael Augustine, third Roman Catholic archbishop of the diocese of New York, born in Newark, N. J., Aug. 13, 1839; died in New York City, May 5, 1902. His parents emigrated from the province of Leinster, Ireland, to America early in the last century and settled in Newark. They gave their son a good education, first at St. Mary's College, Wilmington, Del., and then at Mount St. Mary's College, Emmitsburg, Md., where he took the lead in his classes. In his junior year he made a tour of Europe with his sister, and returned to complete his course in 1860. After leaving college he thought for a time of entering the priesthood. He was one
of the 12 theological students with whom the
American college in Rome was opened, after he
had devoted a year to preliminary studies, in-
cluding Italian and Hebrew. He was an indus-
rious student, and won several medals, and his piety and scrupulous
obedience caused his superiors to consent to
his becoming a priest a year before the close of
his theological course. He was ordained on
Sept. 19, 1853. He fin-
ish ed his studies in
1864, obtaining the
degree of D. D. after a
rigorous examination.
In July of that year he
returned to the United
States. Bishop Bayley,
of Newark, appointed
him director of the
ecclesiastical seminary at Seton Hall College,
South Orange, N. J., and made him Professor of
Dogmatic Theology and Sacred Scripture in that
instruction. He was made vice-president of
Seton Hall, and in 1868 became head of the
college. To his other duties were added in 1870
those of administrator and vicar-general of the
diocese of Newark during the absence of Bishop
Bayley at Rome. Early in 1873 Bishop Bayley
was made Archbishop of Baltimore, and in March of
that year Pope Pius IX made Dr. Corrigan
Bishop of Newark, his consecration taking place
on May 4. He retained the presidency of
Seton Hall College until 1876, when he resigned in favor of
the vice-president, his brother, the Rev. James
H. Corrigan. During his episcopate in Newark
he opened a reformatory for boys, a refuge for
women, and an orphan asylum, introduced into
New Jersey the Jesuits and Dominicans, founded
a convent for the Dominican nuns of the Perpet-
ual Adoration, dedicated 42 new churches, and
consecrated the Newark Cathedral. On Sept.
26, 1880, owing to the age and infirmities of
Cardinal McCloskey, Pope Pius IX appointed Bishop
Corrigan as coadjutor for the diocese of New
York, with the title of Archbishop of Petra and
the right of succession. Thus he became the
youngest archbishop of the United States, with the
exception of Archbishop Seabury, as he had
been the youngest bishop. Nearly all the prac-
tical work of the diocese devolved upon him. On
Oct. 25, 1882, Bishop McCloskey, he became Archbishop of New York,
and he was invested with the pallium in March,
1886. Within three months he was confronted
with the most serious controversy that ever dis-
turbed the Catholic community in the United
States. Henry George had been selected by the
working men as candidate for mayor of New
York and began to preach his doctrines, de-
claring private ownership of land unjust. He
was supported by many of the Catholic clergy, and Dr. Edward McGlynn, pastor of St. Stephen's
Church, openly espoused his cause. Archbishop
Corrigan opposed the doctrines, and his vicar-
general declared them to be heretical. Henry
George was defeated, but immediately began
preparations for the State campaign next year. Archbishop Corrigan, in a statement sent out, de-
defended ownership of land as the only means of
securing the rights of property, which he based
on the right of man to the fruits he produces. Mr.
George replied that exclusive ownership would
secure the same right and prevent an unearned
increment being drawn in the form of rent from
those who did not own land. Archbishop Corri-
gan forbade Dr. McGlynn to continue his sub-
port, and complained to Pope Leo that the priest
was attacking the rights of property. Dr. McGlynn was excommunicated, and Henry
George was defeated at the election of 1887. Later, when Archbishop Satolli became papal
legate at Washington, the case was reopened, Dr. McGlynn was restored to his priestly func-
tions, and Archbishop Corrigan gave him a parish
in Newburg. Subsequently a great public recep-
tion was tendered to Archbishop Corrigan in
recognition of his defense of landed interests, in
which not only Catholics but representatives of
New York's wealthy families took part. In the
Cahensy controversy, which became acute in
1890, Archbishop Corrigan refrained from taking
an active part, although he sympathized to some
extent with the wishes of the Austrian noble-
man that emigrants coming to America from
different European countries should have placed over them bishops of their own nationalities.
Cardinal Gibbons and Archbishop Ireland op-
posed the idea, and the Propaganda soon after-
ward condemned it. Archbishop Corrigan wrote
in a letter to Archbishop Henebry that his visits on his behalf in German-speaking immi-
grants, but saying that every one must abide
by the decision of the Propaganda. In the sev-
eenteen years of his episcopate the Catholic popu-
lation of the archdiocese of New York grew to be
about a million and a half. It includes the coun-
ties of New York, Westchester, Putnam, Dutch-
ess, Ulster, Sullivan and Rockland, and Rich-
mond in the State of New York, and the Bahamas,
Islands, to which the archbishop made periodic
visits. On Feb. 23, 1902, while the archbishop
was going from his house to the cathedral ad-
joining, he fell into an excavation under the
pathway which had not been sufficiently boarded
over, and received a severe shock, from which
he did not recover for several weeks. In April
he went to Washington to attend a meeting of
the Catholic University, and took a severe cold
on the trip, which developed into pneumonia on
his return and caused his death. He was suc-
ceeded by the Right Rev. John M. Farley, who
had been auxiliary bishop since 1896.
Cory, Florence Elizabeth, designer, born in
Syracuse, N. Y.; died in New York city, March 20,
1902. In 1877 she took up the art of designing,
became the first practical textile designer among
American women, and founded and conducted the
School of Design of the American Art Union for
Women in New York city. She was led to engage in textile designing by the sight of some
costly but inartistic carpets, and was aided in her early efforts by the president of a carpet
company in Connecticut and by the officials of
other representative factories. She learned that
tasteful designs were often rejected because they
could not be woven, and that there was a limita-
tion to machinery. This led her to study the
mechanical part of the industry, and in time she
became a successful designer not only of carpets,
but of wall-paper and of silk and woolen goods.
Cowie, George, naval officer, born in Ireland
in 1846; died in Rahway, N. J., May 23, 1902.
He was appointed an acting third assistant en-
ing in the navy May 23, 1864; commissioned
second assistant naval officer Dec. 3, 1876;
and promoted assistant engineer Dec. 3, 1876;
chief engineer Sept. 12, 1892; lieutenant-commander
March 2, 1890; commander July 1, 1899; and cap-
tain Feb. 11, 1900. He received a number of
letters on the retired list of captains for eminent
and conspicuous conduct in battle. He partici-
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CROCKER, Uriel Haskell, lawyer, born in Boston, Mass., Dec. 4, 1832; died there, March 8, 1902. He was graduated at Harvard University in 1853, studied at Harvard Law School, was admitted to the bar in 1856, and was in active practise the remainder of his life. He was a member of the Common Council in 1874-78, and was appointed one of the commissioners to revise the statutes of Massachusetts in 1881. Among his publications were Notes on the Public statutes of Massachusetts; Notes on Common Form; and Notes on the Revised Laws. He was prominent in charitable and philanthropic work, and was connected officially with several financial and public institutions.

Cummings, Amos Jay, journalist, born in Conkling, N. Y., May 15, 1841; died in Baltimore, Md., May 2, 1902. When a boy he entered his father's printing-office, but he soon afterward set out for himself, and for four years worked as a compositor in the West and South. Later he worked in the New York Tribune office. When the Civil war broke out he enlisted in the volunteer service. He participated in many battles, and in 1863 was compelled by illness to return to New York, where he arrived in time to take part in the defense of the Tribune office when it was mobbed by the rioters in July. Subsequently he became successively night editor, city editor, and political editor of the Tribune, and still later he was on the staff of the New York Express and the Sun successively. He was elected to Congress in 1887, and retained his seat until his death. His publications include Sayings of Washington and Siska Letters.

Cutler, Henry Stephen, musician, born in Boston, Mass., Oct. 7, 1824; died in Swampscott, Mass., Dec. 5, 1902. He was organist and choirmaster of Trinity Episcopal Church, New York city, in 1860-68. When King Edward VII, then Prince of Wales, visited the United States in 1860, Dr. Cutler robed the boys and men in the choir according to the custom of the English Church, out of respect to the prince. The idea was at once taken up in several Episcopal churches, and vested choirs soon became general. In 1864 Columbia College conferred on him the degree of doctor of music. His musical compositions were numerous. He compiled The Psalmist, with Chants (1858); Trinity Psalter (1863); and Trinity Anthems (1868). The musical setting of the hymn The Son of God goes forth to War is perhaps the best known of any American tune in the Hymnal.

Davidson, Andrew, military officer, born in Roxburghshire, Scotland, Feb. 12, 1840; died in Bath, N. Y., Nov. 10, 1902. He came to the United States with his parents, who settled in Ontonagon County, N. Y., in 1848. The civil war broke out he enlisted as a private. Later he was commissioned a 1st lieutenant in the 30th United States Colored Infantry, of which he subsequently became adjutant. At the battle of Salem Church he was shot through both legs; at Hatcher's Run was wounded in the hand; and at Petersburg in the face. After the war he studied law and practised till 1871, when he purchased the Onaga Republican, which he was then editing. He was a State Senator in 1884-'85; First Deputy Commissioner of Pensions under President Harrison; Deputy Secretary of State of New York in 1894; then Deputy State Treasurer; and afterward commandant of the New York State Soldiers' and Sailors' Home in Bath. Col. Davidson received the congressional medal of honor.

Davis, Noah, jurist, born in Hanoverhill, N. H., Sept. 10, 1818; died in New York city, March 20, 1902. He studied law, was admitted to the bar in 1841, and practised in Gaines, N. Y., and Buffalo, N. Y. In 1844 he entered into partnership with Sanford E. Church, with whom he practised in Albion, N. Y., till 1857, when he was made a justice of the State Supreme Court. He was twice re-elected to this office, but in 1888 he resigned, having been elected to Congress, where he served from March 4, 1869, till July 20, 1870, when President Grant appointed him United States Attorney for the Southern District of New York. He resigned this office Dec. 31, 1872, on being elected justice of the Supreme Court of New York, where he served till December, 1887. A short time after Justice Davis took his seat on the bench the trial of William M. Tweed for malfeasance in office was held before him. He sentenced Tweed to a year's imprisonment for each of the 12 counts of the indictment; but two years later the Court of Appeals decided that this cumulative sentence was contrary to law. He resumed private practise in New York city as head of the firm of Davis & Marsh till 1901, when he retired.

Dazian, Wolf, theatrical costumer, born in Wurzburg, Bavaria, in 1816; died in New York, Jan. 10, 1902. He came to America in 1835, and in 1842 he founded the first and the most important costume establishment in this country. He manufactured and sold imported theatrical and fancy dresses, and built up a large and profitable business. He furnished the costumes for the most notable dramatic and operatic productions of his time, chief among which was the first spectacular play presented in this country, The Black Crook, which was played at Niblo's Garden, New York city. He was the chief costumer for the Metropolitan Opera House. New York, in all its great productions of grand opera that required brilliant accessories of dressing and drapery.

Dean, John Ward, genealogist, born in Wiscasset, Me., March 13, 1815; died in Medford, Mass., Jan. 22, 1902. He was educated in the public schools of Portland, and, after learning the bookbinder's trade, removed to Boston, presently setting up in business in Providence, but subsequently returning to Boston, where he conducted a bookbinding establishment till in 1872 he was appointed librarian of the New England Historic Genealogical Society, in which office he continued, save from 1889 to 1903, until the time of his death. He had become a member of that society in 1850, and his wide knowledge of New England family local history was thereafter so constantly extending that he became almost, if not quite, the chief authority in such matters.
His acquaintance with the literature and persons of the seventeenth century in New England was extremely thorough, and, while he had few of the graces of style, he was always clear in his presentation of a theme and discriminating in his choice of material. Besides frequent contributions to the New England Historical and Genealogical Register, of which he was editor in 1876–1892, Mr. Dean was the author of A Memoir of the Rev. Nathanial Ward (1868) and A Memoir of Rev. Michael Wigglesworth (1871).

Depue, David Ayres, jurist, born in Mount Bethlehem, Pa., Oct. 27, 1826; died in Newark, N.J., April 3, 1902. He was graduated at Princeton University in 1846. In 1849 he was admitted to the bar and began practice in Belvidere, N.J., where he remained till 1866, when he was appointed a judge of the Supreme Court, where he remained by successive appointments till 1900. On May 1, 1900, he was commissioned Chief Justice of the Supreme Court of New Jersey, and he held that office till Nov. 10, 1901, when he resigned after thirty-five years of service.

Dickerstein, Lysander, Egyptologist, born in Bridgewater, Mass., in 1836; died in Boston, Mass., Dec. 13, 1902. He was graduated at Brown University in 1851, and at Andover Theological Seminary in 1856; was ordained in the Congregational Church in 1858; held pastorates in Massachusetts and New Hampshire till 1869, and then spent two years in the University of Berlin. In 1873 he was called to a church in Quincy, Ill., and later held charges in Gilroy and Chico, Cal. Since 1878 he had been a professor in Boston, New York, and elsewhere. He spent much time in travel, especially as an antiquary, and became well versed in Egyptology. His publications include The Egyptian Deities (1885); The History of the Bible (1889); The Fayum (1892); and Mariette-Bey's Monument of Upper Egypt (1900).

Drummond, Josiah Hayden, jurist, born in Maine in 1827; died in Portland, Me., Oct. 25, 1902. He was admitted to the bar and practised in Waterville till 1860, when he removed to Portland. He served in both houses of the State Legislature; was Attorney-General of the State in 1860–64; a delegate to the Republican National Convention in 1864, 1876, and 1884; and a director of the Maine Central Railroad from 1865 till his death. His publications included Maine Masonic Text-book for the Use of Lodges; History of Masonic Jurisprudence; and the article on Masonry in the Universal Cyclopaedia and Atlas. Earl Robert, jurist, born in Herkimer, N.Y., Sept. 10, 1824; died there, Dec. 2, 1902. He was graduated at Union College; was principal of Herkimer Academy two years, during which time he studied law; and was admitted to the bar in 1848 in his native town, where he practised till 1870. He edited the Herkimer Democrat several years, and was supervisor of Herkimer County in 1849 and 1850. He was a justice of the peace of the same county in 1856–60; judge of the old Court of Appeals in 1869–70, and then its chief justice.

He was a member of the Commission of Appeals till July, 1875. He was appointed to the Court of Appeals in the following year, which post he held till he retired in 1895. He was a founder and later president of the Herkimer County Historical society, and with his wife founded the Herkimer Free Library and gave it property valued at $30,000.

Eggleson, Edward, author, born in Vevay, Ind., Dec. 10, 1837; died at Joshua's Rock, Lake George, N.Y., Sept. 3, 1902. His father, who was a Virginian and a lawyer, died when Edward was nine years old. The son was prevented by delicate health from pursuing a vocation. For private study he acquired a liberal education. He spent four months in Minnesota, in 1856, for the benefit of his health, and then returned to Indiana and became a schoolteacher. Six months later he went again to Minnesota, became agent for the Bible Society, and was pastor of churches successively in St. Peters, St. F.'s, and home. In 1866, he moved to Evanston, Ill., and for six years was associate editor of The Little Corporal, a popular juvenile periodical, of which Emily Huntington Miller was the chief editor. Mr. Eggleson had previously contributed to this publication a series entitled Round-Table Stories. Later he edited the Sunday-School Teacher in Chicago, which under his management increased its circulation from 5,000 to 55,000, and at the same time he became popular as an organizer of Sunday-school teachers' institutes and a speaker at their conventions. He also became a regular contributor to the New York Inquirer, using the pen-name Penholder. In 1870 he became literary editor of that paper, and for a short time he was superintending editor. In 1871 he became chief editor of the newly established Health and Home, published in New York. In this periodical first appeared his story The Hoosier Schoolmaster, which was immediately popular, appeared in book form in 1871, and was translated into several European languages, and still has a steady sale in the United States. This was followed by The End of the World (1872); The Mystery of Metropolisville (1873); The Circuit Rider (1874); The Schoolmaster's Stories (1874); Roxy (1878); The Hoosier Schoolboy (1883); Queer Stories (1884); The Graysones (1888); The Faith Doctor (1891); and Duffies (1893). He had published Mr. Blake's Walking-Stick in 1899. He looked upon his works of fiction as little more than so much work to earn money for historical investigation, since his ambition was the writing of history, for which he made preparation in costly research and minute study. He published a History of the United States and its People, for the use of schools (1882); Our Indian History and the United States and Its People (1888); a First Book in American History (1889); and two volumes of an elaborate history of our country, entitled The Beginners of a Nation (1895) and The Transit of Civilization (1900). He edited Christ in Art (1875) and Christ in Literature (1873).

Dr. Eggleson, who had received honorary degrees from several colleges, was a brilliant talker and a man of fine sympathies. When he returned from Ireland, whither he had been sent by a metropolitan newspaper to investigate the famine, he remarked, "I pocketed my pocket when I saw the condition of those poor people." For portrait, see frontispiece.
ELLIS, Howard, lawyer, born in Elkton, Md., July 6, 1834; died in New York city, Dec. 24, 1905. He was a bank clerk in Philadelphia, and later studied law. At the outbreak of the civil war he, with his four brothers, assisted in raising the 6th Pennsylvania Cav- alry. After the war he labored for a time in New York, when he retired with the rank of captain. He then removed to New York, where he practised his profession. In 1875 he began the publication of the New York Law Journal of固定物; he became editor of That Law and Equity Reporter, with which he remained for fourteen years, when he resigned to become United States counsel-general in Holland. He was also a counsel for several business concerns and wrote on legal subjects, his last work in this line being The Case Law.

EYTINGE, William (William Emerson Redmond), familiarly known as "Billy" Emerson, actor and minstrel performer, born in Belfast, Ireland, in 1847; died in Boston, Mass., Feb. 22, 1902. He was a school boy in the United States when he was a year old, and made his first appearance as a "burnt-cork" negro minstrel when he was a lad of eleven in the Sweeney Minstrel Company. As he grew up he became a favorite with the public. He went over the country for his sweet singing and graceful dancing. He commanded the highest salary ever paid to any minstrel performer, at one time receiving $1,000 a week. He sang with Haverly's Minstrels for a long time, and was once in partnership with Ben Cotton, one of the noted minstrel singers in the palmy days of that form of amusement. Emerson went to San Francisco, and for ten years managed a company of his own. He made three very successful trips to Australia. In recent years he appeared as a monologist in vaudeville entertainments. He made a last appearance in 1901 at the Boston Theater in May, 1901, with West's Minstrel Company.

FIELD, Thomas Dunn, author, physician, and lawyer, born in Philadelphia, Pa., June 23, 1819; died in Newark, N. J., April 1, 1902. He was graduated at the University of Pennsylvania in 1839; but he immediately took up the study of law and was admitted to the bar in Philadelphia in 1842. His tastes had been strongly inclined toward literature from his early youth, and in 1844 he became editor of a daily paper in York, Pa.; in 1847 he began the publication of a literary magazine, The Aristides, of which only a single volume was issued. In 1843 he was asked to contribute a poem to the New York Mirror, and in the issue of Sept. 25 appeared Ben Bolt, the poem that made him famous. It won wide admiration in this country, and was soon stolen by English publishers and announced in England as the work of a British poet. It set the familiar air that accompanies it by Nelson Kneass in 1846, and was sung by him in theaters all over the Union, and during many years the song dropped out of memory, but interest in it was revived by its use in George Du Maurier's novel Trilby. Soon after the publication of Ben Bolt, President Tyler offered a diplomatic post to the author, which was declined. Dr. English settled in New Jersey in 1859, making it his permanent home. He served in the New Jersey Legislature in 1863 and 1865, and in the Assembly and Fifty-third Congresses as a Democrat. In 1876 he received the degree of doctor of laws from William and Mary College, Virginia. Among his writings, besides numerous poems and several plays and novels, are Walter Woufe (1842),

Ambrose Feoit, or the Peer and the Painter (1864); American Ballads (1885); Book of Battle Lyrics, and Jacob and Miss Mansfield (1891). For a portrait of Dr. English, see frontispiece.

ETYTINGE, Harry, actor, born in Philadelphia, Pa., Oct. 30, 1822; died in Nyack, N. Y., Sept. 18, 1902. He made his first appearance in 1843, at the age of twenty-first year. Having a great liking for the sea and belonging to a wealthy family, he had built a merchant vessel and commanded it on a voyage to Holland at the age of eighteen. His tastes were varied and his talents versatile; besides being a fine actor, he was an artist of much ability and a ship-builder, and he spoke several languages with perfect fluency. In the early days of his theatrical life he played with Junius Brutus Booth, Edwin Forrest, Charlotte Cushman, Edwin Booth, and other famous actors. He appeared at times in both tragedy and comedy, and managed many different theaters and companies in various cities of the United States. He played important roles in all the Shakespearean dramas in the early days of his stage career, and in later years supported Margaret Mather for several seasons, besides other stars. He retired from public life in 1893. Mr. Eyttinge was a highly cultivated man, of fine presence and distinguished manner, an accomplished linguist, and a favorite both professionally and socially.

Feeshan, Patrick Augustine, clergyman, born in Tipperary, Ireland, Aug. 29, 1829; died in Chicago, Ill., July 12, 1902. He was graduated at Maynook College in 1852, and soon afterward came to the United States. He was ordained in the Roman Catholic Church in Illinois; appointed president of the College of the Immaculate Conception in St. Louis, and was consecrated Bishop of Nashville in 1863. In 1880 he was chosen first Archbishop of Chicago. During his administration he created 9 new parishes in Chicago; founded a college of the Christian Brothers, a convent and refuge of Sisters of the Good Shepherd, and 2 orphan asylums; and introduced into his dio- cese the Sisters of Mercy, the Sisters of Charity, and the Sisters of St. Joseph, all of whom he placed in charge of academies and parochial schools.

Fenger, Christian, surgeon, born in Copenhagen, Denmark, Nov. 3, 1840; died in Chicago, Ill., March 7, 1902. He was graduated at the University of Copenhagen in 1864. He practised medicine in Copenhagen till the Franco-Prussian War broke out, when he became a surgeon in the Red Cross Ambulance Corps and served till the close of the war. He then lectured for a time in the University of Copenhagen; went to Egypt as a member of the Sanitary Council; and later was appointed surgeon of Khalifa Quarter, Cairo. In 1877 he returned to Chicago, where he resided until his death. In 1880 he became curator of Rush Medical College Museum, and in 1884 Professor of Clinical Surgery at the College of Physicians and Surgeons, going to the similar chair in Chicago Medical College in 1893, and in Rush Medical College in 1899. He was president of the Chicago Medical Society and vice-president of the American Association of Surgeons; and at different times was surgeon to the Cook County, Presbyterian, Tabitha, Norwegian, Passavant Memorial, Lutheran, German, and other hospitals. He contributed more than 80 papers on surgical subjects to American periodicals.

Fernald, Orlando Marcellus, educator, born about 1835. He was educated at the Phillips Academy, and was instructor there several years.
He was graduated at Harvard University in 1864. In 1865 he was appointed principal of Exeter High School; and then became classical master of the Springfield High School. In 1872 he became Professor of Greek at Williams College, where he remained until his death. He edited Selections from the Greek Historians.

Ferris, Andrew Curtis, inventor, born in Mamaroneck, N. Y., about 1818; died in the Catskill mountains, New York, Aug. 1, 1902. In 1849 he went to the California gold-diggings in command of 200 armed men. He was the first to refine petroleum so that it could be burned as an illuminating oil without smoke.

Floyd-Jones, De Lancey, military officer, born in Queens County, New York, Jan. 20, 1820; died in New York city, Jan. 19, 1902. He was graduated at West Point, commissioned 2d lieutenant in the 7th Infantry July 1, 1844; brevetted 1st lieutenant, Jan. 1, 1845; promoted captain, July 31, 1854; major of the 11th Infantry, Mar. 14, 1861, lieutenant-colonel, Aug. 1, 1863; colonel, June 22, 1867; and was retired at his own request, March 20, 1879. He served with distinction through the Mexican War, and with the siege of Vera Cruz, in the capture of the city of Mexico, and in the battles of Cerro Gordo and Molino del Rey. After the war he was on frontier duty and in expeditions against hostile Indians till the civil war broke out, when, as major of the 11th Infantry, he served in the battles of Yorktown, Gaines's Mill, and Malvern Hill. He was also engaged in the battles of Manassas, Antietam, Chancellorville, and Gettysburg. At the close of the war he was again assigned to service against the Indians. After his retirement he devoted much of his time to literature. He was the author of Letters from the Far West.

Ford, Paul Leicester, author, born in Brooklyn, N. Y., in 1865; died in New York city, May 8, 1902. At about the age of eight he met with an accident that injured his spine and dwarfed his physical growth. But he had a naturally brilliant mind, which was developed by a love of study and lifelong command of books and literature. He was a great reader and taught his students in the house of his father, Gordon L. Ford, which contained one of the finest private libraries in the metropolis. He was a skilful bibliographer, and made a catalog of the books he read in the first year that James Lorimer Graham bequeathed to the Century Association. Mr. Ford edited Thomas Jefferson's writings (10 volumes), John Dickinson's writings (3 volumes), and other works relating to American history, and wrote The True George Washington and The Many-Sided Franklin. In fiction he produced The Honorable Peter Stirling, The Great K. & A. Train-Robbery, The Story of an Untold Love, Tattle-Tales of Cupid, Wanted—a Match-Maker, Wanted—a Chaperone, and Janice Meredith. The last-named, a story of the time of the Revolution, had a remarkable success, the sale reaching the hundreds of thousands. Mr. Ford married, in 1900, Miss Mary Grace Kidder, of Brooklyn, and built a beautiful home in New York. He had inherited wealth from his father and had received large returns from the sale of his books. One of his brothers, who had been disinheritied because of his devotion to athletics, overheard the injustice done him, until he became undoubtedly a monomaniac if not completely insane. In this condition he visited Paul in his library and demanded a large sum of money; when this was refused, or when it appeared that Paul would refuse, he shot Paul through the breast, and then shot himself, dying instantly. Paul died in half an hour.

Foster, Rebecca B. (popularly known as the "Toms Angel"), benefactor, born about 1842; died in New York city, Feb. 21, 1902. In 1865 she married Gen. John A. Foster, who died in 1900, and after his death she undertook the humane work in the Tombs (the city prison in New York) that earned for her the title of the "Toms Angel." She worked wholly on independent lines, representing no church, society, or organization, and rendered the prisoners under her care incalculable benefits, especially the women. She was greatly esteemed by the judges, lawyers, reporters, and all others who had business in the Criminal Courts building. Mrs. Foster was one of the victims of the Park Avenue Hotel disaster.

Fowler, Joseph Smith, lawyer, born in Steubenville, Ohio, Aug. 31, 1820; died in Washington, D. C., April 1, 1902. He was graduated at Franklin College, Olinda, in 1843, and for four years Professor of Mathematics there. He then removed to Kentucky, where he was admitted to the bar, and later to Tennessee, where he practiced until the outbreak of the civil war. He removed to Springfield, Ill., in consequence of Jefferson Davis's proclamation ordering all supporters of the Union to leave the Southern States. In 1862 he returned to Tennessee, and was made Comptroller of the State; took an active part in reconstructing the State government in the interest of the Union; was elected United States Senator in 1865, but was not admitted to his seat till July, 1866; and was one of the 7 Republicans who voted against the impeachment of President Johnson. He practised in Washington, D. C., from 1871 till his death.

Frémont, Jessie Benton, author, born in Virginia in 1824; died in Los Angeles, Cal., Dec. 27, 1902. She was the daughter of United States Senator Thomas H. Benton, of Missouri. She removed to Washington at the age of fourteen and was educated at Georgetown Seminary. In Washington she became acquainted with John Charles Frémont, a lieutenant in the corps of topographical engineers. She was but fifteen years old, and her parents objected to her receiving the addresses of the young lieutenant, and when the latter was assigned to a Government exploration survey one December day that lovers believed that Senator Benton had obtained the order for the purpose of separating them. The survey was executed rapidly, and on Frémont's return the couple eloped, and were married, Oct. 19, 1841. After a reconciliation with her parents, Mrs. Frémont returned to her father's home, where she remained while her husband was on one of his famous expeditions to explore the Rocky mountains. They removed to California a few years later, and returned to Washington in 1856, when Mr. Frémont was elected to represent California in Congress. From the close of his senatorial term till his unsuccessful presidential campaign against James Buchanan, in 1856, they resided in St. Louis. After Gen. Frémont's death (1890) Mrs. Frémont wrote much for the newspapers and magazines. She was the author of The Story of the Guard; A Year of American Travel; Far West Sketches; Souvenirs of Mr. Frémont; The Will and The Way Stories.

French, Thomas Henry, publisher of plays and theater manager, born in New York City, Dec. 7, 1848; died a large sum in large sums of money; when this was refused, or when it appeared that Paul would refuse, he shot Paul through the breast, and in 1870 he became a partner in the play-pub.
lishing business of his father, the firm being known as Samuel French & Son. In 1871 the elder French died, and a branch house in London, leaving his son at the head of the New York office. The first play of great importance that the firm published in this country was A Celebrated Case, which was rented to the manager of the Union Square Theater at a royalty of 50 per cent. This venture proved very profitable, Mr. French set about securing American rights to other successful foreign plays, and in the course of a few years the firm published in the United States scores of the best European dramas that have been seen in this country. Mr. French's managerial experience began in 1873, when he produced White Lies, a dramatization of Wilkie Collins's novel of that name, at the old Olympic Theater, New York. In 1877 he undertook the management of Mr. and Mrs. J. C. Williamson, in Struck Oil, which was highly successful. In 1878 he took the entire Union Square Theater Company on tour, playing the Samuel drama Mother and Son, which had made a great hit in New York. In 1883 he took the Wallack's Theater Company to San Francisco with The Silver King. In 1889 Mr. French produced Liliom, by Ferenc Merse, which made a tremendous hit, and, in company with Frank Sanger, he soon had four companies playing this piece in different parts of the country. In 1892 Mr. French managed the Bay City Opera Company, and it was regarded as the finest light-opera organization that ever had been seen in the United States. At different times he managed the Union Square, the West Side, the Grand Opera House, and the Grand Opera-House, and he built and managed the new American Theater in West Forty-second Street, New York. The last dramatic production under his direction was the Hotel Topy Tury, at the Herald Square Theater in 1898.

Fries, Wulf Christian Tullius, violoncellist, born in Germany, 1825; died in Roxbury, Mass., April 29, 1902. He began his musical career as a member of the orchestra in the theater of Bergen. He came to the United States with Ole Bull, and played the violoncello in the Ole Bull Concert Company in its tours throughout the country. He appeared also in concerts with Rubinstein, the pianist; and after he had settled permanently in the United States he founded the Mendelssohn Quintet Club of Boston.

Frost, William Henry, author, born in North Providence, R. I., March 18, 1863; died in New York city, March 21, 1902. He was graduated at Brown University in 1886, and became connected with the New York Tribune as a general reporter in 1887, and as dramatic news reporter in 1889. He was the author of The Wagner Story-Book (1894); The Court of King Arthur (1896); The Knights of the Round Table (1897); and Fairies and Folk of Ireland (1900).

Frothingham, Ellen, translator, born in Boston, Mass., March 25, 1835; died there, March 11, 1902. She was a daughter of the Rev. Nathaniel Frothingham. She inherited the literary tastes of her father, and early turned her attention to German literature. Her first published work being a translation of Lessing's Nathan der Weise (1868), usually considered the finest English version of Lessing's great drama. This was followed by translations of Goethe's Hermann und Dorothea (1870); Lessing's Laokoon (1874); Grillparzer's Sappho (1876); and from Marie-Herbert, Théme de Thérese (1890).

Garrard, Thomas, clergyman, born in Hartford, Conn., June 3, 1822; died in New York city, Aug. 17, 1902. He was a son of the Rev. Thomas Hopkins Gallaudet, who introduced into the United States the systematic education of deaf-mutes, and brother of Edward Miner Gallaudet, through whose instrumentality the National Deaf-Mute College in Washington, D. C., was established, of which he became president. He was graduated at Trinity College in 1842; taught in the New York Institution for the Deaf and Dumb from 1843-58; and in the meantime was ordained in the Protestant Episcopal Church. In 1859 he founded St. Ann's Church for Deaf-Mutes, services being held in a room in the old building of the New York University, and later in the hall of the New York Historical Society till 1858, when a church and a rectory were secured on Eighteenth Street, near Fifth Avenue; and in 1884 this church was consolidated with St. Matthew's Church. In 1892 he resigned his active pastorate to enter into broader missionary work, and became pastor emeritus. Besides his other duties he accepted the pastorate of the Sisterhood of the Good Shepherd in 1869, and the chaplaincy of the Midnight Mission in 1871. He founded the Church Mission for Deaf-Mutes in 1872, and was its manager till his death. This society was the pioneer of church work among deaf-mutes throughout the country and has established the Gallaudet Home for Aged and Infirm Deaf-Mutes.

Gardiner, Charles Randolph, theatrical manager and agent, died in Milford, Del., Jan. 1, 1902. He opened the first theatrical booking agency in New York city, and managed it successfully for many years, introducing to the public numerous players who are now well known. He was the originator of various forms of theatrical amusement, the most profitable of which was the farce-comedy, his own play, The Tragedians of Kalamazoo, being the first entertainment of this kind ever seen on the stage. He was the first to introduce music and specialties in Uncle Tom's Cabin, and he also organized the first regular company of traveling variety performers. Probably the most notable of Mr. Gardiner's theatrical achievements was the building of the first theater in Chicago after the great fire of 1871. He went to that city very soon after the calamity, and found many thousands of people with no place of amusement. He announced that he would have a new theater ready in one month, and in thirty-three days an attractive playhouse, 70 x 100 feet in dimensions, completely finished and handsomely furnished, was built and opened to the public, Lawrence Barrett giving the first performance. A few years ago Mr. Gardiner retired from theatrical life, and he was at the head of a large mercantile business in Milford up to the time of his death.

Garrard, Theophilus Toulmin, military officer, born in Manchester, Ky., June 7, 1812; died there March 14, 1902. He was a member of the Kentucky Legislature in 1843-'44, served in the Mexican War as captain of the 16th United
States Infantry, and on the discovery of gold went to California in 1849. He was elected a member of the California Senate in 1857 and in 1861, and at the outbreak of the civil war entered the National service as colonel of 34 Kentucky Infantry. He was promoted brigadier-general in March, 1864, and was mustered out of the service April 4 following. After the war he engaged in farming and the manufacture of salt.

James Ethan Allen, inventor, born in Raphine, Va.; died there, Nov. 25, 1902. He lived in the South till the civil war broke out, when he settled in New York city, where, with Charles H. Wilcox, he formed the firm of Wilcox & Gibbs, manufacturers of the sewing-machine bearing its name. He invented the controlling principle of the single and double thread in sewing-machines, and other devices. He returned to his native town in 1892, where he did much to develop the industrial life there and in the Shenandoah valley.

Godkin, Edwin Lawrence, journalist, born in Maryville, Ireland, Oct. 2, 1831; died in Drikham, England, May 20, 1902. He was graduated at Queen's College, Belfast, in 1851, and was a war correspondent for the London News in Russia and Turkey during the Crimean War. After the war he came to the United States; settled in New York city; studied law, and in 1859 was admitted to the bar. He was on the editorial staff of the New York Times in Paris in 1854-56, and during that period again served the London News as correspondent in the civil war. In 1865 he established and became editor of the Nation, which was made the weekly issue of the Evening Post in 1881, and he then became one of the editors and proprietors of the joint publication, and remained as such until 1892, when he retired. In 1895 Mayor Strong appointed him a member of the Civil-Services Commission, on which he served till Mayor Van Wyck's election. He was the author of a History of Hungary; Reflections and Comments; Problems of Democracy; and Unforeseen Tendencies of Democracy.

Goshorn, Alfred Traber, manufacturer, born in Cincinnati, Ohio, in 1834; died there, Feb. 19, 1899. The family gabro was at Marietta College in 1854, and two years later was admitted to the bar, and began practise in Cincinnati. On becoming proprietor of an extensive white-lead plant in Cincinnati, he retired from his profession to engage in manufacturing. In 1870 he became president of the Cincinnati Industrial Exhibition, which proved so successful that it has since been repeated. His administrative and executive abilities in this field led to his appointment as director-general of the Centennial Exposition at Philadelphia in 1876. Mr. Goshorn was one of the organizers in 1861 of the Cincinnati Museum Association, and till his death was its director.

Goucher, Mary C., philanthropist, died in Alto Dale, Md., Dec. 19, 1902. She was the daughter of Dr. John Fisher. In early life she became interested in educational and church work, and was conspicuous as an advocate of the education of women. She married the Rev. John F. Goucher, inherited a fortune of more than $1,000,000, and applied much of her time and money in assisting her husband in establishing the Woman's College of Baltimore, which through her aid has become one of the most important educational institutions under the auspices of the Methodist Episcopal Church. She, with her husband, established nearly 100 Methodist mission stations in India.

Grant, Julia Dent, born on her father's farm in Whitehaven, 10 miles southeast of St. Louis, Feb. 16, 1826; died in Washington, D. C., Dec. 14, 1902. Her father was Judge Dent, a practitioner at the St. Louis bar. Julia was the fifth child and the eldest daughter. She received her education in St. Louis. Her brother was a classmate of Ulysses S. Grant while he was a cadet at West Point. He saved his (Dent's) life while fighting in the Mexican War. Grant married her Aug. 22, 1848, at the Dent residence. The young officer was then assigned to Sackett's Harbor, N. Y., and six months later was transferred to Detroit. Mrs. Grant accompanied him to both places. In 1854 Capt. Grant resigned from the army, when his father-in-law gave him a 60-acre farm. The couple were unable to get a living out of it, however, and Grant found employment in a real-estate office in St. Louis. In the spring of 1860 he went to work in his father's leather store in Galena and Tk. The close of the civil war Grant was made commanding general of the army, and, with Mrs. Grant, settled in Washington. After this came his election to the presidency, and Mrs. Grant became the mistress of the White House, where she presided with dignity and tact. The eight years' régime of the Grants at the White House was characterized by social functions of great excellence. Subsequently they made a trip around the world. Some of the greatest honors ever shown to an American woman were showered on Mrs. Grant, and she and her husband received many rare and costly gifts. After the death of her husband Mrs. Grant's life was remarkably quiet, much of it being spent in Washington. The most noticeable incident in the latter part of her life was her decision in regard to $150,000 borrowed by her husband from William H. Vanderbilt. This was in 1894, three days before the failure of the firm of Grant & Warriette May 25, 1893. Grant had loaned the money, and the loan could be returned by him in a day or two, but his affairs changed radically in a very short time, and when Mr. Vanderbilt demanded payment he was given the place of the second mortgage. Vanderbilt began a suit, and Gen. Grant permitted judgment to be entered against him. He and Mrs. Grant, however, sent to Mr. Vanderbilt the deeds of their property, which were sufficient to cover the debt of honor. Mr. Vanderbilt thereupon wrote to Mrs. Grant, presenting to her, as her separate estate, the debt and judgment he held against Gen. Grant's real estate and the household furniture and ornaments. In reply Mrs. Grant declined the proposition, excepting the trust that applied to articles to go to the Government. Gen. Grant acquiesced in the plan after it was modified considerably, but Mrs. Grant, after first agreeing with him, withdrew her consent. During Gen. Grant's last illness he was his constant attendant. After her husband's death Congress voted her a life pension of $5,000 per annum. In accordance with an agreement concerning the permanent resting-place of Gen. Grant's remains, those of his widow were laid beside his own in a sarcophagus of the mausoleum in Riverside Park, New York city.

Gray, Ada (Mrs. Charles F. Tingay), actress, born in Oneonta, N. Y., in 1834; died in Fordham, N. Y., Aug. 27, 1902. She made her first appearance when she was only ten years old, and at fifteen she played Juliet in Rochester, N. Y.
A little later she became a member of the Boston Museum Company, appearing chieftly in spectacle plays of that Society. After this she traveled through New England, and then became leading lady of a stock company in St. Louis, Mo. While occupying this place she played in support of Edwin Forrest, as Amina Bone, and other noted actors. After a few seasons in the St. Louis company she appeared in New Orleans, starring in Lucrezia Borgia, and was very successful. In 1845 Miss Gray obtained the play called East Lynne, a dramatization of Mrs. Henry Wood’s once popular novel, and appeared in the rôle of Lady Isabel, in which she scored a tremendous success, and played it exclusively thereafter for twenty years. According to her own recollection, she acted this rôle, in the United States and in England, about 5,000 times. In 1872 Miss Gray married Charles A. Watkins, of Albany, N. Y., and after his death, in 1891, she married (1894) Charles F. Tingay, an English actor belonging to Henry Irving’s Lyceum Theater Company, of London, England.

Gray, Horace, jurist, born in Boston, Mass., March 24, 1828; died in Nahant, Mass., Sept. 15, 1902. He was graduated at Harvard University in 1844, and entered the law. In 1845 he was admitted to the Massachusetts bar in 1851, and practiced in that State till 1854, when he was appointed reporter of the Supreme Court of Massachusetts. In 1864 he was appointed an associate justice of the Supreme Court of Massachusetts, and in 1873 became chief justice. He held the latter post till 1882, when he was appointed an associate justice of the Supreme Court of the United States, from which post he retired a few weeks before his death.

Green, Francis Matthews, naval officer, born in Boston, Mass., Feb. 23, 1835; died in Albany, N. Y., Dec. 19, 1902. He was educated in Boston, and after a short business life he became a seaman. In 1861 he was appointed acting master in the volunteer navy. He was promoted to acting volunteer, lieutenant, April 21, 1864; transferred to the regular navy and commissioned lieutenant-commander, Dec. 18, 1866, and commissioned commander, July 7, 1876, and was retired, Feb. 23, 1897. At the beginning of the civil war he was attached to the sloop Vincennes of the Western Gulf blockading squadron; later he served on the Arkansas and Gulf blockading squadrons, at times in command of steamers on special service. He commanded the steamer Boxer at the capture of Fort Fisher, and also took part in severe fighting elsewhere. From 1873 to 1883 he was connected with five expeditions for determining exact latitudes and longitudes in various parts of the world; and from that time till his retirement he served in navy-yards, as commander of the Pennsylvania schoolship Saratoga, and as inspector of lighthouses along the coasts of Massachusetts. Commander Green was author of The Navigator of the Caribbean Sea (1877); Telegraphic Determination of Longitudes (1878, 1880, 1883); and List of Geographical Positions (1883).

Griffin, Simon Geddes, military officer. born in Nelson, N. H., Aug. 9, 1824; died in Keene, N. H., Jan. 14, 1902. He was a teacher for several years; was admitted to the bar in 1860, and began practice in Keene. In 1861 he was drafted into the 2d New Hampshire Regiment, with which he took part in the first battle of Bull Run. He was promoted captain in October, 1861, and became colonel in April following. He took part in the battles of Manassas, Antietam, and Fredericksburg; was placed in command of the 1st Brigade, 2d Division, 2d Army Corps, in 1863, and served under Gen. Grant in his operations against Vicksburg, and under Gen. Sherman in his Mississippi campaign. Later he was placed in command of the 2d Brigade, 2d Division, and commanded it in the battles of the Wilderness and Spottsylvania. In 1864, on Gen. Grant’s recommendation, he was promoted brigadier-general, and in 1865 was brevetted major-general for gallant conduct at the assault on Fort Steadman. After the war he was offered a commission in the regular army, which he declined. He settled in Keene, N. H., and served five years in the State Legislature, being for two years Speaker of the House.

Griscom, Eugene, alienist, born in Granville, N. C.; died in Washington, D. C., July 27, 1902. He served in the Confederate army in the civil war till he was wounded, and was afterward a member of the North Carolina Legislature. For twenty-one years he was superintendent of the North Carolina Insane Asylum. He gained a wide reputation as an alienist and lecturer. His lecture On the Borderland of Insanity, delivered before the American Medical Society, was received with considerable attention. Dr. Griscom was the first vice-president of the American Medical Society, several times presiding officer of the Association of Superintendents of American Insane Asylums, and author of True and False Experts.

Guernsey, Alfred Hudson, editor, born in Brandon, Vt., May 12, 1818; died in New York city, Jan. 17, 1892. He was educated at the Nevada Institute, where he also learned typesetting, and later at Union Theological Seminary. Subsequently he was employed by Messrs. Harper & Brothers, first as corrector of the press, and afterward as one of the literary advisers. When Harper’s Magazine was established, he was assigned to the editorial staff, where he remained for twenty years, during which time he contributed numerous articles to the magazine and conducted the department of Monthly Record of Current Events. In 1863 he became an associate editor of the American Anti-Slavery Society, and contributed many historical and biographical articles relating to the civil war, and later he was editor of Alden’s Cyclopaedia of Universal Literature. With Mr. Blunt he wrote Harper’s Pictorial History of the Great Rebellion (1863–67). His writings in book form include The Spanish Armada; Thomas Carlyle: His Theories and Opinions; Ralph Waldo Emerson, Philosopher and Poet; and The World’s Opportunities and How to Use Them.

Ham, Charles Henry, lawyer, born in Canterbury, N. H., in January, 1831; died in Paterson, N. J., Oct. 16, 1902. He was a clerk in a store in London, and later (1852–56) in the Concord Railroad office in Concord, N. H., and while thus employed he studied law. In 1856 he removed to Chicago, where he entered the banking-house of R. K. Swift & Co., and was admitted to the bar in 1860. In 1871 President Grant appointed him appraiser of the port of Chicago, where he remained till 1886; and in 1889 President Harrison appointed him a member of the Board of General Appraisers, which office he held till June, 1891. Civil war broke out he entered the National service as captain in the 2d New Hampshire Regiment, with which he took part in the first battle of Bull Run. He was promoted colonel in October, 1861, and became colonel in April following. He took part in
Hampton, Wade, military officer, born in Charleston, S. C., March 28, 1818; died in Columbia, S. C., April 11, 1902. He came of a family of military men bearing the Christian name of Wade. His father was a lieutenant of United States dragoons in 1813 and an aide to Gen. Jackson in 1815. His grandfather was an officer in the Revolutionary War and major-general in 1813, and one of his sons was a Confederate officer. He was born near City Point, Va., in 1844. He graduated at the University of South Carolina, and studied law, but never practised. His early life was devoted almost exclusively to the management of his large plantations in South Carolina, and served in both branches of the State Legislature, where he gave expression to political views of a national Democratic rather than a secession tendency, and such were not the views of the State. At the outbreak of the civil war he enlisted as a private in the Confederate army, but soon raised a command of infantry, cavalry, and artillery, which became known as the Hampton Legion, and won distinction in the early part of the war, a record repeated in the Peninsular campaign, and especially at Seven Pines, where the command lost half of its number and its leader was wounded. Soon afterward Hampton was commissioned a brigadier-general of cavalry. He was actively engaged in the Maryland and Pennsylvania campaigns in 1862-63; distinguished himself at Gettysburg; was promoted major-general, Aug. 3, 1863; and in 1864, after several days' fighting, checked Sheridan at Trevilian's Station. In September following he was made commander of Lee's cavalry, with the rank of lieutenant-general; and later of Gen. Johnston's. After the war he engaged in cotton-planting. He was Governor of South Carolina in 1877-79; United States Senator in 1879-91; United States Commissioner of Pacific Railroads in 1893-97, when he was succeeded by Gen. James Longstreet.

Hanchett, David, actor, born in Montgomery County, New York, in 1827; died in Brooklyn, N. Y., April 20, 1902. As a youth he showed decided preference and talent for the stage, and in 1845 he founded the old Shakespearean Association, giving many performances in Gothic Hall, Broadway, New York. After playing a variety of roles with this company of amateurs for one year, he joined a professional company in 1846, traveling with it in the South. He kept on the road eight seasons, gradually advancing in his art, and winning friends and admirers wherever he appeared. In 1854 he returned to New York as leading man in the old Broadway Theater, on the site where Daly's Theater now stands. He played there one year, and in 1855 he went to Boston, where he made some of the most distinguished successes of his career. For one season he played leading roles at Howard Athenaeum, then under the management of Edward L. Davenport. The next season he appeared at the National Theater, with William B. English as manager. Here he acted with the popular Western Sisters—Lucille and Helen—in their whole repertoire, and became as great a favorite in the West as he had been in New York. In the height of his popularity Mr. Hanchett played very often with Charlotte Cushman, making several tours of the United States with her. He also acted frequently in support of Julia Dean and of Edwin Booth. In earlier years he had been associated with Junius Brutus Booth, a fact of which he was very proud. He married Emma Warren, sister of William Warren, the leading actor of the old Boston Museum Company. In his later years Mr. Hanchett retired from the stage, and devoted much of his time to teaching dramatics.

Harkins, Daniel H., actor, born in Boston, April 27, 1836; died in New York, Dec. 7, 1902. He made his first appearance at Rice's Theater, Chicago, in 1853. In 1857 he purchased the stock company at the Walnut Street Theater, Philadelphia, where he supported Edwin Forrest and many other celebrated actors. He went to New York in the following year, and in 1859 he became a member of Laura Keene's company. At the outbreak of the civil war he was playing at Niblo's Garden, N. Y., but he organized a company of cavalry and served throughout the entire conflict on the staffs of Gen. Slocum, Hunter, and Sullivan, and receiving after a time an appointment as major of a New York regiment. After the war he returned to the stage, and in 1866 he appeared in the support of James K. Hackett, after which he joined Augustin Daly's company, in which he played leading roles for many seasons. After the war, Mr. Harkins organized a dramatic company of his own, and with it he toured the world, playing Shakespearean and modern dramas in nearly every English-speaking country. When this tour ended he settled in San Francisco, and for several years appeared in classic roles at the California Theater. In 1887 he joined Richard Mansfield's company, remaining with that organization nine seasons. During his later years Mr. Harkins was interested in fruit-farming and owned a fine farm at White Plains, N. Y. He made his last appearance, April 14, 1902, at Wallack's Theater, New York city, on the first night of The Last Appeal, when he became ill and was unable to continue playing. Mr. Harkins had a fine presence and a melodious voice, and a genial nature that won him many friends.

Harrison, Gabriel, actor, artist, and author, born in Philadelphia, March 25, 1818; died in Brooklyn, N. Y., Dec. 16, 1902. When he was six years old his family removed to New York, and their house was often visited by well-known literary, theatrical, and other notable people. Aaron Burr was among these, and young Harrison became a favorite with the former Vice-President, who taught him to read. When he reached early manhood he desired ardently to become an actor, and after some stage experience in amateur societies he joined, in 1838, the National Opera Company, in New York, under the management of James W. Wallack, playing Otello to Mr. Wallack's Iago. Later he appeared in the support of Edwin Forrest and of Charles Keane. In 1851 he organized the Academy of Art, in Brooklyn, and in 1853 he opened the Park Theater in that city. He became a member of the Brooklyn Academy of Design in 1877, and for several years was its secretary. When the Long Island Historical Society was organized (in 1884), Mr. Harrison presented to it a library of dramatic works, comprising novels, short stories, plays, old manuscripts, and the wedding-ring of Edgar Allan Poe, which had been given to him by a
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Member of the poet's family. He was one of the founders of the Faust Club, and organized the movement for placing in Prospect Park a bust of John Howard Payne, who was his lifelong friend. Mr. Harrison was one of the first in this country to produce the portraits known as daguerreotypes. He achieved considerable distinction as a landscape artist, and painted a portrait of the Crystal Palace in London and at the World's Fair in New York. His writings were chiefly dramatic, including a dramatization of Hawthorne's Scared Letter and adaptations of Schiller's plays. He also wrote a biography of John Howard Payne. In his later years he was a successful teacher of elocution and dramatic action. He painted a portrait of Poe from a daguerreotype that he himself had taken, and presented it to the Authors Club of New York.

Harte, Bret, author, born in Albany, N. Y., Aug. 25, 1838; died in Camberley, England, May 6, 1902. His Christian name originally was Francis Bret, but he dropped the name Francis about 1870. His father was a teacher in Albany Female Seminary. Bret received a common-school education, and at the age of fifteen went to California with his widowed mother. He walked from San Francisco more than a hundred miles to Sonora, then up the gold fields of the Ochoco and some of his articles were sold directly in type, without manuscript. For a time, when the editor was absent, he conducted the journal; but his editing did not please the subscribers, and he was obliged to withdraw from the establishment. He returned to San Francisco, became a compositor in the office of the Golden Era in 1857, contributed sketches to the paper (at first anonymously), and after a time became a member of the editorial staff. Later he was associated in the establishment of The Californian, a short-lived literary weekly, to which he contributed his Condensed Novellas. From 1864 to 1870 he was secretary of the United States mint in San Francisco, and in those years he wrote several poems (some humorous and others satirical) which were copied and widely published. The most successful of these were The Society upon the Stanislaus and John Burns of Gettysburg. In 1868 he became editor of the new magazines, and was selected to take charge of a number of weekly periodicals. He had drawn a picture of a grizzly bear for the cover design, Harte drew two straight marks under it, representing the track of the new railroad, on which the bear appeared to be looking at an approaching train, thus greatly increasing the artistic suggestiveness. In the number for August of that year he published The Luck of Roaring Camp, which at once gave him a high reputation as a story-writer, and in the September number The Outcasts of Poker Flat. These two are recognized as ranking with the very best short stories in the language—or in any language. Harte created a dialect, attributed to the mining-camps, which had no existence except in his pages. Other short stories of California life followed in quick succession. In September, 1870, he published his satirical poem entitled Plain Language from Truthful James, commonly known as The Heathen Chinee, which was completed and revised for the history of the phonograph for the Edison Company, the Soldiers and Sailors Monument at Pawtucket, R. I., the Soldiers and Sailors Monument at Orange, N. J., and at the Lincoln Monument at Cincinnati, Ohio.

He contributed exclusively to the Atlantic Monthly, and that firm published all his books, bringing out at once collected editions of his poems and short stories. He appeared on the platform with a lecture on The Argonauts of '49, but he was no orator. He was appointed United States consul at Crefeld, Germany, in 1874, and was transferred to Glasgow, and then to Paris, in 1880. This office he held till 1885, when on the incoming of a new administration he was removed. Thenceforth he made his home in London. His publications in book form are Condensed Novellas (1867); Poems (1871); The Luck of Roaring Camp, and Other Sketches (1871); East and West Poems (1871); Mrs. Skaggs's Husbands (1872); Tales of the Argonauts, and other Stories (1875); Thankful Blossom (1876); Two Men of Sandy Bar (1876); Gabriel Conroy (1876); The Story of a Mine (1877); Drift from Two Shores (1878); Echoes of the Foothills (1879); The Twins of Table Mountain (1879); Flip and Found at Blazing Star (1882); In the Carquises Woods (1883); On the Frontier (1884); By Shore and Ledge (1885); Maruja, a novel (1886); Snow-Bound at Eagle's (1886); A Millionaire of Rough and Ready (1887); The Crusade of the Excelsior (1887); Cressy (1887); The Heritage of Dido (1888); A Ward of the Golden Gate (1888); A Sappho of Green Springs (1889); Colonel Starbottle's Client (1889); A First Family of Tassajara (1890); Susy (1890); Sally Dows, and Other Stories (1891); The Porcupine's Quill, and other Stories (1891); The Bell-Ringers of Angel's, and Other Stories (1892); Clarence (1892); In a Hollow of the Hills (1893); Barker's Luck, and Other Stories (1894); Tales of the Frontiers (1894); Tales of the Old Trail (1894); Tales of Light and Shadow (1895); Mr. Jack Hamlin's Meditation, and Other Stories (1896); From Sandhill to Pine (1897); Under the Redwoods (1898); and Openings in the Old Trail (1900). For portrait, see frontispiece.

Hartley, Marcellus, manufacturer, born in New York city, Sept. 28, 1829; died there, Jan. 8, 1902. After completing his education he entered a counting-room, and in 1854 he established the firm of Schuyler, Hartley & Graham, which in 1866 became the M. Hartley Company. During the civil war he served as a brigadier-general of volunteers, and was authorized to buy all the guns in the European market, to prevent, if possible, the Confederates from securing them. He was a director in several financial corporations, a member of a number of scientific societies, and was closely identified with many charitable institutions, especially with Hartley House, erected by the New York Association for the Improvement of the Poor.

Hastings, William Granville, sculptor, born in England about 1868; died in Mount Vernon, N. Y., June 13, 1902. He was educated at Dulwich College, studied art in London and Paris, and in 1885 began the study of sculpture and art pottery. In 1889 he went to Paris, where he was engaged in ecclesiastical figure work. He came to the United States in 1891, and executed considerable work, including a series of bas-reliefs illustrating the history of the phonograph for the Edison Company, the Soldiers and Sailors Monument at Pawtucket, R. I., the Soldiers and Sailors Monument at Orange, N. J., and the Lincoln Monument at Cincinnati, Ohio.
Helmuth, William Tod, physician, born in Philadelphia, Pa., Oct. 30, 1833; died in New York Harbor, May 15, 1898. He attended the Homeopathic Medical College, Philadelphia, in 1853; became Professor of Anatomy there in 1855; and during the interval wrote Surgery and its Adaptations to Homeopathic Practice. In 1858 he began practice in St. Louis, Mo., and in the following year organized the College of Homeopathic Physicians and Surgeons there, and was made its dean and Professor of Surgery. In 1867 he was president of the American Institute of Homeopaths; the following year he spent in Europe studying surgery; and in 1869 he was made Professor of Surgery in the New York Homeopathic Medical College and Hospital. Dr. Helmuth was one of the editors of the North American Homeopathic Journal, and was author of numerous works, including A System of Surgery, Scratches of a Surgeon, Suprapubic Lithotomy, and With the Pousse Café.

Hemphill, William Arnold, publisher, born in Athens, Ga., May 5, 1830; died in Atlanta, Ga., Aug. 17, 1902. He was graduated at the University of Georgia, where he received the degree of civil engineer; served in the Confederate army during the Civil War, and was wounded at Gettysburg. He was mayor of Atlanta in 1891, and founded the Atlanta Constitution.

Hendrickson, John, merchant, born in Middlesex Co., Va., Aug. 14, 1834; died in New York city, June 29, 1902. He served in the civil war, first as a lieutenant in the 7th New York Regiment and later as colonel of the 9th Regiment. In the battle of Pea Ridge he lost his right leg, and at the close of the war he was brevetted brigadier-general of volunteers for gallant and meritorious services. In early life he was engaged in the silk business, later in the cotton trade, and after 1880 in the woolen trade.

Henry, John W., jurist, born in Cynthiana, Ky.; died in Kansas City, Mo., Dec. 12, 1902. He was graduated at Harvard Divinity School in 1855. He was pastor of a Unitarian Church in Nantucket in 1855-57, and in the following year organized a Unitarian Society in South Boston, which grew so rapidly that a church was built, known as the Church of the Unity. In 1860, while in charge of this church, he received leave of absence and entered the 47th Massachusetts Regiment as chaplain, and served throughout the Louisiana campaign. In 1863 he was transferred to the staff of Gen. Banks, and at the end of the year returned to his church, and soon afterward wrote an account of his army experiences under the title, "Whip Hand," and filled a vacancy, and afterward was twice elected to the office for full terms. In 1876 he was appointed a judge of the Supreme Court, on which bench he served till 1885, when he retired in the two last years. On his retirement he settled in Independence. A year afterward he was appointed a judge of the circuit court, which was his last judicial office.

Hepworth, George Hughes, clergyman and journalist, born in Boston, Mass., Feb. 4, 1833; died in New York city, June 7, 1902. He was graduated at Harvard Divinity School in 1855. He was pastor of a Unitarian Church in Nantucket in 1855-57, and in the following year organized a Unitarian Society in South Boston, which grew so rapidly that a church was built, known as the Church of the Unity. In 1860, while in charge of this church, he received leave of absence and entered the 47th Massachusetts Regiment as chaplain, and served throughout the Louisiana campaign. In 1863 he was transferred to the staff of Gen. Banks, and at the end of the year returned to his church, and soon afterward wrote an account of his army experiences under the title, "Whip Hand," and filled a vacancy, and afterward was twice elected to the office for full terms. In 1876 he was appointed a judge of the Supreme Court, on which bench he served till 1885, when he retired in the two last years. On his retirement he settled in Independence. A year afterward he was appointed a judge of the circuit court, which was his last judicial office.

Hirsch, Solomon, diplomatist, born in Portland, Oreg., Dec. 15, 1802. He was a merchant in Portland, and well known in Oregon politics. While president of the State Senate, in 1855, he was nominated for the United States Senate. As the vote was a tie, he could have elected himself, but he cast his vote for his opponent. In 1859 he was appointed minister to Turkey.

Hoadly, George, jurist, born in New Haven, Conn., July 31, 1829; died in Watkins, N. Y., Aug. 27, 1902. He was graduated at Western Reserve College in 1844; studied at Harvard Law School, and was admitted to the bar in 1847. In 1849 he became a partner in the law firm of Chase & Ball; in 1857 he left this firm, and in 1858 succeeded Judge Gholson on the bench of the new Superior Court. He was elected judge of the Superior Court of Cincinnati in 1856, city assessor in 1856, city auditor in 1858, and was an exhibitor in 1858. In 1858 he became a Republican, but in 1870 he opposi-

York Herald to distribute a relief fund to the famine sufferers. Since 1880 he had applied himself exclusively as a student at the New York University. In 1886 he was sent to Armenia as special correspondent of the Herald. Dr. Hepworth was author of They Met in Heaven; The Life Beyond; The Farmer and the Lord; Starboard and Port; The Little Gentlemen in Green; Rocks and Shoals; Lectures to Young Men; Christ and His Church; Hiram Golf's Religion; Brown Studies; and On Horseback through Armenia.

Herron, Francis Jay, military officer, born in Pittsburg, Pa., Feb. 17, 1837; died in New York city, Jan. 8, 1902. He was graduated at the Western University of Pennsylvania in 1854; and removed to Dubuque, Iowa, in 1856, where he became a merchant. When the civil war broke out he organized and commanded the Governor's Grays, in the 1st Iowa Regiment; was engaged in the battles of Booneville, Dug Springs, Osark, and Wilson's Creek; was promoted lieutenant-colonel of the 9th Iowa Infantry in September, 1861; and in the campaign in Missouri, Arkansas, and Indian Territory; and later was promoted colonel of the regiment, and distinguished himself at the battle of Pea Ridge, as a prisoner, but was soon exchanged. He was commissioned a brigadier-general of volunteers July 29, 1862, and commanded in the battle of Prairie Grove, Ark., for which he was promoted major-general of volunteers Nov. 9. Early in 1863 he joined Gen. Grant at Vicksburg, where he commanded the left wing of the National forces till the surrender of the city; was present on the expedition that captured Yazoo City and the large fleet of boats and supplies there. Later he was placed in command of the 13th Army Corps, on the Texas coast. While there he broke up the traffic across the Rio Grande, and, under private instructions from Washington, gave what aid he could to President Juarez of Mexico, and prevented Maximilian's troops from establishing themselves at any point on the Rio Grande frontier. For this service President Juarez offered him a high command in the Mexican army. In March, 1865, he was appointed to command the Northern Division of Louisiana, and in June he received the surrender of all the Confederate forces west of the Mississippi. In July he was appointed one of the commissioners to negotiate treaties with the Indian tribes. He resigned the latter commission together with that of major-general in August of the same year. In 1873 he removed to New York, where he practised law till his death.

Heller, George, jurist, born in New Haven, Conn., July 31, 1829; died in Watkins, N. Y., Aug. 27, 1902. He was graduated at Western Reserve College in 1844; studied at Harvard Law School, and was admitted to the bar in 1847. In 1849 he became a partner in the law firm of Chase & Ball; in 1857 he left this firm, and in 1858 succeeded Judge Gholson on the bench of the new Superior Court. He was elected judge of the Superior Court of Cincinnati in 1856, city assessor in 1856, city auditor in 1858, and was an exhibitor in 1858. In 1858 he became a Republican, but in 1870 he opposi-
tion to a protective tariff led him to affiliate again with the Democratic party. He was one of the counsel that successfully opposed the project of a compulsory reading of the Bible in the public schools, and was the leading counsel for the assignee and creditors in the case of the late Archbishop Purcell. He was an active member of the constitutional convention of Ohio in 1873-74; professor in Cincinnati Law School in 1884-87; Governor of Ohio in 1883-85; and a trustee of the University of Ohio for several years. He removed to New York city in 1887 and resumed practise.

Hobart, Harrison C., military officer, born in Ashburnham, Mass., about 1822; died in Milwauk ee, Wis., Jan. 26, 1902. He was graduated at Dartmouth College in 1843, and removed to Wisconsin in 1846, where he began the practise of law. He was elected to the Territorial Legislature in 1847, and was the first State Senator from his district. He aided in framing the Constitution, and had a marked influence on much of the early legislation of the State. In the civil war he became a brigadier-general of volunteers; was captured by the Confederates and taken to Libby Prison; and was one of the men who conducted the famous tunnel through which the prisoners escaped. Then Hobart was the last survivor of the Wisconsin constitutional convention.

Hoffman, Eugen Augustus, Episcopal clergyman, born in New York city, Mar. 21, 1822; died near Plattsburg, N. Y., June 17, 1902. He was educated at Rutgers College and Harvard University, and after studying in the General Theological Seminary, was ordained priest in 1855. He was rector of Christ Church, Elizabeth, N. J., 1852-63; of St. Mary's Church, Burlington, N. J., 1863-64; Grace Church, Brooklyn, N. Y., 1864-90; and St. Mark's, Philadelphia, 1868-79. In the year last named he was appointed dean of the General Theological Seminary, in which office he continued until his death. When he accepted the office of dean the seminary was hampered by insufficient endowment and equipment; he left it a flourishing institution housed in stately buildings with a staff of 600 and a large fund in the bank. Dean Hoffman was many times a millionaire, the wealthiest clergyman in the United States, and not only was he liberal toward the institution which he had established, but his benefactions were extended in many other directions. He was actively interested in the work of historical, genealogical, scientific, and other societies. His writings include Free Churches; The Ritualistic Week; and Manual of Devotion for Communicants. Theologically he was classed among the more advanced churchmen, although not an extremist.

Holbrook, Martin Luther, hygienist, born in Mantua, Ohio, Feb. 3, 1831; died in New York city, Aug. 12, 1902. He was educated at Ohio University, and was associate editor of the Ohio Farmer, of Cleveland, in 1850-51, when he became interested in medicine and hygiene, and went to Boston to study. He was associated with Dr. Dio Lewis in his propaganda of physical culture and hygiene, and the introduction of his system into the public schools. In 1864 he removed to New York and formed the partnership of Miller, White and Holbrook in the sale of medical books and the Herald of Health, of which paper Dr. Holbrook remained editor till 1898. He was the author of Hygiene of the Brain and Cure of Nervousness; Eating for Strength; Parturbation without Pain; Liver Complaint; Mental Dyspepsia and Headache; Chastity, Marriage, and Parentage; Hygienic Treatment of Consumption; Stipiculture, etc.

Hooker, George W., banker, born in Salem, N. Y., in 1838; died in Brattleboro, Vt., Aug. 6, 1902. He was educated at West River Academy. At the outbreak of the civil war he enlisted as a private in the volunteer organization, and soon afterward was made sergeant-major. He reached the rank of lieutenant-colonel in 1865, and received a medal of honor for gallantry at South Mountain. After the war he became associated with the banking firm of William Belden & Co., of New York, as junior partner; was elected to the State Legislature of Vermont in 1880, and by it was chosen judge-advocate-general. In 1879 and 1880 he was elected department commander of the Grand Army of the Republic; and he was president of the Vermont Agricultural Society.

Hopkins, George Milton, inventor, born in Oakfield, N. Y., Nov. 21, 1842; died in Cheshire, Mass., Aug. 17, 1902. He early showed an aptitude for mechanics, and was placed in a workshop in Albion. In 1862 he obtained his first patent for an apparatus for turning leaves of music, after which followed many other inventions, among them an electromagnetic sewing-machine, two for telegraphy, two for transmitting signals, and two on telephone receivers. Later he became interested in the construction of gas-engines, and secured several patents in that line. In 1876 he became the first American as an attorney in the patent department. As one of the editors of that publication he had charge of the electricity department and also conducted the city, was arranged for the National Democratic Convention in Chicago in 1884. From 1891 till his death he was a judge of the Superior Court of Massachusetts.

Horton, Albert, lawyer, born in Orange County, New York, March 13, 1837; died in Topeka, Kan., Sept. 1, 1902. He was educated at Farmer's Hall Academy and the University of Michigan; removed in 1860 to Kansas, where he practised law, served in the Legislature, and held several judicial offices. He was at one time United States attorney for the district of Kansas, and he was Chief Justice of Kansas from Jan. 1, 1877, to May 1, 1885, when he resigned.

Horton, David Philander, musician, born in Southold, Long Island, N. Y., in 1827; died there, April 1, 1902. He began his musical studies in 1845 under Prof. Edward Home, Jr. In 1856 he began musical work in the Brooklyn public schools, and he continued in that service till 1892, when he retired on account of failing health. He played in the Brooklyn Orphan Asylum, free of charge, for thirty-five years; taught sailors on board the United States training-ship Minnesota three years; taught deserted soldiers, too poor to pay; and was interested in singing classes all over Long Island. He composed many pieces of music; published several singing-books, including Songs of the National Army; and set to music many of Fanny Crosby's hymns.
Howe, William F., lawyer, born in Boston, Mass., about 1826; died in Bronx Borough, New York city, Aug. 2, 1902. He was taken to England when three years old, and was educated at King's College, London. Returning to the United States in 1857, he was admitted to the bar in 1859, and passed his life in practise in New York city. In 1869 he was in the partnership of Howe & Hummel; and in 1882, with Daniel O. Rollins, codified the State laws as they now appear in the Penal Code. During his professional career he had charge of the defense in nearly 600 homicide cases. He was a skilful orator, and obtained many favorable verdicts by his eloquence.

Huesemann, George, pomologist, born about 1857; died in Napa, Cal., Nov. 6, 1902. He was a promoter of horticultural and viticultural interests, and for three years was Professor of Pomology and Forestry in the University of Missouri. He founded, with Parker Eric, the American Pomological Society. Prof. Huesemann was author of several books on viticulture and horticulture; publisher of The Viticultural Journal; and a contributor to many magazines.

Hull, Harmon D., financier, born in Fulton, N. Y.; died in New York city, June 6, 1902. He entered the National army in April, 1861; with Col. Duryea he served with the 6th New York Volunteers, known as the Duryea Zouaves, in which he was made captain, and later major and lieutenant-colonel; and served with this regiment till 1865. In 1862 he was appointed colonel of the 165th New York Volunteers. Near the close of the war he raised and commanded a regiment recruited from the veterans of the 5th and 165th Volunteers. In 1869 he was appointed collector of the Treasury Department in Europe.

Humphreys, Willard, educator, born in New York in 1867; died in Princeton, N. J., Sept 26, 1902. He was educated at Brooklyn Polytechnic Institute and at Berlin and Heidelberg; and was graduated at Columbia University in 1888. In 1892 he was admitted to the New York bar, and in 1898 was appointed to Princeton College. He was Professor of Latin at Princeton University in 1892–94, when he was transferred to the German department, of which, in 1902, he became head. He was a member of the New York Medical Society; editor of the Columbia Law Times, of Selections from Quintus Curtius (1896); and Schiller's Jungfrau von Orleans (1899); and associate editor of the Medico-Legal Journal.

Hunnewell, Horatio Halls, philanthropist, born in Watertown, Mass., July 27, 1810; died in Wellesley, Mass., May 20, 1902. He was educated in Watertown, and in Paris, France. In 1835 he entered the Paris banking-house of Welles & Co., and on his return to the United States, in 1860, established the firm of H. H. Hunnewell & Sons in Boston. He was interested in the construction of Western railroads, and was a director in financial institutions in Boston. Mr. Hunnewell's summer home was in the town of Wellesley, which took its name from Mrs. Hunnewell's family. He gave Wellesley its town hall, its library, and about 20 acres of wooded park.

Hyatt, Alpheus, naturalist, born in Washing- ton, D. C., April 19, 1835; died in Cambridge, Mass., Jan. 15, 1902. He was graduated at Law- rence Scientific School, Harvard, in 1862. During the civil war he served in the 47th Massachusetts Regiment, was captured, after which he re- gained his studies under Agassiz, and then passed a year in Germany. In 1867, in association with Edward S. Morse, Alpheus S. Packard, and Frederick W. Putnam, he settled in Salem, Mass., where he became one of the curators of the Essex Institute and a founder of the Peabody Academy of Sciences. In 1870 he was elected to the chair of Zoology and Paleontology in the Massachusetts Institute of Technology, which he held for many years, and he also taught in the Boston University, and in connection with the Society of Natural History was manager of the Teachers' School of Science, founded in 1870. Prof. Hyatt had charge of the laboratory of Natural History founded at Annisquam, Mass., by the Woman's Educational Society of Boston during its existence. In 1870 he was elected custodian of the collections of the Boston Society of Natural History, where in 1881 he became curator. During recent years he had charge of invertebrate fossils in the Museum of Comparative Zoology in Cambridge, and was one of the collaborators of the catalogue of the museum. He was a member of the editorial board of The American Naturalist, and was one of the editors of the American Society of Naturalists, of which he became president at its first meeting, held in Springfield, Mass., in 1883. The American Academy of Arts and Sciences elected him to fellowship in 1886, and he was a member of the National Academy of Sciences in 1876. In 1893 Brown University gave him the degree of LL. D. His scientific researches were largely devoted to the lower forms of animal life, and the more important of his publications were: Observations on Polyzoa (1866); Fossil Cephalopods of the Museum of Comparative Zoology (1872); Revision of North American Forifera (1875–77), which is the only work on North American commercial sponges; Genesis of Tertiary Species of Planorbis at Steinheim to Princetoning the student at Steinheim of fossils that were regarded in Europe as affording the only positive demonstration of the theory of evolution; and Genera of Fossil Cephalopoda, one of the most important contributions to the theory of evolution. Larval Theory of the Origin of Cellular Tissue (1874) contains his theory of the origin of sex; and of later date were his monographs on Genesis of the Arctiid (Washington, 1886); Bioplas- tology and the Related Branches of Biologic Research (1883); Phylogeny of an Acquired Characteristic (1894); Cephalopods (1900). Besides the foregoing, Prof. Hyatt edited a series of Guides for Science Teaching, and was himself the author of several of the series, including About Pebbles; Commercial and Other Sponges; Common Hydroids, Corals, and Echinoderms; The Oyster, Clam, and Other Common Molluskis; and Worms and Crustaceans.

Isham, Edward S., lawyer, born in Benning- ton, Vt., Jan. 15, 1836; died in New York city, Feb. 17, 1902. He was graduated at Williams College in 1857, and later at Harvard Law School; and was in Cambridge, the seat of the bar in Rutland. In 1858 he removed to Chicago, and in 1869 he was re- cknowledged with James L. Stark, under the firm name of Isham & Stark, and in 1872 with Robert T. Lintner, under the firm name of Isham & Lincoln, which subsequently was changed, by
the admission in 1884 of William B. Beale, to Isham, Lincoln & Beale. He was elected to the General Assembly of Illinois in 1864, and served as a member of the Judiciary Committee. He was a trustee and vice-president of the Newberry Library Board; and author of The Social and Economic Relations of Corporations in the Encyclopedia of Political Science; Frontenac and Miles Standish in the Northwest; and Ethan Allen, A Study in Civic Authority.

Johnson, John Butler, educator, born in Marlboro, Ohio, June 11, 1859; died in Pier Cove, Lake Michigan, June 20, 1902. He was graduated at the University of Michigan in 1879, with the degree of civil engineer, and was made dean of the College of Mechanics and Engineering in the University of Wisconsin. He was instrumental in securing for the university an engineering building valued at $100,000 and laboratories valued at $40,000 and conducted a large testing laboratory in St. Louis, in which all the United States timber tests were made; superintended the Index Department of the Journal of the American Society of Engineers; contributed largely to engineering literature; and wrote Topographical Surveying (1884); Theory and Practise of Surveying (1886); Modern Framed Structures (1889); and Materials of Construction (1897).

Johnston, Robert, actor, born in Philadelphia in 1827, Nov. 10, 1862. He was one of the oldest American actors, and at one time was very well known in the theatrical profession. He made his first appearance at the Arch Street Theater, Philadelphia, before he was twenty, under the management of William E. Burton. After Mr. Burton removed to New York young Johnston managed the Arch Street Theater for some time. He went to New York in 1851 and joined Burton's stock company at the old Chambers Street Theater. After acting several seasons in this company, he went to England and played a long and successful engagement at the Theatre Royal, Haymarket, London. When he returned to this country he played for many years in various organizations. In March, 1895, after being in retirement from illness for a number of years, Mr. Johnston entered the firm of Ford & Martin. When he returned he played in the Old Daughter's Home, at Bath, N. Y., to which he was admitted because of his service in the civil war, when he was a captain in the 52d New York Volunteers. He was a fine actor in the old classic drama, and had played in support of Charlotte Cushman, Edwin Forrest, Junius Brutus Booth, and William Macready. He married Nell Germon in 1858.

Joseph, Jacob, rabbi, born in Wilna, Russia, in 1846; died in New York City, July 28, 1902. He was taught at the Talmudic Academy, studied under Rabbi Israel, and then became a preacher. In 1888 he came to New York city; was made chief rabbi of the United Jewish Congregations; and preached to large congregations of Russian Jews who had immigrated to the United States in 1880. He was head of the Congregation Beth Hamedrash Hagodol for fourteen years. Joseph Jacob wrote the opening lecture, and wrote several books, including Beth Jacob, a work on Jewish religion, philosophy, and law. When his death was announced nearly 1,000 people visited his house, and prayers were offered for the rabbi, and his portrait, which had not been seen for several years, were hung in store windows heavily draped in mourning. On the morning of his funeral hundreds of stores were closed in his honor, and the streets were crowded with people. A band of 300 boys, singing psalms, preceded the hearse to six of the largest synagogues on the East Side of the city, in each of which brief services were held. As the funeral cortège was passing a large manufacturer on its way to Brooklyn some operatives threw water from windows on the mourners, and in a moment a riot occurred, in which many of the Hebrews were clubbed by the police and otherwise maltreated by a rabble on the street. Mayor Low ordered an official investigation of the action of the police, and the chief precinct officers were blamed for not affording the mourners an adequate escort and for permitting the clubbing. Jouett, James Smith, born in Lexington, Ky., Feb. 27, 1828; died in Sandy Springs, Md., Oct. 1, 1902. He entered the United States navy as midshipman in 1841; was promoted passed midshipman to lieuten- ant in 1855; lieutenant-commander, July 25, 1862; commander, July 25, 1866; captain, Jan. 6, 1874; commodore, Jan. 11, 1889; and rear-admiral, Feb. 19, 1886; and was re- tired on reaching the age limit in 1890. After serving in the Mexican War he went to the United States Naval Academy, where he was graduated in 1847. At the outbreak of the civil war he was a lieutenant-ant on the frigate Santee of the Western Gulf blockading squadron. In 1861, while in command of a detachment of sailors and marines from the Santee, he boarded and destroyed the Confederate vessel Royal Yacht, and received wounds in his arm and side. For this achievement Lieut. Jouett received the commendation of his commanding officer and the thanks of the department. Later he received command of the R. R. Cuyler, of the Western Gulf blockading squadron, with which he captured 8 blockade-runners in 1863. For old service he was put in 1865 for old service, but remained only a short time, going thence to the State Soldiers' Home, at Bath, N. Y., to which he was admitted because of his service in the civil war. After that, when he was a captain in the 52d New York Volunteers. He was a fine actor in the old classic drama, and had played in support of Charlotte Cushman, Edwin Forrest, Junius Brutus Booth, and William Macready. He married Nell Germon in 1858.

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Kedzie, Robert Clark, chemist, born in Delhi, N. Y., Jan. 23, 1823; died in Lansing, Mich., Nov. 7, 1902. He was graduated at Columbia in 1846, and at the Medical Department of the University of Michigan in 1851. When the civil war broke out he enlisted as surgeon of the 12th Michigan Infantry, but resigned in 1863 to become Professor of Chemistry at the Michigan Agricultural College, which post he held till June, 1901, when he was made professor emeritus. He was a member of the Michigan Legislature in 1867; of the State Board of Health in 1873–81, serving as president in 1877–81. Prof. Kedzie had been president of the Michigan State Medical Society, the American Public Health Association, the Association of Agricultural Colleges, and the Sanitary Council of the Mississippi Valley.

Kendrick, Adin A., educator, born in Teconderoga, N. Y., Jan. 7, 1836; died in Alton, Ill., April 7, 1902. He was educated at Granville Academy and at Middlebury College, Vermont; later he studied law and practised for two years. In 1861 he was graduated at the Theological Department of the University of Rochester, and he held pastorates in the Baptist Church till 1872, when he was elected president of Shurtleff College, where he remained till 1879. He was pastor of Immanuel Baptist Church, of St. Louis, in 1894–99, and in the latter year returned to Shurtleff College as dean of the School of Divinity, where he remained till his death.

Kimball, James Patterson, military medical officer, born in Berkshire, Tioga Co., N. Y., Aug. 21, 1840; died in Oneonta, Tiennsville, N. Y., April 19, 1902. He was graduated at Hamilton College in 1862, and at Albany Medical College in 1864. So determined was he to enter the army before the close of the civil war that he completed the work of two years in one at the medical college, and was admitted to the corps of medical cadets. In January, 1865, he was advanced to the rank of assistant surgeon of the 121st New York Infantry. At the battle of Hatcher's Run, in March, he was almost constantly under fire, his duty being to assist in bringing off the wounded as they fell on the field. He passed through the ensuing campaign when for a week the Confederate army was retreating westward from Petersburg, closely pursued by the Army of the Potomac, with a rallying fight all the way, and he was present at the surrender. He was mustered out in July of that year; and in 1867 he joined the medical staff of the regular army and was made assistant surgeon with the rank of 1st lieutenant. His first important service under this appointment was at Fort Duford, Dakota, from 1867 to 1870. Here the little garrison, surrounded by hostile Sioux and frequently raided, led a lonely and hazardous life. From 1884 to 1887 he was on duty at West Point, and from 1887 to 1896 at various posts in the West. Except a part of 1899, when he had leave of absence and visited Europe. He was promoted to the rank of major and surgeon Jan. 24, 1886; lieutenant-colonel and deputy surgeon-general, Feb. 1, 1890; colonel and assistant surgeon-general, July 22, 1893; and brigadier-general, May 5, 1896. He was retired for disability incurred in the line of duty. During the war with Spain he was stationed at Governor's Island, where he performed the double duty of open surgeon and attending surgeon at headquarters, Department of the East. In 1898 the hospital accommodations were more than doubled and the wards were filled with wounded and fever-striken patients. Besides carrying the great burden of regular duty, Dr. Kimball spent many hours at night answering the constant letters of inquiry concerning wounded or missing soldiers. In 1900 he was promoted to the rank of lieutenant-colonel and deputy surgeon-general, and transferred to Omaha, Neb., as chief surgeon of the Department of the Missouri. The change of climate and of duty was at first beneficial, but in the end the strain of the preceding two years told upon him and his health steadily failed. Through thirty-five years of active service Dr. Kimball placed first his duty to his patients and to the service, yet he always found time for hunting, and he was also a reader of wide range. Outside of his professional reading, his favorite was thoroughly the flora of every military post at which he was stationed. An account of some rare or curious plant was often embodied in reports sent to Washington or to the medical journals (see Apocynum Cannabinum, New York Medical Journal, 1895, vol. lxi). The language and customs of the Indians, particularly those of the Sioux and Navajos, was his great interest. His mastery of the Sioux tongue enabled him to discover and decipher the autobiography of Sitting Bull, a narrative told in pictures, which Dr. Kimball contributed to the Smithsonian collections. Both in camp and in garrison he was frequently consulted by the Indians, and he invariably won their confidence and gratitude. Both as a physician and as a surgeon he was cautious and conservative, yet alert and daring when necessary. Thus in a case of maggots in the nose (the larva of a little-known fly had been deposited in diseased tissue), he saved the life of a soldier by heroic injections of chloroform (see his report of the case, New York Medical Journal, 1885, vol. lvii). Again, an officer wounded in an Indian campaign was being maturated to death by the jolting of the hospital ambulance. The command was ordered to halt while the surgeon devised a litter on wheels upon which he successfully carried his patient for a month's march across the plains. His article on Transportation of the Wounded in War, written at the outbreak of war with Spain, was considered authoritative (Albany Medical Annals, 1898, vol. xix; Medical News, New York, 1898, vol. lxxii; Journal Military Service Institution, U. S., Governor's Island, New York Harbor, 1898, vol. xxiii). In 1899 he was president of the Albany Medical College Alumni in the City of New York. A high medical authority writes: "As a military surgeon and sanitarian Dr. Kimball stood very high, not as a brilliant man, fond of innovation and display, but as one imbued with the highest sense of duty. His reports to the department all show care and a low mortality rate, and to this he by hostile Sioux and frequently raided, led a lonely and hazardous life. From 1884 to 1887 he was on duty at West Point, and from 1887 to 1896 at various posts in the West. Except a part of 1899, when he had leave of absence and visited Europe. He was promoted to the rank of major and surgeon Jan.
Kimberly, Lewis Ashfield, naval officer, born in Troy, N. Y., April 2, 1830; died in West Newton, Mass., Jan. 28, 1905. He was graduated at the United States Naval Academy and made passed midshipman June 8, 1852; master and lieutenant in 1855; lieutenant-commander in 1862; commander in 1868; captain in 1874; commodore in 1884; and rear-admiral in 1887; and was retired April 2, 1892. When the civil war broke out he served on the frigate Potomac of the Western Gulf blockading squadron till 1862, when he was transferred to the Hartford, on which he served till the close of the war, taking part in the engagement and passage of the Port Hudson batteries, the engagement with the batteries at Grand Gulf and Warrington, on the Mississippi, and the battle of Mobile Bay. Capt. Percival Drayton, in his official report of the battle of Mobile Bay, said: "To Lieut-Commander Kimberly, the executive officer, I am indebted not only for the fine example of coolness and self-possession which he set to those around him, but also for the excellence and devotion to which he had brought everything belonging to the fighting department of the ship, in consequence of which there was no confusion anywhere, even when, from a sudden explosion near by, all the guns belonging to the port battery might have been lighted for." After the war he was attached to the steam frigate Colorado, flagship of the European squadron, and on becoming attached to the receiving-ship New York. He commanded the Benicia on the Asiatic coast in 1870-72, and later the Canonicus of the North Atlantic squadron. In the Neches, at Nacogdoches, Texas, he was on duty as the New York Navy-Yard in 1880-83; a member of the Examining and Retiring Boards in Washington in 1884-85; commandant of Boston Navy-Yard in 1886; and of the Pacific station in 1887. In 1888, while he commanded the fleet in the Pacific, during the trying period of negotiations with Germany over the Samoan difficulty, his ships were wrecked in the hurricane at Apia, the Trenton and Vandalia being completely destroyed and the Nipsic cast ashore. From 1890 till his retirement he served as president of the Naval Board of Inspection and Survey. He was also president of the survey department of the United States. He was second in command of the steamer Ohio, on the Pacific and Gulf coast, and in the nursery at the old New York Theater, managed by the Worrell Sisters. After a brief experience in this capacity, he joined a traveling company, and before long he had had sufficient dramatic practice to be able to play minor roles. He acted in the stock companies of Troy and New Orleans, the John E. Owens Company, and the Epicus Company, Cleveland, and other cities. During these engagements he advanced from playing unimportant characters to the place of leading man. He obtained a play entitled "The Hopeless" and "The Possessed," which did not meet with the same success as "The Hopeless." He returned to the stage and traveled in Europe. In 1894 he became a member of the board of the Brooklyn Opera House, Brooklyn, and he managed it until 1888, when he disposed of his interest and became one of the lessees of Amphion Academy, Brooklyn. From 1892 to 1896 he was interested also in the Brooklyn Columbia Theater. In 1894 he became A. M. Palmer's partner in the management of Brooklyn Park Theater, and he also took a lease of Fifth Avenue Theater, New York, managing it successfully for three years, and in 1900 disposing of his interest in it to F. F. Proctor. Mr. Knowles was very successful in organizing and managing traveling companies, and he owned an interest in some of the best plays on the road, among which were The Great Diamond Robbery and four Quo Vadis companies. In theatrical club life he was a prominent figure, serving several terms as president and secretary of the Actors' Fund, and as acting president of the Actors' Order of Friendship, vice-president of the Hanover Club, and president of the American Drama Club, Brooklyn, and as treasurer of the Theatrical Managers' Association of the United States. He married, in 1876, Sarah E. Goodrich, of Chicago. Mr. Knowles was a man of great and distinguished actors of his time, and was a leading spirit in everything that could improve the condition of the stage and theatrical life in general.

Leatze, James Eugene, born in Essex County, Virginia, Jan. 15, 1831; died in Baltimore, Md., Feb. 21, 1902. He was graduated at the Law Department of the University of Virginia in 1852, and was admitted to the bar in 1854. He organized Trinity Protestant Episcopal Church in Staunton, Va., in 1857, and was its rector fourteen years. He was then called to St. Matthew's Church, Wheeling, W. Va., where he remained till 1874, when he formally withdrew from the Protestant Episcopal Church and announced his adhesion to the Reformed Episcopal tenets. Returning to his early home, he founded a church in Essex County and one in King William County. He declined the bishopric of the Reformed Episcopal Church in Chicago in 1876, but accepted it again chosen in 1879, and was assigned to the Southern jurisdiction. In 1883 he was elected presiding bishop of the Reformed Episcopal Church in the United States, and in 1881 was made Bishop of the Synod of New York and Philadelphia.

Leeds, Albert Ripley, chemist, born in Philadelphia, Pa., June 27, 1843; died there, March 15, 1902. He was graduated at Harvard University in 1865, and before graduation he was appointed Professor of Chemistry in the Philadelphia High School, and in the following year to the same chair in the Franklin Institute, the Philadelphia Dental College, and the vaccine College. The three latter professorships necessitated incessant lecturing and teaching, and in the attempt to discharge these duties his health broke down. Resigning them, he spent several years in travel in Europe. On his return he organized the Department of Chemistry at Stevens Institute of Technology. During the first five years Prof. Leeds contributed papers on new chemical and other species and on lithography, which he published in the American Journal of Science. Subsequently the teaching of analytical chemistry occupied most of his time, and the results of his work were published in the Fresenius Zeitschrift and the Chemical News. On election as presiding officer of the American Chemical Society and Secretary of the National Academy of Sciences, he turned his attention to technical and general
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chemistry, and published 42 papers thereon in the Proceedings of those societies. In 1872 he became expert chemist to the water-boards of Newark and Jersey City, and afterward he held the same post in Hoboken, Albany, New London, Jamestown, Philadelphia, Reading, Wilmington, Plymouth, Ottawa, and other cities. In 1881 he became a member of the New Jersey State Board of Health and chairman of its Council of Analysts. He was president of the International Water-Purifying Companies. In the early part of 1902 he was prostrated with cancer and was informed that he had a few weeks only to live. At this, he resigned his chair at Stevens Institute, called his classes together, and bade the students farewell. A few days before his death he was presented with a loving-cup by the students.

Lewishon, Leonard, merchant, born in Hamburg, Germany, about 1848; died in London, England, March 5, 1902. He came to the United States in 1864 as an agent for his father, who was in the feather business, and two years later his brother joined him and the firm of Lewishon Brothers, importers of feathers, bristles, etc., was formed. In 1868 he pro- ceeded to the Western States and engaged in the metal trade, and in a few years became the most conspicuous copper dealers in the United States. Mr. Lewishon was one of the organizers of the American Smelting and Refining Company, of the Tennessee Copper Company, and the Feather River Exploration Company, and a member of the New York Coffee Exchange. He made many gifts for charitable purposes, including $100,000 to the Sheltering Guardian Society, $60,000 to the Montefiore Home, $50,000 to the Jewish Seminary, and $10,000 to the Young Men's Hebrew Association. (See Gifts and Bequests.)

Lippitt, Francis James, lawyer, born in Providence, R. I., July 10, 1812; died in Washington, D. C., Sept. 27, 1902. He was graduated at Brown University in 1830, and was attached to the American legation in Paris in 1834-35. He served in the Mexican War as captain of the 1st New York Volunteers, and in 1849 was chairman of the Republican State Convention. In the civil war he was colonel of the 2d California Infantry and was promoted brigadier-general of volunteers. In 1877-82 he was counsel for the United States Department of Justice. He lectured before the Boston University Law School in 1873 and 1874, and the Naval War College in 1896, 1897, and 1900. His publications include Treatise on the Practical Use of the Three Arms; Treatise on Intrenchments; Special Operations of War; Field Service in War; Criminal Law in Massachusetts; Physical Proofs of Another Life; and contributions on economic subjects to American and European periodicals.

Litchfield, Henry G., military officer, born in New York, Dec. 14, 1837; died in New York city, Jan. 26, 1902. He entered the National army as a private in March, 1862; was made 2d lieutenant in the 18th United States Infantry in July, 1862; 1st lieutenant and transferred to the 38th Infantry in April, 1863; captain, February, 1869; assigned to the 2d Artillery in 1871; and was retired in 1892. In September, 1863, he was brevet- ted captain for gallant and meritorious service in the battle of Chickamauga. He served in the Army of the West; accompanied Sherman in his march to the sea; took part in the battles of Missionary Ridge, Hoover's Gap, Peach Tree Creek, Resaca, and Dallas; and was brevetted lieutenant-colonel for gallant and meritorious services in the last-named battle. In 1878-83 he was on special duty on the staff of Gen. Hancock; in 1884-88 commanded the military post at St. Augustine, Fla.; and later at Fort Trumbull, Connecticut, and Fort Schuyler, New York.

Lockwood, Henry Clay, lawyer, born about 1839; died in New York city, Dec. 24, 1902. He studied law; entered the National army in 1862; was appointed a captain and assigned to the staff of Brig.-Gen. Morris, and participated in the battles of the Wilderness and Spottsylvania Court-House. He also served on the staffs of Gens. Martindale and Ames; was brevetted major for gallantry at the storming of Fort Fisher in 1865; and was mustered out of the service with the full rank of major in 1866. Returning to New York, he took up the practise of law. In March, 1872, he was commissioned major of the 71st Regiment, N. G. S. N. Y., and in September following lieutenant-colonel. He was author of The Abolition of the Presidency; True History of the Army at Fort Fisher; and the Making of the Monocrome.

Long, Charles D., jurist, born in Grand Blanc, Mich., June 14, 1841; died in Detroit, Mich., June 27, 1902. He entered the National army as a private in the Civil War, and in the battle of Wilson's Island, Georgia, in April, 1862, received two severe wounds, which rendered him an invalid for life. A shot shattered his left arm, which had to be amputated above his elbow, and another pierced his hip. He studied law, and was elected a judge of the Supreme Court of Michigan in 1887, and reelected in 1897.

Lord, James Brown, architect, born in New York city, April 26, 1859; died there, June 1, 1902. He was graduated at Princeton University in 1879, and studied architecture with William A. Potter. He designed many of New York's best-known structures, including the two Delmonico buildings; the Hospital for Babies; the courthouse for the Appellate Division of the Supreme Court, in Madison Square; and the first of the Carnegie libraries, and 16 of the other 65. He also designed many of the beautiful homes in Tuxedo Park, completed plans for a building in University Place for the Sailors' Snug Harbor, and was selected as the architect of the Memorial Building to be erected by the class of 1879 of Princeton University.

Loring, Charles Groely, military officer, born in Boston in 1828; died in Prides Crossing, Mass., Aug. 20, 1902. He was graduated at Harvard University in 1849; Practical Law, 1850; Captain, lieutenant-colonel, and inspector-general of the 9th Army Corps till July, 1865, when he resigned; and was brevetted major-general of volunteers. He became a trustee of the American Museum of Fine Arts in 1873, and was executive officer from 1870 till 1902.

McCullooh, Hugh, poet and litterateur, born in Fort Wayne, Ind., March 9, 1849; died in Florence, Italy, March 27, 1902. He was educated at Harvard University, and was an assistant in English there in 1892-94, afterward going abroad and devoting himself to literary study and work. The Quest of Herakles, a volume of poems published several years before his death, exhibited much promise, and was characterized by careful technique and reserve power. The ship-building trade. On the discovery of gold in California he went thither and led a miner's life for several years. In 1880 he removed to
 Nevada, where he also engaged in mining. In 1872 he was one of the discoverers of the celebrated Bonanza mines, on a ledge in the Sierras, Nevada. He was one of the founders of the Bank of Nevada, with headquarters in San Francisco, being also its president till his death. In 1884, in association with James Gordon Bennett, he laid two cables across the Atlantic Ocean, connecting the United States with England and France under the system known as the Commercial Cable Company. Mr. Mackay was a generous patron of religious and charitable institutions, especially those of the Roman Catholic Church. Among his notable benefactions is the Roman Catholic Orphan Asylum in Virginia City, Nev.

McMillan, James, capitalist, born in Hamilton, Ontario, May 12, 1838; died in Manchester, Mass., Aug. 10, 1902. He removed in 1855 to Detroit, Mich., where he entered the hardware business. In 1857 he became a purchasing agent for the Detroit and Milwaukee Railroad Company; and, with John M. O'Sullivan, organized the Michigan Car Company; became interested in a great number of enterprises, including the Detroit Car-Wheel Company, the Baugh Steam-Forge Company, and the Detroit and Iowa Railway, which united the two Michigan peninsulas; and also was connected with steamboat, elevator, telephone, bank, and dry-dock enterprises. He was elected a United States Senator in 1901 and a presidential elector in 1884; and was chairman of the Republican State Convention in 1885 and 1896. He gave the city of Detroit a thoroughly equipped hospital, costing $250,000, and endowed it with $300,000; to the University of Michigan, one of the finest Shakespearean libraries in the country and McMillan Hall; to the Agricultural College of the State, the Tupper collection of insects; and also a building for a seminary for colored girls at Crockett, Texas, and a building for the Presbyterian Club of Ann Arbor. (See GIFTS AND BEQUESTS.)

Marquand, Henry Gurnon, capitalist, born in New York city, April 11, 1819; died there, Feb. 26, 1902. He was engaged for twenty years in managing the estate of his brother, and then became a banker. He observed the poor construction and faulty design of city architecture, was among the earliest to become interested in its improvement, and was the first honorary member of the American Institute of Architects. He was one of the purchasers of the Iron Mountain Railroad in 1868, of which he became vice-president and later president, till its incorporation in the Missouri Pacific system, and was a director in the latter company and many other corporations. He devoted much time to the Metropolitan Museum of Art, of which he was first a trustee, later vice-president, and afterward president, and made it numerous gifts and loans. He presented a chapel and, with Robert Bonner, a gymnasium to Princeton University; with his brother, a pavilion to Bellevue Hospital; and individually founded and endowed the Free Public Library at Little Rock, Ark.

Marsh, Luther Mason, lawyer, born in Portland, Me., April 4, 1813; died in Middletown, N. Y., Aug. 15, 1902. He studied law and was admitted to the bar in Albany, N. Y., in 1838. He practised in New York city a year, and then removed to Utica, N. Y., where he followed the law for a few years, and then returned to New York city. He was for a time associated with Daniel Webster; in 1850-51 carried on a crusade against intramural burials, and drew the bill of 1850 and 1851, which put an end to the custom. In 1853 he introduced a bill into the Legislature for enlarging the park area, and later was made park commissioner. In 1891 he gave up his law practice and devoted the remainder of his life to lecturing in defense of spiritualism. He came so far under the influence of the notorious Ann O'Delia Dias de Bar that the most influential of his friends of the bar interfered and brought about a separation.

Martin, Augustus P., military officer, born in Abbott, Me., Nov. 23, 1835; died in Dorchester, Mass., March 12, 1902. He was a clerk till 1861, when he went to the front with the Boston Light Artillery, popularly known as Cobb's Battery, and served three months. On his return he was commissioned 1st lieutenant in the 3d Massachusetts Battery; was promoted captain in November; assigned to duty as chief of artillery of the 1st Division, 9th, and the 5th Corps, and in 1862, and when the artillery of the 8th Corps was organized into a brigade in May, 1863, he was placed in command of it. He took part in numerous engagements, including the siege of Vicksburg, and the battles of Hanover Court-House, Mechanicsville, Gaines's Mill, Malvern Hill, Manassas, Antietam, Frederickburg, Chancellorville, Gettysburg, the Wilderness, Spottsylvania, and Petersburg. On his return home he resumed mercantile business; was elected mayor of Boston in 1883, and later was appointed police commissioner.

Mason, John, lawyer, born in Philadelphia, Pa., in 1828; died in New York city, Feb. 28, 1902. In 1857 he patented the screw-top glass fruit-jar, on which invention he made an improvement in 1901. He was treasurer and director of the Colonial Bond and Guaranty Company of New York at the time of his death.

Maxwell, Henry W., philanthropist, born in Brooklyn, N. Y., Dec. 7, 1860; died in Bay Shore, Long Island, May 11, 1902. Early in life with his brother, J. Rogers Maxwell, he became interested in railroad enterprises. At the time of his death he was a member of the stock-holding firms of Maxwell & Graves and of the Board of Regents of Long Island College Hospital, Trustee of the Brooklyn Institute of Arts and Sciences, President of Polytechnic Institute and of the Memorial Clinic. Mr. Maxwell built and equipped three industrial schools for the Brooklyn Industrial School Association; built the Maxwell House and Kindergarten and presented it to the Brooklyn Guild Association; erected a dormitory and Nurses' Home for Long Island College Hospital; and, among other benefactions, gave $30,000 to Long Island College Hospital for the establishment of an operating-room and $20,000 for the relief of the Johnstown-flood sufferers.

Merrill, Moses, educator, born in Methuen, Mass., in 1833; died in Boston, Mass., April 29, 1902. He was graduated at Harvard University in 1856, and taught in Cambridge, Mass., till 1858, when he became a master in the Boston Latin School. He was made head master in 1879, and resigned on account of failing health in 1901.

Miller, Alfred Brashier, educator, born in Brownsville, Pa., Oct. 16, 1829; died in Waynesburg, Pa., Jan. 26, 1902. He was graduated at Waynesburg College in 1853, and was Professor of Mathematics there in 1853-58; president in 1858-59; and later president emeritus and acting professor of the philosophical department. He was pastor of a Cumberland Presbyterian Church in Waynesburg ten years, and lecturer before...
teaching institutions, summer schools, and Chautauquas. He was an author of Dramatics and the author of the Cumberland Presbyterian Church and a contributor to periodicals.

Mitchell, Henry, engineer, born in Nantucket, Mass., Sept. 16, 1830; died in Boston, Mass., Dec. 11, 1902. He was educated at the Normal School in Bridgewater, Mass.; entered the Government service as a civil engineer in 1851; was assistant to the commissioners on harbor encroachments of New York in 1859; led an expedition under Count de Lesseps in connection with the Panama Canal scheme; was consulting engineer of the United States Commission on Boston harbor; was appointed in 1874 to represent the Coast and Geodetic Survey on the Board of Engineers having in charge the improvement of the mouth of the Mississippi river; and served on the Advisory Board of the Harbor Commissions of Virginia and Rhode Island in 1875–77. He was appointed Professor of Physical Hydrography at the Massachusetts Institute of Technology in 1869, and to the same chair in the Agassiz School of Science in 1874, but was unable to perform the duties. He was the author of articles on tides and tidal phenomena, river currents, and other subjects connected with physical hydrology. He also published an elaborate defense of Count de Lesseps' Moor, Edward Mott, mathematician, born in Rahway, N. J., July 15, 1814; died in Rochester, N. Y., March 3, 1902. His family removed to Rochester, N. Y., in 1820. He was graduated at the medical department of the University of Pennsylvania, and began practise in Rochester. In 1843 he was elected Professor of Surgery in the Medical College at Woodstock, Vt. From 1858 till 1883 he held the same chair in Buffalo Medical College. He was the first president of the New York State Board of Health and at one time he was president of the Medical Society of the State of New York. He had also been president of the National Surgical Association and of the National Medical Association. His investigations resulted in important additions to the pathology of the heart, and they were recorded in numerous medical papers. For many years he was president of the Board of Trustees of the University of Rochester. He also organized the Rochester Public Health Association.

Morgan, Thomas Jefferson, soldier and educator, born in Franklin, Ind., Aug. 17, 1838; died in Osceola, N. Y., July 12, 1890. He was the son of the Hon. and Rev. Lewis Morgan, and was educated at Franklin College, which he left in his senior year (1861) to enlist in the 7th Indiana Volunteer Infantry, where he served for three months, and then became superintendent of schools in Atlanta, Ill. The next year he entered as a 1st Lieutenant the 70th Indiana Volunteer Infantry, which was commanded by Benjamin Harrison, afterward President of the United States. He remained in the army till the close of the war in 1865, leaving the army with the rank of brevet brigadier-general, bestowed "for gallant and meritorious service during the war." He organized three regiments of colored infantry, and commanded the first colored brigade of the Army of the Cumberland. He was for a time on the staff of Gen. Oliver O. Howard, and distinguished himself in the battle of Resaca; and again especially at the battle of Nashville, where he commanded a division. After the war he studied theology, being graduated at Rochester Theological Seminary in 1888, and then for three years was corresponding secretary of the New York Baptist Union for Ministerial Education. He was pastor of a church in Brownville, Neb, one year, and later was principal of the Nebraska State Normal School. From 1874 to 1881 he was Professor of Homiletics and Church History in Chicago Theological Seminary; after which he was principal successively of the normal schools at Potsdam, N. Y. (1881–93), and Providence, R. I. (1884–90). In July, 1889, he was appointed Commissioner of Indian Affairs, which office he held through President Harrison's administration. In this office he devoted his energies to the extension of the public-school system to the Indian schools. Agreeing with President Harrison in the fundamental doctrine of the absorption of the Indians into the state, he recommended that the cost of educating the wards of the General Government be assumed by that Government, and succeeded in breaking up, with excellent reason, the long-endured system of so-called contract schools. He also placed the schools and other departments of the Indian service under the civil-service rules. On retiring from his office in 1895, he was corresponding secretary of the American Baptist Home Mission Society, to which service he gave the remaining nine years of his life. His work here as chief executive officer was extended and arduous along all lines. The extension of schools for the colored people in the South and West being one of the primary interests of the society, Gen. Morgan's attainments as an educator, administrator, and commander of colored troops especially fitted him to increase and broaden the efficiency of this branch of mission work. He received the degrees of D. D. and LL. D., and was a member of Kappa and a companion of the Loyal Legion. He married in 1870 Caroline, daughter of Hon. Frederick Starr, of Rochester, who survives him. Gen. Morgan wrote the history of his denomination and the press at large; edited the Home Mission Monthly, the Students' Hymnal, and the Praise Hymnal; and published in book form Educational Mosaics (1887); Studies in Pedagogy (1888); Patriotic Citizenship (1895); and The Negro in America (1900).

Morton, Henry, physician, born in New York city, Dec. 11, 1836; died there, May 9, 1902. He was the son of the Rev. Henry J. Morton, rector of St. James's Protestant Episcopal Church in Philadelphia, and was educated at the University of Pennsylvania, where, after graduation in 1853, with the valedictory, he took a post-graduate course in chemistry. He then turned his attention to law, but, having been invited to lecture on chemistry and physics in the Episcopal Academy of Philadelphia, he found that task so congenial that he soon relinquished his law studies. In 1863 he was chosen Professor of Chemistry in Philadelphia Dental Seminary, and in 1864 he became resident secretary of the Franklin Institute in Philadelphia, in connection with which he began the delivery of a series of lectures on light, sound, and similar topics, which were so
brilliantly illustrated that they gave him a high standing as a popular lecturer. He was invited to the chair of Physics and Chemistry in the University of Pennsylvania during the absence of Prof. John F. Frazer in 1867–68, and in 1868 the professorship was divided and the chair of Chemistry was assigned to him. In 1870 he resigned his connection with the Franklin Institute to accept the presidential chair of the Stevens Institute of Technology, then about to be organized in Hoboken, N. J., under the will of Edwin A. Stevens. The building of this institution was then in course of erection, and President Morton was entrusted with the selection of a faculty, with whom he arranged the courses of instruction. This office he continued to hold until his death, leaving, in 1880, he presented the institution with a workshop fitted up with steam-engines and machine tools at a cost of more than $10,000. In 1868 he established the department of applied electricity, presenting $2,000 for the purchase of electrical apparatus and machinery, and guaranteeing the salary of the professor who should take charge of that department. Again, in 1868, he gave $10,000 to the institution as the first installment with which to endow a chair of Engineering Practice, to which, in 1892, he added a similar amount. At the time of the celebration of the twenty-fifth anniversary of the organization of the institution he added $25,000 to his donations, and in 1900 $15,000, and again in 1901 $50,000. His total contributions to the funds of Stevens Institute amounted to more than $150,000.

Dr. Morton organized and conducted the photographic department of the Eclipse Expedition that was sent, in 1869, to Iowa under the auspices of the United States Nautical Almanac Office. He obtained numerous satisfactory exposures, and was the first to prove the true nature of the bright light of the sun’s disk adjacent to the edge of the moon, as shown in partial phase-eclipse photographs. This phenomenon, which had been previously noticed by Stephen Alexander, Warren de la Rue, and Sir George B. Airy, was explained as a subjective effect not really existing in the picture but developed to the eye by contrast. President Morton was a member of the private expedition that was organized by Henry Draper to observe the total solar eclipse of July 29, 1878, at Rawlins, Wyo. His most important and extensive researches were on the fluorescent and absorption spectra of the uranium salts, in connection with which he examined the spectra of anthracene, acrane, chryseene, and a new solid hydrocarbon found in certain petroleum distillates. This new body he named thalene, from its brilliant green fluorescence. In 1872 he was appointed to the vacancy on the Lighthouse Board caused by the death of Joseph Henry, and he continued in that office seven years, conducting meanwhile various investigations on fog signals, fire-extinguishers, illuminating buoys, and like subjects, which appeared in the annual reports of the board. President Morton appeared frequently in court as an expert witness on chemistry and physics in connection with patent suits, and acquired an extended reputation for that work. His printed testimony, it is said, "if collected in separate form, would equal in volume a set of Scott's novels." The degree of Ph.D. was conferred upon him by Dickinson College in 1869, and by Princeton in 1871, and that of D.Sc. by Pennsylvania, and L.L.D. by Princeton in 1897. In 1874 he was chosen to the National Academy of Sciences, on several of whose commissions he served. During 1867–70 he was editor of the journal of the Franklin Institute. Besides articles on electricity and fluorescence contributed to the Universal Cyclopaedia, he published the results of his researches in the scientific journals of this country and Europe. He was associated in the preparation of The Student's Practical Chemistry (Philadelphia, 1868), and also, during his college course in 1859, in the publication of a translation of the trilingual hieroglyphic inscription of the Rosetta stone, for which he made the lithographic drawings. (See Biographical Notice of President Henry Morton, Ph. D., of the Stevens Institute of Technology, prepared by Prof. Coleman Sellers, E. D., and Prof. Albert R. Leeds, Ph. D., New York, 1892.)

Morton, Julius Sterling, agriculturist, born in Adams, N. Y., in 1840, was educated at Lake Forest, Ill., April 27, 1902. He was graduated at Union College in 1864; removed to Nebraska City in 1865; became editor of the Nebraska City News; a member of the Territorial Legislature in 1856 and 1857; secretary of the Territory in 1858; acting Governor on the resignation of Gov. Richardson a few months later; and was appointed Secretary of the United States Department of Agriculture in 1893, which post he held till 1897. Mr. Morton was the originator of Arbor Day; one of the original members of the Nebraska State Historical Society, of which he also was president; and was editor of the Conservative, a weekly journal.

Moses, Adolph, rabbi, born in Posen about 1840; died in Louisville, Ky., Jan. 8, 1902. He was graduated at Hebrew Union College, and became a teacher of Hebrew. He was a soldier under Garibaldi; came to the United States in the sixties, and from that time till his death preached in Montgomery and Mobile, Ala., and for one year was rabbi of the Temple Adas Israel in Louisville, Ky. He also studied medicine and received the degree of M. D. Rabbi Moses was an eloquent speaker and a forceful writer. His publications include Religion of Moses; Loser, the Watchmaker; and frequent contributions to the weekly press.

Mundé, Paul Fortunatus, surgeon, born in Dresden, Saxony, Sept. 7, 1846; died in New York city, Feb. 7, 1902. In 1863 he entered the Medical Department of Yale University, but left before his course was completed to enter the National army as medical cadet. After serving six months he went to the Harvard Medical School, where he was graduated in 1866, and went to Germany. He became assistant surgeon in the Bavarian army, and served throughout the war of 1866, for which he was on hospital duty at Würzburg. In 1870 he enlisted in the Bavarian army as battalion surgeon with the rank of 1st lieutenant, and served in the Freisheits Light-War. In 1874 he returned to the United States, where he made a specialty of gynecology. He was Professor of
Gynecologist at the New York Polyclinic and at Mount Sinai Hospital, consulting gynecologist to the Mothers' and Babies' and the Skin and Cancer Hospitals; and consulting obstetrician to the City Maternity Hospital. He was editor of the American Journal of Obstetrics in 1872-92; president of the New York Obstetrical Society in 1898-99; invented numerous instruments for the practice of his specialty; and was author of Obstetric Palpation (1860); Minor Surgical Gynecology (1880); Appendix to Midwifery of Cazeneu and Tamier (1884); and Pregnancy and the Puerperal State (1897).

Munstery, Thomas Hoyer Munster, maître d'armes, born in Baltimore in 1814; died in Chicago, Jan. 2, 1902. His mother was the daughter of a famous Swedish beauty who was reported to have been themorganatic wife of King Frederick William II of Prussia, and his father was a Danish nobleman, who was expelled from the Danish court because of a duel that was unfavorably regarded. He was afterward made Governor of Santa Cruz, but left that place in 1812 and came with his wife to the United States about the same time. They returned to Denmark in 1820. When the boy Thomas was fifteen years old, he entered the Danish navy and served for three years. While in port at Rio Janeiro he killed a man who had insulted him. No action was taken against him in the matter, however, and he soon went to Stockholm, where he studied fencing and athletics under Dr. Linge, taught by the Swedish fencing-master. Under his instruction he became an expert swordsman and developed phenomenal strength. In 1836 he went to St. Petersburg as fencing-master and commander of the body-guard of the Grand Duke Constantine. For the amusement of the court, he fought with every one that wished to test his strength, including wild men from beyond the frontier, and he became such a favorite that a palace and large sums of money were given to him. But because of an intrigue with one of the ladies of the court he was exiled from Russia, and was forced to leave with almost empty pockets. He soon won enough money at cards, however, to go to Berlin, where he boldly claimed the right to a commission in the army on account of the Finn blood inherited from his mother. His story and his claim were not agreeable to the reigning family, and he soon found himself in prison at Spandau, from which, after a short time, he was suddenly released without a trial. He never knew why he was released, but ascribed it to the pleadings of his mother, the reputed daughter of Frederick William II. After obtaining his freedom, young Munstery became infatuated with a lady in whom a Danish nobleman was interested: the two men fought a duel on her account, and the nobleman was killed. Munstery hurriedly departed for America and joined the United States navy, seeing some service and receiving wounds, for the treatment of which he was taken to the naval hospital at Portsmouth, N. H. After his recovery he went to Philadelphia and sold cigars for a time, but his love of adventure made him restless, and he soon went to Nicaragua, where he found a revolution in progress, in which he joined, killing several men and receiving severe wounds himself. From Nicaragua he went to Cuba with Narciso Lopez, thence to the United States of Colombia, where he fought for General Santa, José Maria Mello. He came very near being hanged, but escaped to New York, and in 1855 he returned to Copenhagen just in time to act as second in a duel for the Spanish chapel d'armes. After this he went to Madrid, where he displayed his skill and his wonderful strength for the amusement of royalty and the nobility, and became a high favorite, with gold showered upon him. The Spanish Government sent him to Cuba to teach the use of the sword and bayonet to the soldiers there. In Cuba he had many adventures, and a jealous rival in love bribed a barber to disable him. The barber had been summoned to bleed him for a fever, but he treacherously cut a tendon in the sword-arm, supposing that the injury would be permanent. Munstery asserted that thanks to the tricks in massage and sword practice learned from Dr. Linge, he was able to overcome the effect of this injury, and as soon as he could use his arm again he assembled a band of 50 adventurers, and they went to Honduras to take part in a revolution in that country. The whole band was captured, and Munstery was put under a guard of 8 men. He killed 3 of them and broke the bayonets of 3 more, and the other 2 ran away. He made his escape, and was about to leave the country when President Guardiola heard of his exploit with the revolutionists and made him a generoso. Munstery was the largest man in Honduras before an audience of 20,000 people, and he became a popular favorite, and all went well with him until he aroused the jealousy of the president, who had in the opinion of some friend who helped him to buy 6 bulls, and with these animals he practised a week, killing one bull every day. He won the fight in the arena against a bull with flèched horns. Guardiola, still angry, tried to get rid of him by forcing him to go to the frontier and fight a wild tribe that was making trouble. Munstery was captured and tied to a tree overnight, to be killed in the morning. He managed to escape, and made his way to San Salvador, and thence to Chiapas, gathering about him 12 followers. At Chiaspas he was made chief of cavalry in a war against Mier and Ortega. He became separated from his companions, and it was said that he alone fought 10 men, killing them all. He discovered Ortega's stolen treasure, amounting to $100,000, which he hid, but after ward lost the maps showing where he had hidden it. He was wounded in this last adventure so badly that he determined to fight no more, and he returned to the United States and settled in Chicago, where he became the best known maître d'armes in the country. Among the many actors he trained in fencing were Edwin Forrest, Edward L. Davenport, Junius Brutus Booth, Jr., Edwin Booth, and Francis Wilson. General Munstery was a man of distinguished presence and charming personality. He had acted as principal in 20 duels, and as second in 53.

Nast, Thomas, caricaturist, born in Landau, Bavaria, Sept. 27, 1840; died in Guayaquil, Ecuador, Dec. 7, 1902. He went to New York with his mother and sister in June, 1846, attended the public schools for a short time and when fourteen years old was employed as doorman at Bryant's gallery of paintings. In 1855 he applied to Frank Leslie for employment as a draughtsman, and began on a salary of $5 a week, studying at the School of Design in the evenings. He soon acquired a local reputation, which became international in 1890 when he went to England to make sketches for the Illustrated News. Next he drifted to Italy, where he followed Garibaldi's campaign. He was
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present at the sieges of Capua and Gaeta, and sold sketches of the events he witnessed to periodicals in the United States and England. He returned to New York, and in 1862 became a regular contributor to Harper's Weekly. The civil war gave him abundant opportunity, and he was soon sent on sketch battle and camp scenes. He developed into a political cartoonist as the armed conflict subsided, espousing the Republican cause with vigor. His pictorial attacks on the Tweed ring contributed not a little to the downfall of that corrupt oligarchy. Many of his creations have passed into types. It was he who invented the tiger as the symbol of Tammany Hall, the elephant as the emblem of the Republican party, and the donkey as representing the Democracy. When there was question of reducing the military and naval appropriations, he depicted the United States army as a skeleton, a timely defense, which was afterward acknowledged by the presentation to him of a silver vase by 3,500 officers and enlisted men of the army, and a salute in the navy. In 1872 his cartoons were conspicuous in the campaign against Mr. Greeley. In that year he began the publication of Nast's Illustrated Almanac, which he published for several years. He visited the larger cities of the country, lecturing and illustrating his lectures with cartoons drawn in the presence of the audience. In 1870 he made cartoons on the Scourge of Emigration to Europe, and the first native Texan ever elected to Congress (1882). He was the author of several pamphlets on Texas and her resources.

Oshorn, Virginia, philanthropist, died in New York city, Feb. 7, 1902. She was the widow of William H. Oshorn, formerly president of the Illinois Central Railroad, who died in 1894. For many years she was active in establishing irreplaceable institutions in New York city, including the City Mission and the Cooking-School, and she was a founder of Bellevue Hospital Training-School for Nurses.

Osborne, William McKinley, lawyer, born in Girard, Ohio, April 29, 1842; died in Wormdon, England, April 29, 1902. He was educated at Poland Academy, Ohio, and Allegheny College; enlisted in the 23rd Ohio Regiment when the civil war broke out; and after a year's service was taken ill with typhoid fever. After his recovery he studied law at Guayaquil, for which post he sailed on July 1. On Dec. 4 he was attacked by yellow fever. Besides his work with the pencil, Nast painted in oil and water-colors, his best known pictures being those of the Seventh Regiment for the War, 1861. It represents the soldiers passing the corner of Broadway and Prince Street, and vividly depicts the intense excitement of the time. It was bought by the Seventh Regiment, of which Nast was a member. Among his numerous other paintings are Peace Again (1865); Lincoln Entering Richmond (1868); St. Nicholas (1869); and The Immortal Light of Genius (1890), painted for Sir Henry Irving. Nast's home for twenty-five years prior to his death was at Morristown, N. J.

Oshorn, George C., evangelist; born in Ireland about 1842; died in Marberth, Pa., Feb. 10, 1902. He worked a year in a business house in Dublin, and then became an evangelist. He preached throughout England and Ireland till 1888, when he came to the United States. The greater part of his life was passed in constant movement from one part of the country to another, and this he continued to do to the last. Among his best known works are Shadow and Substance; Conflict and Courage; The Spiritual Life; and Street Arabs.

Oshorn, Charles, journalist, born in Chicago, Ill., in 1870; died in San Francisco, Cal., Oct. 25, 1902. He was educated at the San Francisco High School, the University of California, and Harvard University; studied art in Paris in 1887-88; was war correspondent for McClure's Magazine in South Africa during the Uitlander excitement in 1885-86; editor of the San Francisco Wave in 1886-87; war correspondent for McClure's Magazine to the front in 1886-87, and was author of McTague, The Octopus, and The Pit. The latter, his last work, ran serially in the Saturday Evening Post, of Philadelphia, in 1902-03.

Ochiltree, Thomas P., journalist, born in Nacogdoches County, Texas, in 1840; died in Hot Springs, Va., Nov. 25, 1902. At the age of fifteen years he enlisted in the Texas Rangers, and served in the campaign against the Apache and Comanche Indians in 1854-55. He was editor of the Jeffersonian in 1860-61; entered the Confederate army at the outbreak of the civil war, and served on the staffs of Generals Green, Taylor, and Sibley. He was promoted major and colonel, and was taken prisoner at the battle of Five Forks. In the fall of 1865 he returned to Texas and engaged in journalism. He became United States marshal for Texas, editor of the Houston Daily Telegraph in 1866, Texas State Commissioner of Emigration to Europe, and the first native Texan ever elected to Congress (1882). He was the author of several pamphlets on Texas and her resources.

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ist, and Some Ill-Used Words, all of which have become authorities on the use of English. He became a dramatic critic, and finally a teacher of elocution, always laboring to bring about a better pronunciation and emphasis in English upon the stage. When he was in Germany, as a young man, he played Shylock, Richelieu, and other leading roles, in the German tongue; and in May, 1891, he appeared as Shylock in Boston, playing that part afterward throughout New England. His books on topics connected with the stage are Actors and Acting and The Art of Acting. His personal appearance was distinguished, and his manner was that of the gentleman of the old school. He abounded in kindly, unassuming, benevolent impulses, and often went out of his way to have infractions of the law punished when children or other helpless persons were the sufferers, and sometimes when the good of the general public demanded something that the general public neglected.

Packard, Josiah, clergyman; born in Wiscasset, Me., Dec. 23, 1812; died in Alexandria, Va., May 3, 1902. He was graduated at Bowdoin College in 1831; was a professor at Bristol College, Pennsylvania in 1834–36; and was ordained in the Protestant Episcopal Church in 1837. He was professor of Sacred Literature in the Protestant Episcopal Theological Seminary of Virginia from 1837 till 1890, and during that time was dean fifteen years. In 1890 he was made professor emeritus. He was a member of the American Committee on the Revision of the Bible in 1872–75; prepared the work on Malachi for Lange's Commentary; and was a frequent contributor to Church periodicals.

Palmer, Levi Leonard, educator; born in Holbrook, Mass., Oct. 10, 1832; died in Bangor, Me., May 10, 1902. He was a graduate of Yale University in 1856, and at its Theological Seminary in 1856; and preached in Farmington, Conn., till 1870, when he became dean of Bangor Theological Seminary till 1882. He was president of the Maine Missionary Society in 1888–94. He wrote a Critical History of the Evolution of Trinitarianism and The Ethnic Trinities.

Palmer, Alice Freeman, educator, born in Colesville, N. Y., Feb. 21, 1855; died in Paris, France, Dec. 6, 1902. She was graduated at the University of Michigan in 1876; was appointed teacher of Greek, Latin, and Mathematics at Geneva Lake, Wis., where she remained a year, and principal of the high school at East Saginaw, Mich., in 1877, where she remained till 1879, when she became Professor of History in Wellesley College. She held the latter post till 1881, when she became acting president. In 1882 she accepted the presidency of Wellesley College and remained at the head of that institution till 1887, when she married George Herbert Palmer, Professor of Philosophy in Harvard University. In 1892–93 she was dean of the Men's Department of the University of Chicago.

Palmer, Benjamin Morgan, clergyman, born in Charleston, S. C., Jan. 25, 1818; died in New Orleans, La., May 28, 1902. He was graduated at the University of Georgia in 1838, and at Columbia Theological Seminary in 1841; held Presbyterian pastorates in Savannah, Ga., in 1841–43; in Columbia, S. C., in 1846–66; and in New Orleans from 1856 till his death. He was professor of Church History and Polity in Columbia Theological Seminary in 1853–56; director of the same institution in 1842–56; and a director of the Northwestern Presbyterian College at Clarksville, Tenn., from 1873 till his death, and of Tulane University from its organization. He frequently served as a commissioner to the General Assembly of his denomination, and was one of the founders, in 1847, of the Southern Presbyterian Review, of which he was editor till his death. He was author of Life and Letters of J. H. Thornwell (1875); Sermons (1876); The Family in its Civil and Churchly Aspects (1876); Formation of Character (1889); The Broken Home (1900); and Theology of Prayer (1894).
and was either a delegate or an alternate to nearly every National convention until his retirement.

Patterson, Calvin, educator, born in Clarendon, N. Y., July 2, 1847; died in Brooklyn, N. Y., Jan. 27, 1902. He was graduated at the Albany Normal Institute in 1863, and later at Rochester Normal and University. He taught in Rochester a year, and then in the Buffalo Classical School. In 1871 he became Professor of Mathematics in the New York State Normal School, where he remained till 1873, when he became principal of a grammar school in Brooklyn. In 1882 he became superintendent of public instruction in Brooklyn, and held this post till 1886, when he was made principal of the Girls' High School, where he remained till his death. He established the first evening sessions of the public schools of Brooklyn.

Pennoyer, Sylvester, lawyer, born in G roton, N. Y., July 6, 1831; died in Portland, Ore., May 30, 1902. He was graduated at Harvard Law School in 1854; removed to Oregon in 1855, and taught school several years. In 1862 he became connected with the lumber industry, in which he acquired large wealth. In 1886 and 1889 he was elected Governor of Oregon, and in 1890 mayor of Portland. He was a well-known actor while Governor by saying, on an occasion when Secretary of State Gresham conveyed to him certain suggestions of President Cleveland concerning the Chinese exclusion act: "I will attend to my business; let the President attend to his."

Perkins, William Oscar, composer, born in Stockbridge, Vt., May 23, 1851; died in Boston, Mass., March 20, 1904. He graduated at Kalamazoo Union Academy in 1863; studied music, and then taught in Boston. He organized what is believed to have been the first male quartet for concert singing in the United States, the Mendelssohn Vocal Quartet; became conductor at the Boston Music Hall in 1858; and conducted many musical festivals. He lectured and wrote on musical and other topics; composed numerous part songs and hymns; and compiled and edited many collections of vocal music, his published works numbering 80 volumes. His last composition was The War in South Africa; or, Boer and Briton.

Pierce, Henry Miller, manufacturer, born in Susquehanna County, Pennsylvania, Oct. 6, 1831; died in Fort Worth, Texas, July 12, 1887. He was graduated at Waterville (now Colby) University, and was elected president of Rutgers Female College, New York city, which post he held thirteen years. Later he engaged in the wood-alcohol and phosphate industries. On the outbreak of the civil war, he, with two others, organized the army ambulance corps, and he personally directed its work during the campaign on the James, under Gen. McClellan. In 1867 he founded the city of West Nashville, Tenn., where he lived till 1890, when he removed to Washington, and thence, in 1894, to Rochester, N. Y.

Piper, Alexander, military officer, born in Pennsylvania, May 11, 1829; died in New York city, Feb. 21, 1902. He was graduated at West Point in 1847; was brevetted 2d lieutenant, 3d Infantry, July 1, 1851; promoted 2d lieutenant, Dec. 12, 1851; 1st lieutenant, Jan. 31, 1855; captain, 3d Artillery, May 14, 1861; major, 4th Artillery, Dec. 23, 1864; lieutenant-colonel, 1st Artillery, Nov. 8, 1862; transferred to the 3d Artillery, Nov. 10, following, and to the 1st Artillery, Jan. 23, 1865; colonel, 5th Artillery, Aug. 10, 1867; and was honorably mustered out July 6, 1865. He was assistant professor at West Point in 1853–54; on frontier duty in 1864–65; during the civil war participated in the campaigns of the Army of the Potomac in 1861–64; and was brevetted major, in August, 1862, for gallant and meritorious services during the campaign in Virginia, and lieutenant-colonel in June, 1865, for similar services at the siege of Petersburg. After the war he was assistant instructor of artillery tactics at West Point, and served at various posts and stations in 1868–90. He was a victim of the Park Avenue Hotel disaster in New York city.

Polk, Joseph B., actor, born in Maryland in 1841; died in Baltimore, Md., Jan. 5, 1902. His first appearance was in 1861, under the management of John T. Ford. He began to attract attention when he became a member of Wallack's Theater company, New York, and later he played for a time in Augustin Daly's Fifth Avenue Theater, finally joining the Union Square company, under the management of A. M. Palmer, where he remained for many seasons, making him the most distinguished successes of his career. Associated with him were Clara Morris, Charles Thorne, Stuart Robson, Sara Jewett, and other well-known actors, his parts being almost always the genial, humorous old men and strong "character" roles. After the disbanding of the Union Square Theater company, Mr. Polk went on a successful starting tour in the United States and also in England and Australia, where he became as great a favorite as in his own country. His last appearance was in Salt Lake City, in 1896, in What a Woman Will Do. At that time he was stricken with paralysis, from which he partially recovered. He then became president of the Chesapeake Brewing Company, of Baltimore, holding that place until his death. He married, in 1867, Julia Parker, daughter of the comedian, Joseph Parker. Mrs. Polk died June 20, 1900.

Ponston, Charles D., pioneer, born in Hardin County, Kentucky, about 1822; died in Phenix, Arizona, in June, 1902. He was a native of Kentucky, where he practised law in early life, and afterward in Washington, D. C. In 1854 he went to California as a gold seeker, and remained there till the civil war broke out, when he joined the National army as an aide on the staff of Gen. Heintzelman. After the war he served in California as Superintendent of Indian Affairs, and while holding this office served also as recorder of the region now embraced within Arizona. He gave Arizona her name in 1863, and secured the organization of the new Territory. In 1864 he was elected the first Delegate to Congress from Arizona. Subsequently he traveled in Europe, and again returned to Arizona, where he held various minor offices. For a time he was connected with several New York papers.

Potter, Edward Elias, naval officer, born in Medina, N. Y., May 9, 1833; died in Belvidere, Ill., Jan. 8, 1902. He entered the navy as midshipman Feb. 5, 1850; was promoted passed midshipman, June 20, 1858; master, Jan. 22, 1858; lieutenant, March 18, 1858; lieutenant-commander, July 10, 1862; commander, March 2, 1868; captain, April 1, 1880; and commodore, June 27, 1893; and was retired May 9, 1895. His first important duty was in conveying the Japanese ambassador home in 1860. At the outbreak of the civil war he was ordered to the Wissahickon, and he served on it during the bombardment and passage of Forts Jackson and St. Philip in the spring of 1862. He also passed the Vicksburg batteries twice, and participated in the engagement.
with the Confederate ram Arkansas. In 1862 he
was attached to the De Soto; later to the
Wabash; and in 1864—5, to the ironclad Mahopac.
He received command of the Chipewa in 1865, and
took part in the en-
gagement at Fort Fisher and the bombardment of
Fort Anderson. In 1865, while attached to the
Shawmut, he ascended Orinoco river to Ciudad,
Bolivar, and recovered from the revolutionists
2 steamers belonging to an American mercantile
company. The seizure of these vessels formed
the basis of the celebrated Venezuelan claims, which
were settled in Washington in 1895. He was sent
to Ireland with the Constellation loaded with pro-
visions to relieve the famine of 1880, and later had
charge of the Naval Home in Philadelphia.

Pownell, John Wesley, geologist and anthro-
poologist, born in Mount Morris, N. Y., March 24,
1834; died in Haven, Me., Sept. 23, 1902. His
father, a Methodist clergyman, came to this coun-
try from England a few months before the birth of his son,
and held pastorates in Ohio, Wisconsin,
and Illinois. His early schooling was that ordinarily
obtained in a rural com-

munity, and his sci-

cific bent is said to
have been acquired
by association with
an old friend who di-
rected his attention
to natural history.
He studied at Illi-
nois College, and subsequently entered Wheat-
son College, teaching at intervals in public
schools. In 1854 he entered Oberlin, 4\,here, for
two years, he pursued a special course. As he
reached manhood his interest in studies of natu-
ral history increased, and he traversed portions
of Illinois, Iowa, Missouri, and Wisconsin on
foot, making collections of plants, shells, min-
erals, and fossils, which he placed in institutions
of learning in Illinois. The Natural History So-
ciety of Illinois elected him secretary and pro-
vided him with facilities for carrying on his re-
searches. At the beginning of the civil war he
enlisted as a private in the 19th Illinois Regi-
ment, and he received successive commissions
until he became lieutenant-colonel of the 2d Illi-
nois Artillery. He lost his right arm at the
battle of Shiloh, but soon afterward returned to
his regiment and continued in active service until
the close of the war. He accepted the professor-
ship of Geology and the curatorship of the mu-

seum in the Illinois Wesleyan University, Bloom-
ington, in 1865, which he soon resigned to accept
a similar appointment in Illinois Normal Uni-

versity. In the summer of 1867 he organized and
led a geological excursion of American students
to the mountain region of Colorado, and so began
a practise that has since been continued by teach-

ers elsewhere. He remained in the mountains as
an explorer after his party had returned home,
and in 1868 organized a second expedition with
geologic and geographic exploration and re-
search as its chief objects, the necessary funds
for which were furnished by the educational insti-
tutions in Illinois and the Smithsonian Institution.
On this expedition he formed the idea of explori-
g the Grand Cañon of the Colorado, and a year
later he organized a party for that purpose.
When this work was begun it was known that the Colorado river flowed for 700 to 1,000 miles
through walls 5,000 feet high, mostly unsca-

lable; but the nature of the rapids, cascades, and
cataracts in the command of the
antique
the position. The journey lasted more than three months, and
his party passed through numerous perilous ex-
periences, living for a part of the time on half
rations. The success of this undertaking resulted
in the establishment by Congress, in 1870, of a
topographical and geological survey of Colorado
river and its tributaries, which was placed under
his direction, and for several years thereafter
he conducted a systematic survey of the terri-
tory until the Colorado valley, embracing an area
of nearly 100,000 square miles, was thoroughly
explored. This expedition, at first conducted
under the auspices of the Smithsonian Institu-
tion, was transferred to the Department of the
Interior and received the title of the Geological
and Geographical Survey of the Rocky Mountain
Region. At this time the study of the problem
for the utilization of the arid regions of the West
through irrigation attracted his attention, and un-
der his direction a special investigation was
made of the water-supply of Utah. Meanwhile
surveys of the West were in progress under the
auspices of Ferdinand V. Hayden, Clarence King,
and George M. Wheeler, and their ambition to
include the exploration and survey of all of that
region led to rivalry, in consequence of which,
after much controversy, in 1879, the National
Academy of Sciences, through the matter had
been referred, recommended the establishment
under the Department of the Interior of an or-

organization to be known as the United States
Geological Survey. This act took in ef-

fect, abolishing the Hayden, Powell, and Wheeler
surveys, and Clarence King became by presiden-
tial appointment the first director of the new
survey. In 1881 Mr. King resigned the director-
ship of the Geological Survey, and Mr. Powell
became his successor, continuing at the head of
that important work until 1894, when he resigned.
During his administration of the survey he aban-
donied the geographic subdivisions of the work
and substituted a classification based upon func-
tion, creating divisions of topography, general
geography, etc., in which he was associated with
the divisions of paleontology, physics, and
chemistry, and carried the work forward until it
became recognized as one of the greatest scien-
tific bureaus at the world's work. Meanwhile
he became interested in ethnology and brought
about the founding of the Bureau of American
Ethnology, which is regarded as his creation.
Work in this branch of science had previously
been largely discursive and unorganized, but
under his direction definite purposes conformable
to high scientific standards were adopted, and he
attracted to its corps of investigators men of the
highest standing. During the years that he was
director of the Geological Survey he continued
as the nominal chief of the Bureau of American
Ethnology, and in 1892 he returned to the active
charge of that bureau, at the head of which he
continued until his death. He made important
contribution to geology, especially concerning
the stratigraphic structure and areal geology of
the Colorado plateaus and the Uinta mountains.
The scientific study of the arid lands of the West
in relation to human industries is due chiefly to
Mr. Powell, educational institutions for the recovery of the
Western arid regions by the impounding of the
waters is now universally accepted. Of his work
in ethnology the twenty annual reports of the bu-
reau while under his direction are an irrefutable
testimony. In 1892 the French Academy award-
ed him the Cuvier annual prize of 1,500 francs
for the greatest scientific service to the world during the year. This money he promptly re-
ded, in accordance with such prizes
ought to go to meritorious individuals rather
than to governments or government institutions.
Many honorary degrees were conferred upon him,
including that of Ph.D. from the University of
Heidelberg, and that of LL.D. from Illinois Wes-
leyan, Columbian, and Harvard Universities.
In 1880 he was elected to the National Academy of
Sciences, and he was president of the Anthropo-
logical Society of Washington from its organiza-
tion in 1879 to 1888; also of the American Asso-
ciation for the Advancement of Science in 1888.
He was one of the founders of the Cosmos Club of
Washington, and was its first president in
1878. His publications include many scientific
papers and addresses, and besides the many Gov-
ernment reports that bear his name, including
those of the various geological surveys and the
Bureau of American Ethnology, of which he was
chief, he was the author of Exploration of the
Colorado River of the West, 1868-1872 (Washington, 1875); Report
on the Geology of the Eastern Portion of the
Uinta Mountains and a Region of Country Adja-
cent (1870); Report of the 23d of the Arid Region of the United States (1879);
Introduction to the Study of Indian Languages,
with Words, Phrases, and Sentences to be col-
lected (1890); The Goose (1885); Truth and Error (1899); and Good and Evil.
A meeting in his memory was held in the National
Museum, Sept. 20, 1902, when his colleagues ex-
pressed their grief at the loss of a loyal friend
and devoted public servant, a daring explorer, and
an original contributor to the sum of human
knowledge.

Power, Maurice J., jurist and art founder,
born in County Cork, Ireland, Oct. 18, 1838; died
in New York city, Sept. 8, 1902. He came to the
United States with his parents in 1841; learned
the trade of stone-cutting; and in 1868 established
the National Fine-Art Foundry, which subse-
sequently cast many notable pieces of bronze sculp-
ture, including the battle monuments at Trenton
and Princeton, N. J., and the statues of Buffalo,
N. Y., Manchester, N. H., and in many
other cities in the Middle, Southern, and
Western States. Among his other works were the
statues of Columbus, in the Hague, in N. Y., and the
memorial of the capture of Major André at Tarry-
town, N. Y. Mr. Power assisted in the forma-
tion of the Democratic organization that elected
Edward Cooper mayor of New York in 1878, and
was a police-court justice in 1880-90. He was
one of the founders of the County Democracy
in opposition to Tammany, and was its leader
from 1886 till 1890. In 1893 he was appointed
United States shipping commissioner for the
port of New York, which post he held till 1897,
when he was appointed an accredited commis-
sioner. He held the latter post till his death.

Pratt, Charles, musician and composer,
born in Hartford, Conn., in 1841; died in New
York city, Aug. 11, 1902. He was a successful com-
poser of music in Hartford while a very young
man, and after some experience there as organist,
teacher, and leader of an orchestra, he went to
New York and soon made a name for himself as
a pianist, conductor, and composer. At such an age,
he became an organizer and manager of concert
companies, and was very successful. In this field
he was associated at various times with Emma
Jelf, Gilmore's Band, and during one season he was
musical director of Col. Henry Mapleson, the
grand-opera impresario.

Queen, John, actor and minstrel performer,
born in New Orleans in 1860; died in New
York, Feb. 23, 1902. His first appearance was early in
the sixties, when he was the senior member of
The World's Trio—Queen, Stowe, and Randall—
originators of many new short acts suitable for
the variety stage. His ability as a "black-face"
comedian was so marked that soon he had no dif-
culty in finding a place in Haverly's Minstrels,
Thatcher, Primrose and West's Company, and all
the best of the old-time negro minstrel entertain-
ments. He traveled with one or another of these
organizations for many seasons, and was consid-
ered one of the best "end-men" in the business.
He also composed numerous negro melodies and
what are known as "coon songs," some of which
gained great popularity. He had a fine voice, and
sang with taste and expression.

Hafferty, William A., military officer, born
in New Jersey, Feb. 16, 1842; died in San Felipe,
Philippine Islands, Sept. 13, 1902. He was gradu-
atet at West Point and commissioned a 2d lieu-
tenant in the 23d of the 5th Cavalry, and was
promoted 1st lieutenant, May 1, 1866; captain,
May 14, 1868; major, 2d Cavalry, Nov. 20, 1859;
lieutenant-colonel, May 31, 1868; and colonel of
the 5th Cavalry and was breveted with
 distinction in the Indian wars on the frontier,
and was brevetted major, United States army,
Feb. 27, 1880. He was assistant instructor of
 cavalry tactics at West Point in 1872.

Randall, Silas Goodyear, inventor, born in
Cortland, Vt., in 1819; died in Providence, R. I.,
Nov. 21, 1902. He was graduated at Middlebury
College and Andover Theological Seminary,
and preached in the Congregational Church in
Vermont and in Green, N. Y., till his health failed
him, when he gave his attention to inventions,
his chief production being the disk harrow.

Rawson, Albert Leighton, author and artist,
born in Chester, Vt., Oct. 15, 1829; died in New
York city in November, 1902. After studying
law, theology, and art in Albany, N. Y., and
Buffalo, N. Y., Manchester, N. H., and in many
other cities in the Middle, Southern, and
Western States. Among his other works was the
publication of the dictionary, illustrative, Indian
and English; History of all Religions; Statis-
tics of Protestantism; Antiquities of the
Orient; Vocabulary of the Bedouin Languages
of Syria and Egypt; Dictionaries of Arabic, German,
and English; Vocabulary of Persian and Turkish
Languages; Chromatography of Palestine; Historical
and Archeological Introduction to the Holy
Bible; The Unseen World; Stella, and Other Nov-
els; Bible Handbook; History of the Quakers;
History of Mysticism; The Archai Library; and
a translation of The Symposium of Basara. He
also executed more than 3000 engravings.

Reed, Thomas Brackett, statesman; born in
Portland, Me., Oct. 18, 1839; died in Washington,
D. C., Dec. 7, 1902. He was graduated at Bow-
doin College in 1860, taking the prize for Eng-
lish composition, and for the next four years
was a teacher, at the same time studying law.
On April 19, 1864, he was appointed assistant
paymaster of the United States navy and as-
signed to duty on the Sybil gunboat, which
patrolled the Western rivers. He was honorably
discharged Nov. 4, 1865, and was then admitted
to the bar and began practice in the District of
Columbia. In 1868 he was elected as a Republican to the Maine
Legislature, where he almost immediately became
active and influential. He was reelected in 1869, and the next year was elected to the State Senate. The next year he was elected Attorney-General of the State, and in 1874-78 he was city solicitor of Portland. In 1876 he was elected to Congress, and he retained his seat in that body continuously till he resigned it in the autumn of 1889 and entered upon law practice in New York city. He first attracted special attention in Congress by his speech in April, 1878, against a bill to reimburse William and Mary College for damages sustained in the civil war. He was soon known as a brilliant and powerful debater and a stalwart Republican. When Congress assembled in December, 1889, he was chosen Speaker of the House of Representatives. The Republican majority in the House was small, and the minority attempted to prevent the transaction of business by refusing to answer to their names. Speaker Reed promptly decided that a member who was actually present must be recorded as present, and could not be permitted to prevent a quorum by refusing to vote or answering to his name. This raised an issue that was very fiercely discussed; but the Speaker was sustained in every instance, and future inquiry revealed the fact that the same method was being used by members of the parliaments of Europe, with the exception of Portugal; and subsequently, when the Democrats had control of the House of Representatives, the rule established by Speaker Reed was virtually adopted and repeated by them. In his conduct of the business Mr. Reed displayed executive ability of the highest order, and always had command of the House. He was reelected Speaker again in 1895 and 1897. In 1896 he was an aspirant to the Republican nomination for the presidency, and received 541 votes. Mr. McKinley received 6014, Mr. Quay 604, Mr. Morton 58, and Mr. Allison 354. Mr. Reed contributed numerous articles to periodicals and wrote an essay on the art of oratory as an introduction to the volume of Great Orations in the series of the World's Great Books. He was a strong Protectionist, but opposed the expansion policy of the Government in Mr. McKinley's administration. He was a Haytch talker and a brilliant after-dinner speaker, and edited a series of volumes of oratory.

Reed, Walter, born in Gloucester County, Virginia, in 1811; died in Washington, D. C., Nov. 23, 1902. He was graduated at the medical department of the University of Virginia, and became an assistant surgeon in the United States army. He was a bacteriologist of the first rank, was Professor of Bacteriology and Pathology in the Army Medical School, and lecturer on these subjects in Columbia Medical College of Washington. In 1893 he was appointed curator of the Army Medical Museum, in Washington.

Benshaw, Joseph Beresford, inventor, born in Dodge Hill, Heaton Norris, England, July 31, 1822; died in Hartford, Conn., May 4, 1902. He settled in New York in 1847, and later removed to Detroit, and became connected with the Michigan Central Railroad as master mechanic. Still later he removed to Cleveland. He patented a new method of doweling for wood and iron patterns, and a low-heat hardening method for increasing the strength of low-grade iron. Among his improvements was the drafting and divider, a machinist's micrometer depth gage, and a stay-bolt cutter for use in locomotive shops.

Rice, William Henry (William H. Pearl), actor, born in Hasbrouck, N. Y., as "Billy" Rice, died in Hot Springs, Ark., March 1, 1902. He was one of the most famous and popular of the old-time minstrel performers, and had been before the public more than forty years. He made his professional appearance in the Varieties Theater, New York, and soon afterward joined Hooley's Minstrels, with which company he remained several years. In 1874 he assumed an interest in Great Adelphi Theater, Chicago, but it was burned the next year, and he returned to traveling companies, appearing again with Hooley's Minstrels, and with Kelly and Leon's Minstrels, the San Francisco Minstrels, Thatcher, Primrose and West's Minstrels, Cleveland's Minstrels, and Haverly's Minstrels. In some of these companies he owned an interest. Mr. Rice's humor was of a peculiarly unctuous kind, and he never failed to win applause and laughter wherever he appeared. He was one of the highest paid performers in his particular kind of work.

Riddle, Albert Gallatin, lawyer, born in Monson, Mass., May 28, 1816; died in Washington, D. C., May 15, 1902. His father removed to Geauga, Ohio, in 1817, where the son studied law, was admitted to the bar in 1840, and practiced until 1846. He served in the Legislature in 1848-'49; removed to Cleveland in 1850; was elected prosecuting attorney in 1856; defended the Oberlin slave rescue; presiding officer of the parliaments of Europe, with the exception of Portugal; and subsequently, when the Democrats had control of the House of Representatives, the rule established by Speaker Reed was virtually adopted and repeated by them. In his conduct of the business Mr. Reed displayed executive ability of the highest order, and always had command of the House. He was reelected Speaker again in 1895 and 1897. In 1896 he was an aspirant to the Republican nomination for the presidency, and received 541 votes. Mr. McKinley received 6014, Mr. Quay 604, Mr. Morton 58, and Mr. Allison 354. Mr. Reed contributed numerous articles to periodicals and wrote an essay on the art of oratory as an introduction to the volume of Great Orations in the series of the World's Great Books. He was a strong Protectionist, but opposed the expansion policy of the Government in Mr. McKinley's administration. He was a Haytch talker and a brilliant after-dinner speaker, and edited a series of volumes of oratory.

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while head of the department, and also one of the organizers and a member of the faculty of the New School of Mines and of the Mineralogical Science, in the university. His original investigations were in the direction of experimental physics, and in that domain he showed great originality and skill. His special studies pertained largely to matters in mechanics, optics, acoustics, and electricity. He was one of the first to apply photography to the microscope, and the first to take binocular pictures with that instrument. His researches on the nature of the electric spark and the duration of the flashes are particularly interesting, involving the determination of much more minute intervals of time than were ever measured before. In 1880 he devised a mercurial air-pump, giving an exhaustion of 10 torr of an atmosphere, a degree more nearly perfect than had been secured before. The methods of photometry that he originated and his investigations of phenomena that depend on the physiology of vision are very ingenious; and he was the first to make quantitative experiments on color contrasts. His brilliant work on colors led to his recognition as the first authority on that subject, and in recent years his studies in physiological optics led to a new color system and a photometric method that is independent of color. His last published research was concerning regular or specular reflection of Röntgen rays from polished metallic surfaces. His experiments appear to show that a small percentage of these rays may be reflected from polished surfaces, and that they consist probably of two waves, one like the ordinary light, but of shorter length. Prof. Rood painted in water-colors, was frequently represented in the annual exhibitions, and was a member of the American Water-Color Society from its foundation in 1866. He was elected to the National Academy of Sciences in 1865, and in 1867 was a vice-president of the American Association for the Advancement of Science. The degree of LL.D. was conferred upon him both by Princeton and Yale. The results of his many researches are included in about 100 papers that were published in scientific journals both in the United States and abroad, and especially in the American Journal of Science. He was the author of Modern Chromatics (New York, 1881), a work that, besides being theoretical and historical, becomes, with our perception of color, contains the results of numerous original investigations on the subject, and has been accepted as a standard. It is said of him that "he paid little attention to dress and personal adornment, but without any adventitious aid his appearance was striking and drew attention to him as a man of mark. He was absolutely truthful himself, and despised any lack of truthfulness in others; he had the courage of his convictions; he was frank, very frank sometimes, in expressing his opinion of men and matters. He made few advances in the way of acquittance or friendship, and was apt to receive them with reserve. He had warm and devoted friends, and he had acquaintances who had no personal attachment to him; but every one who knew him, or knew of him, respected him and admired his rugged character, his scientific attainments and accomplishments, and his versatility."}

ROUX, Charles Broadway, merchant, born in Woodboro, Md., Feb. 11, 1836; died in New York city, March 3, 1902. He removed with his father to the West when quite young, and entered into business till the war broke out, when he entered the Confederate army and served through the war. He then removed to New York city, and in 1875 began business in a small way for himself, and grew into one of the largest mercantile concerns in the city.

Bunkle, John Daniel, educator, born in Root, N. Y., Oct. 11, 1822; died in Southwest Harbor, Me., July 8, 1902. He was graduated at Lawrence Scientific School in 1831; appointed to the staff of The American Ephemeris and Nautical Almanac, with which he remained till 1884; and was editor of The Mathematical Monthly several years. About 1860, when the Massachusetts Institute of Technology was projected, he was active in interesting the public in the enterprise. He was a member of its first faculty, and, excepting the period 1878, when he was a professor of chemistry, was head of the Mathematical Department till his retirement in 1902, when he was made professor emeritus.

Russell, Sol Smith, actor, born in Brunswick, Me., June 15, 1848; died in Washington, D. C., April 28, 1902. At the beginning of the civil war he ran away from home and tried to join the National army, but was rejected because of his youth. After the departure of the troops, whom he had amused with his songs, jokes, and dances, the manager of the Defiance Theater, of Cairo, offered him an engagement, which he accepted, singing and playing in small roles. After leaving this company he traveled through the smaller Western towns, singing, giving monologues, and playing on various instruments. Later he appeared in larger towns and cities, and after a time he joined the Peake Family of Bellringers, with whom he made extended tours through the United States. He left them to travel with the Berger Company, a similar organization, with which he remained several years. In 1866 he was engaged as low comedian with Ben de Bar's stock company in St. Louis and became, through his acquaintance, with our perception of color, contains the results of numerous original investigations on the subject, and has been accepted as a standard. It is said of him that "he paid little attention to address and personal adornment, but without any adventitious aid his appearance was striking and drew attention to him as a man of mark. He was absolutely truthful himself, and despised any lack of truthfulness in others; he had the courage of his convictions; he was frank, very frank sometimes, in expressing his opinion of men and matters. He made few advances in the way of acquaintance or friendship, and was apt to receive them with reserve. He had warm and devoted friends, and he had acquaintances who had no personal attachment to him; but every one who knew him, or knew of him, respected him and admired his rugged character, his scientific attainments and accomplishments, and his versatility."
Ryer, George W., playwright, born in New York about 1845; died in Brooklyn, N. Y., Nov. 28, 1900. He was the son of Mr. and Mrs. Denman Thompson, of The Old Homestead, and afterward wrote The Sunshine of Paradise Alley, Our New Minister, and The Two Sisters.

Dewey, who was born in Manlius, Ill., April 25, 1845; died in Chicago, Ill., Dec. 23, 1902. He was brought up on a farm; accompanied his parents to Connecticut in 1857; entered Phillips Andover Academy, but left in 1863 to enter the National army; and resigned after three months' service, owing to impaired health; and received a clerkship in Washington, D. C. in 1864, settled in St. Louis, Mo., where he became identified with the lumber and railroad interests of that section. He was a member of the State Legislature in 1871-'73; of the United States Senate in 1874-'75; of the National Republican Committee in 1878-'84, serving as chairman in 1882-'84; and was a delegate to the National Republican conventions of 1872, 1876, and 1880.

Salsbury, Nathan, actor and manager, born in Rockport, Ill., in 1845; died in Long Branch, N. J., Dec. 24, 1902. He joined the 19th Illinois Regiment in 1861, and served throughout the war. He then returned to the West, and, having a fine voice and pleasing presence, decided to become an actor. His first appearance was at Grand Rapids, Mich., in the old burlesque Pocahontas. After further experience with small companies, he joined the Boston Museum stock company, with which he remained four years. He then became a member of Hooley's stock company in Chicago, and while there, in partnership with the late John Webster, he devised the plan that brought him prominently before the public and gained him a fortune. This was the organizing of the company known as Salsbury's troubadours, playing a musical farce-comedy called Patchwork, the first production of its kind in this country. He afterward produced several similar pieces, and traveled for fifteen years, visiting nearly every English-speaking country in the world. After the disbanding of this company, Mr. Salsbury became a manager of the famous six o'clocks. He was the head of the Forepaugh and Sells Circus. In 1883 he met William F. Cody (Buffalo Bill), and with him organized the unique and successful entertainment known as Buffalo Bill's Wild West Show, with which he was thereafter associated as manager until his death.

Sampson, William Thomas, naval officer, born in Palmyra, N. Y., Feb. 9, 1840; died in Washington, D. C., May 6, 1902. He was the eldest son of James Sampson and Hannah Walker, who came to this country from the north of Ireland and settled in Paterson, where they met and were married. It was from his mother that young Sampson inherited his beauty of face, and from her he first learned to spell out the words in the few books that the humble home afforded. As he grew older he attended the district school whenever he had opportunity, and during vacations aided his father in his daily labor—digging ditches, making drains, spading gardens, and doing odd chores for the more prosperous villagers. During one summer, it is said, he earned a dollar and a half a week by working in a brickyard six o'clock in the morning to six at night. Meanwhile, his evenings were occupied in reading, and he borrowed as many books as he could, especially those relating to natural science, mathematics, and languages. While at school he was distinguished by his intense application, a trait that followed him throughout life. Through the interest of William H. Southwick, of Palmyra, Congressman Edwin B. Morgan appointed the young man to the Naval Academy, which he entered in 1857. Among his contemporaries at that institution were George Winfield S. Schley, who was one class ahead of him; Alfred T. Mahan, who was two classes ahead; and Alfred T. Mahan, who was two classes ahead; and and among his own classmates were Bartlett J. Cromwell, John W. Philip, Henry F. Pickering, and Frederick Rogers. At the academy he devoted his attention exclusively to routine duties and studies, and became adjutant of the battalion in his senior year, with the highest honor possible for a cadet. Admiral Philip is quoted as saying, "No matter what the subject of study was—mathematics, French, moral science, or seamanship—Sampson, with invariable regularity, had the perfect marking in his class standing. I remember well the struggle of the three S's—Sampson, Stewart, and Snell. They fought for first place throughout the course, but Sampson came in ahead. He was graduated number one." Mahan describes his personal appearance at that time as follows: "I should not call him handsome, as I remember him then, though the elements of the singular good looks that he possessed in early manhood were all there—an unusually fine complexion, delicate, regular features, and brown eyes remarkable both in shape and color. The smooth, round face struck me as oversmall, and the beauty which in his prime was thoroughly masculine seemed then wanting in strength—a singular misfortune in his case. He was just about as much—or as little—carriage and bearing as the ordinary country lad of his age, emphasized by a loose mixed suit, ready-made and ill-fitting. He owed, therefore, nothing to adventitious external circumstances. The figure, which soon afterward broadened and gathered earnestness and firmness, gave then an impression of slightness amounting to fragility. I remember also that his manner in questioning was not only interesting, but eager, affecting the play of the face; in this differing from the impression usually conveyed by him in mature life, which was one of too great quiescence." On graduating he was assigned as midshipman to the frigate Potomac, and in July, 1862, he was made lieutenant, after which he was appointed to the sailing ship John Adams, then used as a practised vessel for cadets. An officer who was then a cadet says of him at that time: "He was never excited and never hurried, and he never seemed to raise his voice, and yet his orders could be heard distinctly by the men at the weather-earing when reefing topsails." In 1864 he returned to the Naval Academy, where he became instructing officer until six o'clock in the morning of the day during which he was assigned to the ironclad Patapasco and ordered to Charleston to join Dupont's fleet, blockading that city. He participated in the attack on Sumter, and in the battle of Dupont's fleet, driven out of the harbor by the fire
of the forts. He had the watch on the turret roof on the night of Jan. 15, 1865, when the Patapsco ran into a torpedo that hurled her into the air and caused a tremendous explosion. She sank to the bottom of the harbor with most of her officers and men. Sampson, in jumping to the boarding-netting, was caught by his foot in a mesh, and was dragged by the ship's side until she grounded. Instead of struggling frantically, and thereby tiring himself more tightly, he coolly waited his chances, carefully slipped his foot from its entanglement, and was first to reach the shore, "Oh, and his reward," says Mahan, "he was as unaffected, and without effort imperturbed, as though nothing remarkable had occurred." His next assignment was to the Colorado, the flagship on the European station on which he remained until 1867, meanwhile becoming lieutenant-commander in July, 1866. He then returned to the Naval Academy, where he was made an instructor in the department of physics, and in 1869, during the temporary absence of his chief, was head of the department. In 1871 he had special duty on the Congress, and later he served on that vessel on the European station. He was an excellent conductor of a ship's orchestra, and for a time had the alert. In the autumn of 1874, for a third time he was sent to the academy, and for four years he was at the head of the department of physics. At the close of his term he went to Separation, Wyo., with the party under Simon Newcomb, to observe the total eclipse of the sun, July 29, 1878. From 1879 to 1882 he commanded the Swatara on the Asiatic station, and then returned to Washington, where he was made assistant superintendent of the Naval Observatory. His interest in astronomy was considerable, and he was very active in the formation of the American Astronomical Society. From 1885 to 1886 he was superintendent of the torpedo station at Newport, and there became familiar with the practical manufacture of high explosives. During this time he was also a member of the Board of Fortifications and Other Defenses for the Coast. In 1886 he was one of the delegates of the United States at the International Marine Conference in Washington. In September, 1886, he returned to the Naval Academy as superintendent, and for four years he conducted the institution. His impartial fitness for that place was recognized, especially following the incumbency of Admiral Francis M. Ramsey, who had introduced radical and much needed reforms; but he brought to bear upon his work there "the same calm certainty of plan and action which afterward disposed of the Spaniards at Santiago." Prof. Ira N. Hollis has written: "His services in improving the state of training at the Naval Academy can not be overestimated. There were few officers in his squadron (in 1886) who had not met him or served with him in some capacity. It would be difficult to fix the great value of this association during a period when the navy was stripping off its sails and putting on its armor." In his first report as superintendent, he maintained that a practise-ship should be a steam-vessel fitted with the very latest appliances, and not an obsolete sailing vessel or antiquated steam craft. He had long maintained that the line and engineer corps should be specialized at the end of the academic year, and in 1889 Congress acted upon his recommendations. The senior class was separated into divisions every year, and appropriate courses of study were assigned. The work in the succeeding two years of sea duty was also made distinct for line and engineer officers. Target-ship practice in naval and torpedo tactics were introduced. A better state of discipline was reached, for he would never unbend in matters of discipline, and work at the academy began to assume the machine-like precision and regularity for which Sampson was always known. In his history of the Naval Academy, Park Benjamin says: "When Commodore Sampson took command of the Naval Academy ended there remained little for any one else to do, save to keep the standard of efficiency unimpaired." He was promoted captain in March, 1889, and received command of the San Francisco, the first modern steel cruiser, pioneer of the new navy when it was placed in commission, which he then had for two years on the Pacific station. In 1892 he returned to Washington, and was made superintendent of the naval gun factory, and a year later was made chief of the Bureau of Ordnance, which place he held until 1897. Although the building of the gun factory was begun August, 1893, it was still incomplete when he was placed in charge of it, and under his supervision important improvements were made. Every gun built for the navy from 1893 until the beginning of the Spanish War was designed and constructed under his supervision. When made chief of the Bureau of Ordnance he continued the policy of keeping the corps of ordnance for the skill labor which has developed this manufacture, and keep occupied plants which were established solely to meet the Government demands. The general adoption of hard-faced armor by naval vessels occurred during his administration of the Bureau of Ordnance; and he introduced the soft cap for armor-piercing projectiles; the use of electric power for operating turrets and ammunition hoists; telescopic sights, and many other important details. It was also during his administration that the smokeless powder was perfected by experiments at the naval proving-grounds in Newport and in the naval proving-grounds, where in rapid-fire guns its ballistic effects and keeping qualities proved equal to powder accepted abroad as satisfactory. The cap for 6-pounder rapid-fire guns was by his direction put on board ship. As chief of the Bureau of Ordnance he was also a member of the Advisory Board, and the Board of Construction for Building Vessels from 1892 to 1897, and according to Mr. Stayton, "while he had much to do with the general design of all the ships constructed in that period, he had absolute individual charge of the distribution of the battery armor, the turrets, and the barbettes, which enabled him to carry out his idea of giving to our ships an all-round fire, enabling them to be almost as strong when fighting broadside-on as when fighting broadside-on, and in this connection the design and arrangement of the batteries of absolutely every vessel engaged at Santiago (except the Gloucester) was Sampson's personal work. He is also entitled to the credit for the preparation of a new drill book and the establishment of a system of target-practise, which fitted the lines and crews, but also the drill and training necessary for bringing individual vessels together. In substance, therefore, it was Sampson who designed and built the guns; designed and built the projec-
tiles; designed and built the armor; placed the batteries upon the ships and superintended their construction; aided in the preparation of the drill book; drilled the crews and the officers; and finally took possession of the fleet and fought it through a successful war. When he had completed his term as chief of the Bureau of Ordnance, Secretary Long, who has said of him that at that time no man in the active list of the navy had a higher reputation as an accomplished, efficient, competent, all-round naval officer," offered him the post of chief of the Bureau of Navigation upon his appointment he declined, preferring outdoor life and duty, and accordingly was assigned to the battle-ships Iowa, which had been placed in commission in June, 1897, and with which he joined the North Atlantic squadron. He continued as senior captain in that squadron, although two days after the destruction of the Maine, on Feb. 15, 1898, he was appointed president of the board of inquiry charged with the duty of investigating that disaster. This work included taking testimony at Key West of the survivors of the accident, examining the wreck at Cuba, and there, and carefully investigating all circumstances preceding and succeeding the disaster. (See Message from the President of the United States transmitting the report of the Naval Court of Inquiry upon the Destruction of the United States Battle-ships Maine in Havana, being Senate Document No. 207, Washington, 1898.) This service was a trying duty for Sampson was about to return to his command, when Admiral Sicard was found by a medical survey to be physically incapacitated for further duty, and as the next ranking officer in the North Atlantic squadron, Sampson was promptly appointed to its command, with the war rank of acting rear-admiral. According to Capt. Chadwick, who commanded the flagship, "no one was more surprised at this than Sampson himself; this I know to be a fact. The captains of the squadron were unanimously wishing that he might be selected, hoping—rather against hope—that the few months intervening until his promotion to the rank of commodore might not stand in the way. Whatever was said in favor of others was not said by Sampson or with Sampson's knowledge." Secretary Long wrote: "Sampson had been senior captain of the squadron during all its evolutions and practise of the previous year. He possessed the confidence of its crews, was a very high degree, and was undoubtedly their preference. He was familiar with its details, and he had special experience in training in ordnance. To retain him in command was therefore the best thing to do." Mr. Stayton wrote, referring in all probability to the possible war with England in 1894: "If war must come, and all hoped that it would be averted, our ships must be got in order, and there must be a man to command whatever of battle-front our navy could make. According to very high authority, the President [Cleveland] went slowly down the naval list until his finger fell on a name: 'There is the man,' he said. 'He should be the commander-in-chief of our provisional battle squadron.' The man thus honored was William Thomas Sampson. His name was far down the list. 'I will make him a rear-admiral if it ever comes to the point,' said the President." War was declared by the United States on April 21, and at daybreak the naval forces of the North Atlantic squadron—the largest ever commanded by an officer of the United States navy—under Sampson, with the New York as his flagship, sailed from Key West to blockade the northern coast of Cuba, from Cardenas on the east to Bahia Honda on the west—a coast-line of nearly 120 miles. As the sun rose, the first prize of the war, the Spanish man-o'-war named in sight and was captured. The blockade had been in operation for a few days only when the Navy Department learned that a Spanish fleet, under Admiral Cervera, consisting of the Infanta Maria Teresa, Almirante Oquendo, Vizcaya, Cristobal Colon, and the torpedo-boat destroyers Terror, Furor, and Pluton, had sailed, April 29, from the Cape Verde Islands presumably for the relief of Havana. The necessity of discovering and engaging the Spanish fleet as soon as it should appear in American waters became Sampson's principal object. On May 4 he sailed from Key West eastward, and thinking it possible that Cervera had made the harbor of San Juan de Puerto Rico, he reached that port on May 12, but not finding the Spanish fleet there he bombarded the forts, and then returned westward, so as better to intercept the enemy's fleet should Havana be its destination. The information that Cervera was in the harbor was confirmed by Sampson on May 14, but it was not until May 20, while at Key West, according to his own account, that he "learned by cable from Havana that Cervera had sailed on the 19th." Admiral Schley, who had command of the Flying Squadron, with the Brooklyn as his flagship, was at that time on the south coast of Cuba at Cienfuegos, and on March 22 Sampson arrived off that port, and assumed command of the combined fleet, which numbered more than 125 vessels. He established a close and efficient blockade, ordering the harbor to be guarded day and night by the squadrons arranged in a semicircle, 6 miles from the harbor mouth by day and 4 miles by night, and directed that search-lights be thrown into the harbor at night. His first order was: "If the enemy tries to escape, the ships must close and engage as soon as possible, and endeavor to sink his vessels or force them to run ashore in the shallow water or to destroy them. It is not considered that the shore batteries are of sufficient power to do any material injury to battle-ships. On June 3 Hobson made his famous attempt to sink the Merrimac, an act that made the entrance of Santiago harbor, and thus shut in the enemy, a plan that had been contemplated by Sampson as early as May 27, when he prepared orders to be sent to Schley to obstruct the channel by the sinking of a collier. According to Secretary Long: "His sinking of the Merrimac in the channel has been criticized, and yet, had it blocked the channel as intended the Spanish fleet could never have emerged, and would have become ours without destruction by us." Meanwhile, the blockade continued, with bombardments on the fortifications. June 6 and 10, and on June 21 the troops, under Gen. Shafter, arrived off Santiago, and on the day following were landed at Daiquiri. The actions by the land forces at El Cobre and San Juan had driven the Spaniards under Gen. Linares and Toral into the city of Santiago. The time for positive action was rapidly approaching, and Shafter desired the cooperation of the active squadron for the purpose of making an assault on Santiago. The works at Aguadores were bombarded on July 1, and on July 2 the batteries at the entrance of
OBITUARIES, AMERICAN. (SAMPSON.)

the harbor of Santiago were similarly treated. At this time Sampson informed Shafter that it would not be possible to force an entrance into the harbor until the channel should be cleared of mines, a task impossible until the forts guarding the entrance to the harbor could be captured. A meeting had been arranged between the two commanders at Siboney for the morning of July 3; and Sampson, having hoisted the signals "Disregard the action of the commander-in-chief," was on his way to the conference. This order simply meant that the other vessels of the fleet were not to follow him, and did not signify a yielding of the command. Had that been his intention a signal "Second in command take charge," would have been displayed. His own account of the subsequent movements of the New York is: "Shortly before half-past nine we reached a point between 7 and 8 miles east of the Morro. The men were at quarters and the customary Sunday-morning inspection was proceeding, when I suddenly saw from the quarter-deck a puff of white smoke—not black smoke, as a good many have said—rising above the bluff inside the Morro, as if from the Socaqa battery. As I heard no report, I was convinced that the shot was not from the eastern battery, which was directly in the line of our course. I therefore ordered a loud reverberation. The impression was immediate that Cervera's fleet was coming out. I at once sent to the bridge the order: 'Put the helm sport and take headway. I desire instantly to the officer of the deck, without waiting to send it through the commander, as was the custom. Capt. Chadwick hurried on deck, and, without stopping to consult the commanding officer, he ordered the way open to the bridge. Before the flag-ship had turned, a Spanish vessel appeared at the entrance, coming out under full steam. I at once sent for the chief engineer and directed him to light all the furnace fires, which he assured me had already been done by order of the commanding officer. At the same time I distinctly saw that all the blockading ships, which a moment before had been at Sunday inspection, were on the move and had opened fire on the enemy." The return was quickly made. Chadwick, who commanded the flag-ship, was on the bridge, while the commodore was in the cabin, and we stood just a little closer to her off. The farther one at this time got a shot in her boilers from one of our ships, and I shall never forget the wonderful, swift jet of silvery steam, like an ostrich-foot, that leaped 500 feet into the air. Knowing that the Vizcaya and the Colon were still going to the westward, we rushed past the Gloucester and the destroyers, both of which were now clearly out of action. In a few moments we passed the Maria Teresa and the Oquendo. Both showed lurid masses of flame and smoke from the mainmast aft, and the masts were dropping over the bow into the water. But we could not stop with an enemy yet unsurrendered ahead, and quickly coming up with the Indians, between 10 and 11 miles beyond the port, we signaled her to go back and resume the blockade, lest another Spanish ship might come out of the harbor to annoy the transport fleet." With the Brooklyn, Oregon, and Texas, the New York participated in the chase and surrender of the Colon, which brought to an end the long, tedious, and anxious campaign, and the result was announced to the world in Sampson's message to the department as follows: "The fleet under my command offers the nation as a Fourth-of-July present the whole of Cervera's fleet." According to Philip: "It was the blockade that made the battle possible. The battle was a direct consequence of the blockade, and upon the method and effectiveness of the blockade was very largely dependent the issue of the battle. It was necessary to have always before the entrance to Santiago harbor a force of ships amply sufficient to cope with the Spanish squadron should it come out to do battle, and it was necessary to have this force so disposed that none of the Spaniards could escape, if that were their object, no matter which direction they should take. Unremitting vigilance by night and by day was an absolute necessity. Says Mahan: "The methods of the Santiago blockade are now commonly understood, but their precise military merit has scarcely been adequately appreciated." It was the genius of Sampson that "compelled the enemy to accept battle on the terms they considered most disadvantageous." Secretary Long is equally emphatic. He writes: "He had been, from the first till after the victory was won, commander-in-chief in command. He was never out of signal distance of his blockading fleet. He was on duty at the eastern end of the fighting line; and had Cervera gone that way, then by that chance he would have overthrown his fleet. The majesty of the newborn nation was thrown into the line, firing as he went. He has been censured for the despatch announcing the victory. He did not write it; but he assumed it, for he never shirked a responsibility which he knew to be committed. If you will read it you will note that the pronoun 'I' is not in it, and also that it is not unlike Gen. Sherman's announcement of the capture of Savannah. It assumes no credit for Sampson, but gives it to the fleet under his command." It seems to be conceded that Sampson's campaign has "come to be regarded as establishing a standard of efficiency in the handling of a squadron in war. There is no question among these experts as to who earned the credit for the victory at Santiago, and there never has been. The man who wrote it and directed his war into the hands of such a state of preparation must be assured at any hour, day or night, of that long period when the Spaniards cared to take the chances of battle." The omission of the name of Schley, who was second in command, from Sampson's official report of the battle, led to an effort by the friends of the former officer to claim for him the actual command of the squadron during the fight, and a bitter controversy ensued, which continued for three years, when Schley asked for a court of inquiry, the verdict of which was against that officer. Schley, in a despatch to Secretary Long, sent a week after the battle, wrote: "Feel some mortification that the newspaper accounts of July 6 have attributed victory of July 3 almost wholly to me. Victory was secured by force under commander-in-chief of North Atlantic station, and to him the honor is due." Concerning this controversy, Secretary Long said: "I can think of nothing more cruel than a depreciation of the meritorious, faithful, devoted, patriotic commander-in-chief, physically frail, worn with sleepless vigilance, weighed with measureless responsibilities and details, letting no duty go undone; for weeks, sleepless precautions blockading the Spanish squad-
ron; at last, by the unerring fulfilment of his plans, crushing it under the fleet which executed his commands; yet now compelled in dignified silence to be assailed as vindictively as if he were an enemy to his country." Capt. French E. Chadwick, of the United States navy, who was chief of staff to Admiral Sampson, writes as follows and furnishes the accompanying diagram:

There is a very curious misconception about the distance of the New York from the squadron when the enemy came out of Santiago July 3d, which ought to be rectified. This, I think, is very important. It should be remembered that the blockading ships were not less than 4 miles from the entrance and ranged approximately in a semicircle, with 6 to 8 fathoms long, as the ships were drifting about and were frequently considerably farther out than this from their appointed stations. When the New York turned, which was at the instant the smoke of the gun which was fired from Socapa battery at the same time the enemy's flag-ship emerged, she was, as near as can be reckoned, 7½ miles from the entrance. The Gloucester was thus but half the distance from the New York that she was from the Brooklyn. The Indiana was nearer to the New York than to the Brooklyn; the Oregon was a trifle nearer to the Brooklyn than to the New York. To say that the New York was absent from the squadron under these circumstances is, of course, absurd. At the close of the war with Spain Admiral Sampson served as one of the commissioners from the United States to arrange the details of the evacuation of Cuba by the Spaniards, and on the completion of this service he resumed command of the North Atlantic squadron. On Aug. 10, 1898, President McKinley recommended that Admiral Sampson be advanced eight numbers for eminent and conspicuous conduct in battle; but, owing to a popular excitement in favor of Schley, Congress failed to confirm this recommendation. It was the intention of the President to present his name for State. In October, 1899, he was assigned to the command of the Boston Navy-Yard, and he continued in that duty two years. Meanwhile his health, never strong, and probably impaired by the strain of the campaign during the war with Spain, began to fail, and in October, 1901, he was placed on waiting orders. The presidency of Massachusetts Institute of Technology was offered to him in 1900, but he declined it. Harvard and Yale gave him the degree of LL. D. Sampson was retired from active service Feb. 9, 1902, and thereafter remained in Washington, where he made his home until the end, steadily failing from softening of the brain, which terminated in a cerebral hemorrhage. His death was announced in an order issued by the Secretary of the Navy, in which, after reviewing the principal events in his career and quoting "Let me assure you that I have the highest appreciation of your service as a commander-in-chief of the Atlantic naval forces during the Spanish war, in blockading Cuba, cooperating with the army, directing the movements of the great number of vessels under your orders, and at last, after the most effective preparation, consummating, with the gallant officers and men under your command, the destruction of the Spanish fleet," from President McKinley's letter of March 13, 1898, he closed with the following encomium: "This record of lifelong devotion to duty, with its fruitage of splendid achievement, renders his name illustrious in the annals of the navy and places him high on the roll of those who have deserved well of the republic." His funeral surpassed in pomp and ceremony any similar naval service. At the church every de-
partment of the national Government was repre-
resented—the executive by the President and his
Cabinet and many officials of the civil service,
the legislative by Senators and Representatives,
the judiciary by the United States Supreme Court,
and the military and naval services by
officers of all ranks. Then his comrades, led by
Admiral Dewey, laid him to rest at Arlington.
In 1882 he married Miss Susanna Wadsworth,
sloner but straight as a column, and, until
illness bent him down, he looked much taller
than he was. He never seemed strong, but his consti-
It has been said of him that "he was always
dignified and reserved, never pompous or severe.
He never cringed to his seniors, and never was
familiar with his juniors, though he always rec-
ognized their abilities in a quiet way. He nev-
"Admiral Sampson’s first wife was Margaret,
daughter of David S. Aldrich, of Palmyra, N. Y.
Their children were five daughters: Margaret,
who married Lieut. Roy C. Smith of the navy;
Catherine, who married Rev. Donald W. Hill,
son of the navy; Susan Aldrich, who died in
childhood; Hannah, who married Lieut. W. T.
Cluverius of the navy; and Olive, who married
Lieut. Henry H. Scott of the army. Her second
wife was Miss Elizabeth Burling, of Rochester,
?. Y., by whom he had three sons: William, who
died in infancy, Ralph Earle, and Harold Burling.

Saunders, Frederick, librarian, born in Lon-
don, England, Aug. 14, 1807; died in New York,
Dec. 12, 1902. He came to the United States
in 1837, and established a branch of his father’s
London book-selling house for the purpose of
issuing American editions of their own publica-
tions and to seek the protection of an inter-
national copyright law, which failed. Mr. Saun-
der’s title to fame is due to his periodical of the
Evening Post. He was widely known in connection
with the Astor Library, having been assistant li-
brarian in 1839-76, and librarian in 1876-98. He
was a contributor to leading magazines and
time reviews. His separate publications include Mem-
oria of the Great Metropolis, or London from
the Tower to the Crystal Palace (1822); New
York in a Nutshell (1833); Salud for the Soli-
tary by an Epicure (1853); Salad for the Social
(1856); Pearls of Thought, Religious and Philo-
osophical, Gathered from Old Authors (1858);
Mosaic (1859); Festival of Song (1860); About
Women, Love, and Marriage (1868); Evenings
with the Sacred Poets (1869); Pastime Papers
(1865); Story of Some Famous Books (1857);
Stray Leaves of Literature; Memoirs of the Great
Metropolis; Character Studies; Stories of the Dis-
covery of the New World by Columbus, etc. He
was also editor of Homes of American Authors
(1853), and, with Henry T. Tuckerman, Our Na-
tional Centennial Jubilee (1877).

Schoeborn, August, architect, born in Ger-
many about 1827; died in Washington, D. C., Jan.
25, 1909. He was the first architect employed by
the United States government, and was long
employed in Washington, D. C., and entered the
office of the architect of the Capitol, where he re-
mained until his death. During the civil war he
prepared maps and plans for Gen. McDowell, as
well as plans for forts, barracks, hospitals, etc.,
for the quartermaster-general’s office.

Schuetze, William Henry, naval officer, born
in Missouri; died in Washington, D. C., April 4,
1862. He was graduated at the Naval Academy
in 1887; entered the navy as cadet midshipman,
June 21, 1889; promoted to midshipman, May 31,
1873; ensign, July 16, 1874; master, Nov. 30,
1878; junior lieutenant, March 3, 1893; lieuten-
ant, Oct. 2, 1885; and lieutenant-commander,
March 3, 1899. He went on an expedition to the
Lena delta, and brought back the bodies of those
who perished in the De Long expedition. In 1882
he was sent again to Northern Siberia by the
State Department to distribute presents among
the natives in return for their kindness to the
De Long party. He was on duty at the Navy
Department in 1886-87; and was superintendent
of compasses in 1888-89. During the war against
Spain in 1898 he was navigator of the battle-ship
Iowa, and in 1902 he was on duty at the Bureau
of Equipment.

Scott, George Robert White, clergyman,
born in Pittsburg, Pa., about 1842; died in Ber-
lin, Germany, Sept. 9, 1906. He graduated from
Dartmouth College and at Andover Theological
Seminary, and held pastorates in Congregational
churches in Boston, Mass., Newport, N. R., and
Fitchburg, Mass. Later he went to Europe to
study, and settled in Berlin, where he remained
seven years. On his return he became pastor of
the First Congregational Church in Leominster,
Mass., where he remained until 1886. He then
moved to Newton. He was author of The Italian
Renaissance of To-day and a memoir of Prof.
Parker, and a contributor to religious periodicals.

Scribrner, William Marshall, penman, born
in Waterboro, Me., in 1824; died in Chicago, Ill.,
Jan. 15, 1902. He lived many years in Boston;
took an active part in educational work in the
West; and became widely known as the author of
a system of penmanship copy-books bearing
his name.

Scudder, Horace Ellasha, author, born in
Boston, Mass., Oct. 16, 1833; died in Boston,
Mass., Jan. 11, 1902. He was graduated at Willi-
ams College in 1858; for three years he taught
a school in Brooklyn, N. Y., and later edited the
Riverside Magazine of the Evening Post. The
discontinuance of the magazine he became a mem-
ber of the publishing house of Hurd & Houghton,
but presently retired from the business depart-
ment to devote himself to literature and remained
connected with the house after it be-
came the Boston establishment of Houghton &
Mifflin, and from 1890 to 1898 was editor of the
Atlantic Monthly. He wrote much for younger
readers, with whom his books were popular, but
was also known in the wider field of general
literature. His works include Seven Little
People and their Friends (1862); Dream Chil-
dren (1863); Life and Letters of David Cottle
Scudder, Missionary in India (1864); The Game
of Croquet: Its Appointment and Laws (1866);
Stories from my Attic (1869); Doings of the
Bodley Family in Town and Country (1875);
The Dwellers in Five-Sisters Court, a novel (1876);
Recollections of Samuel Breck (edited) (1877);
The Bodleys Telling Stories (1877); The Bodleys
on Wheels (1878); The Bodleys Afoot (1879);
Stories and Romance (1880); Mr. Bodley Abroad
(1881); Boston Town (1881); The Bodley Grand-
children and the, in 1849, later he
removed to Washington, D. C., and entered the
office of the architect of the Capitol, where he re-
mained until his death. During the civil war he
prepared maps and plans for Gen. McDowell, as

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(1884); Men and Letters: Essays in Characterization (1887); The Book of Folk Stories Rewritten (1887); George Washington: An Historical Biography (1889); Childhood in Literature and Art (1894); The Book of Legends told over Again (1899); and James Russell Lowell: A Biography.

He was a frequent contributor to the Atlantic Monthly, but the larger part of his work there appeared anonymously.

Selbert, George C., clergyman, born in Wetter Hessia, Germany, Feb. 23, 1830; died at 73a, Sept. 9, 1902. He studied in Germany; became a private instructor at Wiesbaden; and for two years was professor at a gymnasium in Bakmen. He then became an instructor in Hagerstown, Md. When the civil war broke out this school was closed, and he became pastor of the Third German Presbyterian Church, in Newark, N. J. In 1868, when the German Theological Seminary was established in Bloomfield, Dr. Selbert became Professor of Systematic Theology and New Testament Exegesis. He was editor of the German Volksfreund and of an edition of Schleiermacher's Doctrine of Sin, and was author of Helenism and Christianity.

Selfridge, Thomas Oliver, naval officer, born in Boston Mass., April 24, 1804; died in Waverly, Mass., June 15, 1865; entered the navy as a midshipman Jan. 1, 1818; was promoted lieutenant, March 3, 1827; commander, April 11, 1844; captain, Sept. 14, 1853; and commodore, July 13, 1861; died July 15, 1866; and was promoted rear-admiral on the retired list, July 26, 1870. He served in the West Indies, Brazil, and the Mediterranean; was assigned to the Columbia, the flagship of the East Indian squadron, in 1846; and subsequently to the Dale, of the Pacific squadron. He took part in the capture of Matanzas and Guaymas, and at the latter place was wounded so severely as to be unfit for sea service, and was appointed commandant of the Boston Navy-Yard. In 1861 he received command of the steam frigate Mississippi, of the Gulf squadron, but his wound again disabled him for sea service, and he was made commandant of the navy-yard at Mare Island, California. He continued in active duty for several years after his retirement, as commodore at the Philadelphia Navy-Yard in 1867-'68; president of the Examining Board in 1869-70; lighthouse inspector in Boston; and a member of the Examining Board in New York. In 1877 he was the oldest officer on the retired list. His son, Thomas Oliver Selfridge, Jr., also reached the grade of rear-admiral and was placed on the retired list in 1898.

Seward, Theodore Frelinghuysen, musician, born in Florida, N. Y., Jan. 25, 1835; died in Orange, N. J., Aug. 30, 1902. He studied music under Lowell Mason and Thomas Hastings, and became an organist in New London, Conn., in 1850; and in Rochester, N. Y., in 1859. He re-}

clubs; and was the author of The School of Life (1894); Heaven every Day (1896); Don't Worry (1897); and Spiritual Knowing (1900).

Shepherd, Alexander Robey, administrator, born in Washington, D. C., Jan. 30, 1835; died in Batopilas, Mexico, Sept. 12, 1902. He became a clerk in a store in 1848; later was apprenticed to a carpenter; and in 1852 entered a plumbing and gas-fitting concern, of which he subsequently became a partner and the principal. In 1861 he enlisted in the Washington National Rifles, which opened the road by way of Annapolis and brought to Washington the first troops after the Baltimore riots. After his term of enlistment he gave his attention to beautifying Washington. In 1861 he was elected to the Common Council; in the following year was reelected; later became president of the Board of Councilmen; and in 1867 was appointed a member of the Levy Court.

In 1870 he was elected president of the Citizens' Reform Association, which organized the forces that defeated the regular Republican nominee for mayor and secured the legislation establishing the Territorial form of government for the District of Columbia, and in 1873 was appointed Governor of the District. He planned and carried out the extensive improvements, especially in the construction of avenues, avenues, streets, which transformed the city into a wholesome, beautiful district. Charges of corruption were made against him, and he was derisively spoken of as 'Boss' Shepherd. An investigation failed to sustain the charges, but in 1874 Congress was led to pass an act changing the form of government for the Federal District from that of a Territory to one under the direct Indian squadron, in 1846; and subsequently to the Dale, of the Pacific squadron. He took part in the capture of Matanzas and Guaymas, and at the latter place was wounded so severely as to be unfit for sea service, and was appointed commandant of the Boston Navy-Yard. In 1861 he received command of the steam frigate Mississippi, of the Gulf squadron, but his wound again disabled him for sea service, and he was made commandant of the navy-yard at Mare Island, California. He continued in active duty for several years after his retirement, as commodore at the Philadelphia Navy-Yard in 1867-'68; president of the Examining Board in 1869-70; lighthouse inspector in Boston; and a member of the Examining Board in New York. In 1877 he was the oldest officer on the retired list. His son, Thomas Oliver Selfridge, Jr., also reached the grade of rear-admiral and was placed on the retired list in 1898.

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general of volunteers in May, 1861, and majorgeneral in March, 1862; commanded, beside Corps of the Army of Virginia in the line of operations beginning with Cedar Creek and ending with Manassass; and in June, 1863, received command of the Pennsylvania Reserves and organized a corps of 10,000 men to aid in repelling Lee's invasion. He fitted out an expedition that operated under Gen. George Crook in the Kanawha valley, and led a smaller one of 7,000 men through the Shenandoah valley against Lynchburg and Staunton, but was defeated by Gen. John C. Breckinridge at Newmarket. He was the first man relieved of his command, and in June, 1864, was put in charge of the division guarding Harper's Ferry. In May, 1865, he resigned his commission and returned to journalism in Baltimore. He died in London, England, in 1824; died in Holyoke, Mass., Feb. 8, 1902. In 1845 he engaged in the silk business in Northampton, Mass. He became a partner in the firm of Varan & Skinner in 1848; and began business for himself in Williamsburg, Mass., in 1851. His works here were entirely swept away by the great Mill river flood in 1854. In October of the same year he began again in Holyoke. He built a gymnasium for Dwight L. Moody's school in Northfield, Mass.; was a frequent benefactor of Vassar, Smith, and Mount Holyoke Colleges; and was president of the Manufacturers' Association of Holyoke and of the local city hospital. Smith, Charles Henry, military officer, born in Hollis, Me., Nov. 1, 1827; died in Washington, D.C., Aug. 7, 1895. He was a brigadier-general, United States army, March 13, 1865. After the war he entered the regular army as colonel of the 28th Infantry; was transferred to the 19th Infantry March 15, 1869; and was retired from active service Nov. 1, 1891. During the civil war he took part in 68 engagements, and was wounded three times. He received his brevet of major-general of volunteers for gallant and meritorious services during the war. He was a brigadier-general, United States army, March 2, 1867, for similar services at Sailor's Creek, Virginia, and that of major-general, United States army, the same day for gallant services during the war. Smith, James E., actor and theatrical manager, born in Schenectady, N. Y., in 1846; died in New York, Jan. 28, 1902. He made his first appearance when he was twenty-one years old, and for many years played humorous rustic characters with great success. He originated and acted numerous roles of this kind, and took a prominent part in the production of The County Fair. In the days of the old stock companies he often appeared as Ezekiel Homespun in The Heir at Law, and for several seasons he acted in Hoyt's A Milk-White Face, and was one of the leading comic characters in many other companies. But although he achieved distinction as an actor, it was as a manager that he became most prominent in the theatrical world. In 1892 he engaged Barton Hill and Josephine Cameron on an extended tour of the West Indies with great pecuniary success. Returning to New York from this trip, he engaged the late John E. Owens for a starring tour of thirty-six weeks, at a salary of $350 a week, in a play called Cook's Corners, written by Mr. Smith himself. This play was not successful, and as soon as the enterprising manager realized that it was a failure, he promptly revived several of Mr. Owens's famous old plays—Solon Shingle, etc.—and through their popularity and his own good management he closed the season with a profit. Mr. Smith was the discoverer of Sisierette Jones, the negro soprano known as the Black Patti. He met her shortly after the conclusion of his tour with John E. Owens, while he was organizing a company of negro singers for a West Indian tour. Miss Jones applied for an engagement, and when he heard her remarkable voice and learned she had made a valuable discovery and immediately engaged her. He gave a private concert at Wallack's Theatre, New York, that the best critics of music might hear her sing. The concert was a great success, as was also the tour in the West Indies. Spalding, John Franklin, clergyman, born in Belgrade, Me., Oct. 31, 1831, died at Rio, Pa., March 9, 1902. He was educated at Bowdoin College, and after studying for the Episcopal ministry in the General Theological Seminary in New York city was admitted to the priesthood in 1858. He served as missionary at Oldtown, Me., in 1867-79, and was rector of St. George's parish, Lee, Mass., in 1869-90. He was an assistant at Grace Church, Providence, R. I., 1860-91; and for a short time at St. John's Church in the same city. From 1862 to 1873 he was rector of St. Paul's Church, Erie, Pa., and in December, 1873, was consecrated bishop of what was then the missionary diocese of Colorado. On the organization of the diocese, in 1887, he continued in office as bishop. He was a forceful, active man, with great abilities as an orator, and under his administration the diocese of Colorado has prospered greatly. Bishop Spalding's writings include Modern Infidelity (1862); A Manual for Mothers' Meetings on the Catholic System (1880); The Higher Education of Women (1886); The Catholic Church and its Apostolic Ministry (1887); The Threefold Ministry of the Church of Christ (1889); The Pastoral Office (1889); The Best Mode of Working a Parish (1889); and Jesus Christ the Proof of Christianity (1890). Spear, James, manufacturer, born in Mauch Chunk, Pa., Feb. 17, 1827; died in Wallingford, Pa., Jan. 30, 1902. He removed to Philadelphia in 1848, and engaged in the manufacture of stove. He patented many inventions, among them the anti-clinker grate, which is now in general use; and also made the first successful ear-heater, which is used on the principal railroads in the United States. He took an active interest in the Blind Men's Home; was one of the incorporators of the Hayes Mechanics' Home; and aided many institutions, especially the University of Pennsylvania. Spencer, Lily Martin(e), painter, born in southern France, Dec. 10, 1811; died in New York city, May 22, 1902. She was of French parentage,
came to the United States when five years old, and settled in Marietta, Ohio. While still a young girl she showed such marked talent for art that Nicholas Longworth, of Cincinnati, offered to send her abroad to study, but her parents refused the proposition because Mr. Longworth insisted that she should study from the old masters and abstain from all original work for a period of years. On her marriage to the late Benjamin Spencer she removed to New York city, where, under the patronage of Mr. Longworth, she opened her first studio. For many years she had a studio in Newark, N. J., and after the Centennial Exposition she removed to a beautiful spot overlooking the Hudson, with the foothills of the Catskill mountains in the distance. Her early painting included the Height of Fashion and The Height of Might, both of which were engraved by Schaus and had a large circulation. Other works were Old-Time Music and The Greek Slave. Her most ambitious completed painting was an allegory entitled Truth Unveiling Falsehood, which won a gold medal at the Centennial Exposition in 1876. She painted portraits of Martin Van Buren, Stephen A. Douglas, and Gen. Grant, McClellan, and Sherman, and a few minutes before her death she was putting the finishing touches on a portrait of the late Robert G. Ingersoll. Notwithstanding her advanced age, Mrs. Spencer had sketched out a work designed to be the largest and most striking of all her artistic efforts. It was to symbolize the Nineteenth Century, and was planned to show about 200 life-size portraits of the most distinguished persons of that period. She spent the greater part of her later years in her beautiful home on the Hudson. The accompanying portrait is from a photograph of a clay bust made by her daughter, the only likeness of the venerable painter in existence.

Sprague, Amasa, manufacturer, born in Cranston, R. I., about 1825; died in Conescut Heights, R. I., Aug. 4, 1902. He was employed in his father's calico-print factory till 1845, when, with his brother William, he assumed the management of the business, and in a short time the brothers had three plants in Rhode Island, one in Baltic, Conn., and another in Kennebunk, Me. The elder Sprague was the first to manufacture calico prints in the United States. The Sprague brothers also organized the Rhode Island Frear Stone Company for the manufacture of artificial sandstone. In 1873 business reverses occurred, and the great calico plants passed into other hands.

Stanley, David Slocne, soldier, born in Cedar Valley, Wayne County, Ohio, June 1, 1828; died in Washington, D. C., March 19, 1902. He was descended on his father's side from Nathaniel Stanley, who served as a private in the Lexington Alarm, and on his mother's side from Conrad Peterson, who was a private in the Virginia Continental line. In 1848 he was appointed from Ohio to the United States Military Academy, where he was graduated in 1852, entering the army as 2d lieutenant in the 2d Dragoons and serving in the cavalry on the Western frontier until 1861, when he was made captain. Owning to his Virginia ancestry, he was offered a high commission in the Confederate army, but this he promptly declined. His first service was in Missouri, where he gained the appointment of brigadier-general of volunteers on Sept. 28, 1861. Gen. Stanley took part in the successful operations against Island No. 10 and New Madrid, was in the siege of Corinth, the battle of Farmington, and the battle of Iuka, and became chief of cavalry of the Army of the Cumberland in November, 1862. He participated in the battle of Stone River, receiving the brevet of lieutenant-colonel, U. S. A., for his services on that occasion, and was promoted to major-general of volunteers. He also participated in the Middle Tennessee campaign, and was active throughout the Atlanta campaign, being in all the principal battles of that movement, including Kennesaw Mountain, the siege of Atlanta, and the attack on Jonesboro, where he commanded the 4th Army Corps. On Oct. 6, 1864, during the absence of Gen. Thomas, he retook effect in the command of the Army of the Cumberland, and by his energy and skill did much for the successful defense of Nashville, also participating in the engagement at Spring Hill, where he repelled three desperate assaults of the Confederates in cavalry and infantry, and in the battle of Franklin, where, after the Union line had been broken and defeat was threatened, he led a charge that resulted in the recovery of the ground that had been lost. Although severely wounded, he refused to leave the field until the battle was won, and for his services on that occasion he received the medal of honor and the brevet of major-general in the regular army. During the remainder of the civil war he was incapacitated for further services by his injuries, and on Feb. 1, 1866, was mustered out of the volunteer service, and made, on July 28, colonel of the 22d Infantry. His subsequent service was in the West, where he participated in campaigns against the Indians. On March 24, 1884, he was promoted brigadier-general, and soon afterward was made commander of the Department of Texas, where he remained until June 1, 1892, when he was retired. Subsequently, from 1893 to 1896, he was governor of the Soldiers' Home in Washington. Gen. Stanley was president of the Society of the Army of the Cumberland, and of the Army and Navy Club of Washington, and a member of the Society of the Sons of the American Revolution.

Stanton, Elizabeth Cady, reformer, born in Johnstown, N. Y., Nov. 12, 1815; died in New York city, Oct. 28, 1902. She was the daughter of Daniel Cady and widow of Henry B. Stanton. (For a sketch of Mr. Stanton's life, see Annual Cyclopaedia for 1887, page 613.) She was graduated at Johnstown Academy and at Emma Wil-
lard's Seminary in 1832, and was married in 1840. In 1846 she removed to Seneca Falls, N.Y., and two years later she issued a call for the first woman's congress and began the woman-suffrage movement. She addressed the New York Legislature on the rights of married women in 1854, and in advocacy of divorce for drunkenness in 1860. In 1866, believing women to be eligible for public office, she offered herself as a candidate for Congress. For twenty-five years she annually addressed a congressional committee in favor of an amendment to the Federal Constitution granting enlarged privileges to women. Mrs. Stanton was president of the National Woman Suffrage Association in 1865-93, and honorary president of the Woman's Loyal League in 1861. In May, 1869, she was elected by the state women to the Woman's Suffrage Convention held at Washington, D.C., April 10-11, 1869. She was graduated at the Central High School, Philadelphia, in 1852, and became a draftsman and engraver. In 1868 he invented and patented a double graver. Turning from his profession Mr. Stockton, in 1867, when he was 21 years of age, joined the staff of the Philadelphia Post, and in 1870 that of the newly established Hearth and Home in New York. A little later he was on the staff of Scribner's Monthly. In 1873 Stockton was associated with the Riverside Magazine and other periodicals, and his first publication in book form was a collection of these with the title Ting-a-Ling Stories (1870). He soon made a reputation as a writer of humorous stories, his first success for older readers being the Rudder Grange Stories (1879). The complete list of his published books is as follows: The Ting-a-Ling Stories (1870); Roundabout Rambles (1872); What Might Have Been Expected (1874); Tales out of School (1875); Rudder Grange (1879); A Jolly Fellowship (1880); The Floating Prince (1881); The Story of Viteau (1884); The Lady or the Tiger, and Other Stories (1884); The Late Mrs. Null (1888); The Christmas Wreck, and Other Stories (1888); The Casting away of Mrs. Lecks and the Girl at the Helm (1887); The Hundredth Man (1887); The Bee Man of Orn, and Other Fanciful Tales (1887); The Du- santes (1888); Amos Kilbright, and Other Stories (1888); Arta Claverden (1889); The Great War Syndicate (1889); The Dear Burglars (1889); The Merry Chanter (1890); The Squirrel Inn (1891); The House of Martha (1891); The Rudder Grangers Abroad, and Other Stories (1891); Kobol Land (1891); The Clocks of Rondaine (1892); The Watchmaker's Wife, and Other Stories (1893); Fanciful Tales (1894); Pomona's Travels (1894); The Adventures of Captain Horn (1885); A Chosen Few (1895); Stories of New Jersey (1896); Mrs. Cliff's Yacht (1890); Captain Chap or the Rolling Stones (1890); A Story-Teller's Pack (1897); The Great Stone of Sardis (1898); And the Cobbler's Dog (1897); The Associate Hermits (1898); The Vio- zier of the Two-Horned Alexander (1899); The Young Master of Hyson Hall (1899); Aself and Alot (1900); A Bicycle of Cathay (1900); Kate Bonnet (1902); and John Gayther's Garden, and the Stories Told Therein (1902). He left an unpublished novel entitled The Captain's Tollgate. His most original achievement was the Tiger, the title of which has become almost proverbial. This story was dramatized as a comic opera and produced with success on the New
his own. He was a skilful and accomplished editor, with a marked individuality of mind; every impulse was kindly, every opinion or criticism appreciative; and his conversation abounded in the same humor that secured popularity for his published work. He lived several years near Morristown, N. J., but a few years ago bought a fine old place, Claymont, in Jefferson County, West Virginia, and made it his home. For portraits see Nineteenth Century, Oct. 4, 1892.

Stoetzter, Wilhelm, soldier, born in Allstedt, Germany, about 1843; died on Governor's island, New York, April 20, 1902. He was educated at Leipzig; joined the Prussian army for service in the war against France, and participated in numerous engagements, including Metz, Worth, Sedan, and the siege of Paris. After the war he came to the United States and enlisted in the regular army; and was assigned to the 12th Infantry. He remained in the army till his death. He was also a distinguished linguist and musician, and was the official interpreter of every command to which he was attached while in the American army.

Stromberg, John, musician, composer, and orchestra leader, born in Potsdam, Prussia, May 26, 1842; died in Freeport, Long Island, July 5, 1902. At a very early age he showed marked talent for composing music, and received a thorough musical education. He traveled several seasons in Canada with various theatrical companies, and then came to the United States, leading orchestras in theaters in different cities and composing many songs that caught the public fancy. In 1866, after finishing a long engagement as orchestra leader for Andrew Mack, the singing Irish comedian, he became the musical director at the famous vaudeville theater of Weber and Fields in New York city. Here, with an extraordinarily fine company to bring his songs before the public, he composed all the music for the brilliant burlesques given at that theater. None of his compositions failed to achieve success, and soon after they were heard in New York they were played, sung, and whistled all over the country, so great was their peculiarity.

Swayne, Weger, military officer, born in Columbus, Ohio, Nov. 10, 1834; died in New York city, Dec. 18, 1902. He was graduated at Yale University in 1856; studied at the Cincinnati Law School; was admitted to the bar in Ohio and began practice in Columbus. At the outbreak of the civil war he raised the 43d Ohio Infantry and was made its major; was promoted lieutenant-colonel, Dec. 14, 1861; colonel, Oct. 18, 1862; brigadier-general, March 8, 1865; major-general, June 20, 1865; and was mustered out Sept. 1, 1867. After the war he was transferred to the regular army, and was commissioned colonel of the 45th Infantry, July 11, 1870. He served under Gen. Sherman in the Atlanta campaign, and at Salkahatchie, S. C., he received a wound that caused the amputation of his leg. Shortly after the war he was made Military Governor of Alabama. He established the first school for negroes in the South at Talladega. After his retirement from the regular army he returned to Ohio and practised law in Toledo till 1880, when he removed to New York city, where he formed the firm of Dillon & Swayne, which later became Swayne & Swayne. He was for many years general counsel for the Western Union Telegraph Company, the Wabash Railway Company, the Associated Press, and other corporations.

Thompson, Hugh Miller, Episcopal clergyman, born in County Londonderry, Ireland, June 5, 1830; died in Jackson, Miss., Nov. 18, 1902. He removed with his family to the United States in 1836, received a common-school education obtained in Caldwell, N. J., and was graduated at Nashotah Theological Seminary in 1852, and was ordained priest in 1856. He was successively rector of Grace Church, Madison, Wis., and Church of the Nativity, Maysville, Ky., and after his ordination to the priesthood was rector of St. James's Church, Portage, Wis., and St. Matthew's, Kenoshu, Wis., 1856-59; Grace Church, Galena, Ill., 1859-66; assistant rector of St. Paul's Church, Milwaukee, 1866-70; rector of St. James's Church, Chicago, 1870-71; Christ Church, New York city, 1871-75; Trinity, New Orleans, 1875-83. In addition to the duties of his profession he was Professor of Church History at Nashotah Seminary, 1860-70, and for seven years editor of the Church Journal, in New York, continuing his editorial labors after removing to New Orleans. In 1883 he was consecrated bishop-coadjutor of Mississippi, and he became bishop of that diocese on the death of Bishop Green in 1887. He attended the Lambeth Conference in 1888, and preached in St. Paul's Cathedral, Westminster Abbey, and before Oxford University. His published books include Unity and its Restoration (1860); Sin and its Penalties (1862); First Principles (1868); Absolution (1872); Cycles of Discourses on Several Social topics; editorial papers (1872); Is Romanism the Best Religion of the Republic (1873); The World and the Logos (1880); The World and the Kingdom (1888): The World and the Wrestlers (1885); The World and the Man; More Copy (1897). Many sermons by him were issued separately, and he often contributed to pamphlet controversy.

Torrey, Henry Augustus Pearson, educator, born in Beverly, Mass., Jan. 8, 1837, and died there, Sept. 20, 1902. He removed to Burlington, Vt., in boyhood, and was graduated at the university there in 1858. He was graduated at Union Theological Seminary, New York, in 1862, and in 1865, and became pastor of the Congregational church in Vergennes, Vt. In 1868 he was made Professor of Intellectual and Moral Philosophy in the University of Vermont, and he occupied that chair continuously thirty-four years, being at the time of his death, in point of service, the oldest member of the faculty. From 1888 to 1893 he had charge of the university. He received the degree of LL.D. in 1896. He contributed to the Andover Review a series of articles on The Theodicee of Leibnitz (1885) and...
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published The Philosophy of Descartes (1892). He was a fine English scholar, a graceful public speaker, had a gift of quiet humor, and invariably won the love of his pupils by his serene temperament and sympathetic instruction. The periodical published by the undergraduates of the university says of him: "He wore his learning and his honors so modestly; he was so gracious and cordial, without losing the dignity which was natural to him; his personality in all ways was so attractive and inspiring, that his going from among us begets no ordinary sense of loss. His ripe and accurate scholarship, his power of logical analysis and construction, his courtesy in discussion, his wisdom in counsel, the serene poise of his whole character, mental and moral, gave him a standing among us which would be claimed for no other member of the teaching staff, and made us all—faculty and students—proud of our ranking professor, and glad to work with and under him. Everybody appreciated the transparent and strong, yet affable, grasp of his English, his charm, his breadth of mind. His ready and quick penetration, his deep perception of things, his rapid comprehension of problems, the breadth of his culture and learning, the rare sense of humor which seasoned his earnestness, the serene, genial, and peaceful manner of his character—it was a pleasure to be in his company.

URSO, Camilla, violinist, born in Nantes, France, June 13, 1842; died in New York, Jan. 20, 1902. She was the daughter of Salvator Urso, a Sicilian flautist and organist of considerable renown, and early showed her inherited love of music. When she was six years old she expressed a wish to learn to play the violin, and a year later she made her first appearance as a soloist at a concert. Her success was instantaneous, and she was hailed as a prodigy. She entered the Paris Conservatoire, where she studied three years, practising ten hours a day. After leaving the Conservatoire, she played in concerts in Paris at the Salle Gaveau, and became a member of the Société Polytechnique and the Association of Musical Artists. She was then eleven years old, and her remarkable performances aroused the greatest admiration and curiosity among musicians and critics and the public in general. In 1852 the young virtuosa came to this country and appeared under the auspices of the Germania Society, creating a great sensation in musical circles. The next season she played in six of Mme. Albini's concerts, and in December, 1853, she became the violin soloist of Mme. Sontag's concert company. Camilla Urso married Frederick Luere before she was twenty years old, and for several years did not appear in public. In 1863 she played at a Philharmonic concert in New York, and so enthusiastically was the greeting she received that she decided to continue her professional career. She made a tour of the world, winning admiration and exciting wonder wherever she appeared, and was considered the most wonderful woman violinist who had ever been heard. At her funeral the famous violin of the great artist was placed upon the coffin.

Victor, Mrs. Frances Auretta (Fuller) (Barrett), poet and historical writer, born in Rome, N. Y., May 23, 1826; died in Portland, Ore., in November, 1902. She began to write for the newspapers at the age of fourteen, and her latest publication, a volume of poems, was issued in 1900. She was educated at a seminary in Wooster, Ohio, and with her younger sister, Metta Victoria, published in 1851 Poems of Sentiment and Imagination, with Dramatic and Descriptive Pieces. She married Judson Barrett, of Michigan, in 1853, who died a few years later, and in 1862 she married Henry Victor, an engineer in the United States navy, a brother of her sister's husband. After this second marriage Mrs. Victor removed to the Pacific coast. Her pen had been laid aside for several years prior to this event, but she now resumed it, contributing to the newspapers of San Francisco and Sacramento, as well as to the Overland Monthly from its start. Mrs. Victor was the author of The River of the West (1865); Life and Adventures in the Rocky Mountains and Oregon (1870); All over Oregon and Washington (1870); The New Penelope and Other Stories (1871); and chapters on Oregon and other States to Bancroft's Pacific Coast Histories.

Wallace, Martin Beuben Merritt, jurist, born in Urbana, Ohio, Sept. 29, 1829; died in Chicago, Ill., March 6, 1902. He was graduated at Rock River Seminary, studied law, and was admitted to the bar in Ohio in 1859, when he removed to Chicago to practise. In 1861 he was commissioned major of the 4th Illinois Cavalry, and served as a captain in the 1st Illinois Cavalry. In the war he was assigned to duty in the 6th Illinois Cavalry, and was a member of the privates' regiment, which was appointed for "to take his men on a scout," which meant permitting the bringing into the Union lines of a quantity of cotton for speculators. The suggestion was denounced with characteristic vehemence. After the war he returned to Chicago and was appointed assessor of internal revenue. While he held this office the whisky men offered him $20,000 a month, to be paid privately to his wife, "as long as he would keep his eyes shut." When his most intimate friend was made acquainted with the intended corruption and asked him what course he intended to take, Mr. Merritt said, "I am going to look." In 1868 he was elected county judge, and he held that post eight years; later he became attorney for the county board, and was United States judge for forty years, and police magistrate thirteen years.

Ward, John Elliott, diplomatist, born in Sumbury, Ga., Oct. 2, 1814; died in Dorchester, Ga., Nov. 30, 1902. He entered Amherst College in 1831, but left on account of the indication there manifested against Virginians after the imprisonment of two Cherokee missionaries. He then studied law and was admitted to the bar in Savannah. He was solicitor-general of the Eastern District of Georgia in 1836-38; United States district attorney for Georgia in 1838; member of the Georgia Legislature in 1839, 1843, and 1853, being speaker of the latter; mayor of Savannah in 1854; president of the National Democratic Convention that met in Cincinnati in 1856; Lieutenant-Governor of the State and president of the State Senate in 1857; and United States minister to China in 1858-61. In the latter year he resigned in consequence of the adoption by Georgia of the ordinance of secession, although he was strongly ever against that measure. In January, 1866, he removed to New York city.

Warden, David Adams, musician, born in the Tower of London, England, in 1815; died in Philadelphia, Pa., Feb. 6, 1892. In his early years
he was organist in several Protestant Episcopal churches. He composed a book of chants which attained considerable popularity, and also the music for many patriotic songs that were sung by both armies during the civil war, among them 'The Flag's come back to Tennessee.' He also wrote the words and music of Mother, Don't Weep for your Boy, and music for Tell me, ye Winged Winds.

Warren, George William, organist and composer, born in Racing, Wis., in 1829; died in New York, March 16, 1902. He showed great ability in music from an early age, and when he was twenty-three years old he obtained the place of organist at St. Peter's Protestant Episcopal Church in Albany, N. Y. Later he became the organist at St. Paul's Church, in the same city. He went to New York in 1870, and soon entered St. Thomas's Protestant Episcopal Church as organist, remaining there until 1900. He was a composer of hymns and anthems that came into wide use in churches of many denominations, besides considerable secular music that also won popularity. In 1887 he received the degree of doctor of music from the University of Leipzig. The last remembrance of him was held in his honor at St. Thomas's on the completion of his twenty-fifth year as organist of that church, and in 1900, after thirty years' service, he retired as "organist emeritus" from the place he had held so long. He was also Professor of Music at Columbia University, New York, for many years.

Wenckebach, Carla, educator, born in Hildesheim, Germany, Feb. 14, 1853; died in Boston, Mass., Dec. 29, 1902. She was educated at the Girls' High School in Hildesheim, the Normal School at Hanover, and the universities of Zurich and Leipzig; taught in England, Belgium, Russia, and New York; and became Professor of German in Wellesley College in 1883, which post she held till her death. She was one of the most distinguished German instructors in the United States, and had won a high reputation as teacher, editor, and author. With her sister, the late Helen W. Schrakamp, she published many books on the German language, and was editor of German literary works, including a collection of the best German songs. Among her works are: Deutsche Grammatik (1891); Deutsch- und Geschichtsbuch (1891); Deutsches Lehrbuch (1891); German Composition (1890); etc. She was editor of Die schönsten deutschen Lieder (with her sister, 1886); Meissner's Aus meiner Welt (1889); Die Meisterwerke des Mittelalters (1893); Scheffel's Eckkard (1893); Scheffel's Trompet von Sakkingsen (1895); Dahn's Ein Kampf um Rom (1800); and Schiller's Maria Stuart (with Margarethe Muller, 1900).

Wernle, Henry, inventor, born in Germany about 1831; died in Philadelphia, Pa., May 20, 1902. He was educated in Germany; came to the United States in 1852; and entered the Government service at the Frankford arsenal as an inventor and maker of delicate mathematical instruments. During the civil war his services were of great value on account of the many inventions of gun-sights that he perfected. The manner of tempering his instruments was a secret that Mr. Wernle carefully guarded. Although often urged to impart the information to others, he never did so, and the secret died with him.

West, William H., actor and minstrel performer, born in Syracuse, N. Y., June 18, 1833; died in Chicago, Feb. 15, 1902. He made his first appearance when a boy as a singer and dancer in a Buffalo concert-hall. His cleverness attracted attention, and he was soon engaged to travel with P. T. Barnum's circus, and after that with Skiff and Gaylord Minstrels. In 1869 he formed a partnership with George H. Primrose, another well-known minstrel performer, whom he had known as a boy, and this business contract lasted thirty years. Together they appeared in Simms and Slocum's Minstrels in Philadelphia, and in 1873 the partners went to New York, and first appeared there at the old Olympic Theater, Broadway, near Houston Street. In the season of 1874-75 they became members of J. H. Haverly's Minstrels, and traveled with that company three seasons. At the end of this engagement they organized a minstrel company of their own, calling it Barlow, Wilson, Primrose, and West's Minstrels. In 1882 the personnel of the management changed, and the company took the name of Thatcher, Primrose, and West, appearing under that title for seven years, after which Mr. Thatcher left the company, which was thereafter managed by the two well-known companies West's Minstrels and West's Minstrels. The organization was for a long time the finest and most popular in the business, and drew immense audiences all over the country. In 1898 the long partnership was dissolved. Mr. West desired to have his company appear without blackened faces, and to add many accessories and stage settings before unknown in minstrel performances; while Mr. Primrose clung to "black-face" minstrelsy, with all its old traditions. They parted amicably, and Mr. West organized another company, calling it West's Big Minstrel Jubilee, and to it devoted the later years of his life, with great success. He usually appeared on the stage as "middleman" or interlocutor, but occasionally acted as "endman." His voice was remarkably sweet, and he was tall, well-built, and a graceful dancer. He accumulated a handsome fortune and owned a fine property at Bensonhurst, Long Island. Mr. West was married several times, and had a daughter, Miss Fay Templeton, the popular actress, from whom he was divorced; his second wife was Lizzie Morris, who died soon after their marriage; and his third was Flk (with Josepha Schrakamp, 1884); Deutscher Anschauungs-Unterricht (with her sister, 1886); Deutsches Lesebuch (with her sister, 1887); Deutsche Literaturgeschichte (1891); German Schriften (1896); German Composition (1899); etc. She was editor of Die schönsten deutschen Lieder (with her sister, 1886); Meissner's Aus meiner Welt (1889); Die Meisterwerke des Mittelalters (1893); Scheffel's Eckkard (1893); Scheffel's Trompet von Sakkingsen (1895); Dahn's Ein Kampf um Rom (1800); and Schiller's Maria Stuart (with Margarethe Muller, 1900).

Whipple, William Denison, military officer, born in Nelson, N. Y., Aug. 2, 1826; died in New York, April 1, 1902. He was graduated at West Point and commissioned a second lieutenant in the 3d Infantry, July, 1851; was promoted 1st lieutenant, Dec. 31, 1856; captain and assistant adjutant-general, Aug. 3, 1861; major, July 17, 1862; lieutenant-colonel, March 3, 1875; and colonel, Feb. 28, 1887; and was retired Aug. 2, 1890. In 1851 he was assigned to duty in the Indian frontier, and took part in the Navajo and Gila expeditions, and also in the defense of Fort Defiance, New Mexico. On Feb. 10, 1862, he was commissioned a lieutenant-colonel in the volunteer service; on Sept. 6, 1864, was promoted brigadier-general; and on Jan. 15, 1866, was honorably mustered out of that service. He took part in the battles of Bull Run, Chattanooga, Missionary Ridge, Resaca, Kenesaw Mountain, and Nashville and the siege of Atlanta; and was brevetted brigadier-general and major-general, U. S. A., for gallant and meritorious services during the war. After the war he was on duty as assistant adjutant-general at Washington, and in the subsequent years of the principal military divisions, and in 1873-'81 as aide-de-camp on the staff of the general commanding the army.
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Whitehead, William Biddick, physician, born in Virginia about 1832; died in Denver, Colo., Oct. 15, 1902. He was graduated at the University Military Institute in 1851, and studied medicine at the Universities of Virginia and Pennsylvania, and subsequently in Paris and Vienna. While in Vienna he was appointed a surgeon in the Russian war, and was stationed at Sebastopol during the siege of that city. For his services he was made a knight of the Imperial Order of St. Stanislaus. He resigned his post of staff surgeon in the Russian army after five months' service; returned to Paris to resume study in the hospitals; and settled in New York, where he became Professor of Clinical Medicine in New York Medical College. In 1861 he entered the Confederate army, and was commissioned chief division surgeon. After the war he returned to New York city to practice, and later removed to Denver, Colo. He established the department of medicine in the Universities of Colorado and Denver.

Whittle, Francis McNeece, clergyman, born in Mecklenburg County, Virginia, July 7, 1823; died in Richmond, Va., June 18, 1902. He was graduated at the Theological Seminary at Alexandria in 1847, and in 1848 was ordained priest. He was rector of St. James' Church in what is now West Virginia in 1847-'49; of St. James' Northam Parish, Goochland County, Virginia, in 1849-'52; of Grace Church, Berryville, Va., in 1852-'57; and of St. Paul's Church, Salisbury, Ky., in 1857-'68. In 1868 he was consecrated Assistant Bishop of Virginia, and he became bishop of the diocese in 1876, on the death of Bishop John Weight. When the Southern church was expelled from Virginia in 1877, Bishop Whittle chose to remain in charge of the eastern diocese, which in 1892 was still further reduced by the organization of the diocese of Southern Virginia. At his death, however, the diocese, even with the loss of two-thirds of its former territory, was far stronger than at the time of his consecration. Bishop Whittle received the degree of D.D. from the Theological Seminary of Ohio in 1867, and L.L.D. from William and Mary College in 1878. In his theology the bishop was strongly evangelical.

Wilson, Joseph Miller, lawyer, born in Adair County, Kentucky, Feb. 8, 1826; died in James-town, R. I., Sept. 7, 1902. He was educated at Knox College, Illinois, studied law, and was admitted to the bar in 1850. He served in the 4th Iowa Infantry as 1st lieutenant and adjutant; was promoted lieutenant-colonel, March 9, 1862; colonel, March 18, 1862; and brigadier-general, Jan. 13, 1865; and was brevetted major-general of volunteers, March 13, 1865. He participated in the battles of Pea Ridge and Chickasaw Bayou, the siege of Vicksburg, and the capture of Savannah. After the capture of Savannah he received command of the military district of Missouri, where he remained till the surrender of Gen. Lee's army. After the war he resumed law practice; was commissioner of the United States General Land Office from 1876 till 1881; and afterward land commissioner and general solicitor of the Atlantic and Pacific Railroad Company and its president.

Wilson, Joseph Miller, engineer, born in Phoenixville, Pa., June 20, 1838; died in Philadelphia, Pa., Nov. 24, 1902. He was graduated at M. I. T. in 1858, and was appointed an assistant engineer of the Pennsylvania Railroad in 1860, and was connected with that road till 1886, during which time he served as resident engineer of bridges and buildings. In 1876 he was associate engineer and architect on the designing and construction of the Main Exhibition Building and Machinery Hall for the Centennial Exposition. He served on the commission that condemned the Washington Aqueduct, and on the one that recommended the underground-railroad system now under construction in New York city. He was president of Franklin Institute, member of many technical and scientific papers and reports.

Wilton, Ellen (Mrs. Thomas C. Doremus), actress, born in Albany, N. Y., in 1862; died in Whitestone, Long Island, July 20, 1902. Her father, John Leonard, moved to San Francisco while she was very young, and when she was only fourteen years old she joined a traveling theatrical company, where her talent and personal beauty soon won her advancement to important roles. She made an extended tour through the West, playing principal parts in mining-camp theaters long before she was twenty years old, and after a few seasons of that hard experience she was engaged as leading lady in the California Theater, San Francisco, where she remained seven years, winning great popularity and appearing in support of most of the celebrated actors of that time who visited the West. At the end of this long engagement she went to Europe in 1889 and remained there two years; on her return to the United States she was engaged by Manager A. M. Palmer for his Union Square Theater Company, and she made her first New York engagement at the Lyceum Theater, in the comedy called French Flats. She was a member of this company several seasons, and left it to play leading support in the Italian tragedian Charles Santini, with whom she traveled two seasons. She appeared in Charley's Aunt during its long run at the Standard Theater, New York city, and after that she joined the Frohman forces and played in one or another of their companies till 1900, when she originated the role of Queen Margaret in A Royal Family, with Annie Russell as the star, the Lyceum Theater. During that season she injured her foot and was compelled to leave the company. She never again appeared on the stage, but lived at her Long Island home until her death.

Winner, Septimus, composer and publisher of music, born in Philadelphia, May 11, 1827; died there, Nov. 23, 1902. He composed the famous song Listen to the Mocking Bird in 1864, which became a great favorite for many years, and also What Is Home without a Mother? which was almost equally popular. He wrote a song entitled Give us back our Old Commander, which made a great sensation when it appeared, and very nearly involved the author in trouble with the Government, as it referred directly to the removal of Gen. George B. McClellan from his command of the Army of the Potomac in 1862. The War Department issued an order forbidding actors or any other persons to sing it in public, on pain of imprisonment; and Mr. Winner, who asserted his innocence of intending anything treasonable in writing the song, was notified that his further publication of it would result in his confinement in Fort Lafayette. Besides his songs, he wrote and published numerous books of technical instruction for various musical instruments. In his earlier years he was a frequent contributor of verse to the American Monthly Magazine, as well as the founder of the Musical Fund Society of Philadelphia. His last work was The Cogitations of a Crank.
June 1, 1902. He removed in 1871 to Rochester, where he studied law and was admitted to the bar in 1875. He then became associated with Eugene H. Satterlee. This firm continued in practise till November, 1893, when Mr. Yeoman was appointed an associate justice of the Supreme Court of New York, which post he held till Jan. 1, 1895. He then resumed practise with his former associate and Joseph W. Taylor, and that relation continued till Mr. Yeoman’s death. He was for many years a member of the Board of Managers of the State Industrial School and a trustee of the Rochester Orphan Asylum.

Young, Eliza Bland, actress, born in London, England, May 31, 1812; died in the Actors’ Home, West New Brighton, Staten Island, N. Y., Aug. 10, 1902, being then the oldest actress in the United States. She made her first appearance in 1822, at the Adelphi Theater, London, in a play called Scotch Valley. After a brief experience on the stage she returned to school for five years, and then reentered theatrical life. She traveled through England and other countries, playing soubrette and juvenile roles for several seasons, supporting at various times Gustave Brooke, Mr. and Mrs. Charles Kean, Ira Aldridge, and other stars. She was a member of the rival Robinson stock company for five years. In 1844 she married William Watkins Young, an English actor-manager, and in 1856 she came to the United States. She made her first appearance in this country, in June 4, 1857, at Providence, R. I., as Mrs. Lillywhite in a comedy entitled The Forties and Fifties. During the thirty years following she appeared in many stock companies of this country, and another supported nearly every prominent theatrical star of the American stage. She was the original Tabitha Stork in Lester Wallack’s Rosedale, and acted in the first American productions of The Ticket-of-Leave Man, The Serious Family, East Lynne, and the New Magdalen. Her last appearance was in the season of 1886, at the age of eighty-seven, when she appeared as the Third Witch in Macbeth at the Fifth Avenue Theater, New York city, supporting Mrs. Langtry.

Zimmermann, Adolph, actor, born in Germany, 1870; died in New York, Feb. 22, 1902. He received his early dramatic training in the court theaters of his native country, and became a favorite in leading roles. In 1900 he came to the United States and organized a stock company of German-American actors, and in 1903 he took the managing directorship of the Irving Place Theater company as its leading man. He soon won the same popularity with German-American audiences that he had enjoyed in his own country. He was a highly accomplished and versatile actor, and aside from his professional work, he became very well known in some of the best German clubs and societies in New York.

Obituaries, Foreign. Abel, Sir Frederick Augustus, English chemist, born in 1827; died in London, Sept. 26, 1902. The family, of Swedish origin, had produced men notable in science, music, and painting. He entered the Royal College of Chemistry as one of Hofmann’s first pupils, and was soon promoted to an assistant. In 1851 he became Professor of Chemistry at the Royal Military Academy, Woolwich. In 1854 he was appointed chemist to the War Office, which post he held until 1888, when he was retired by the civil-service regulations. In these thirty-four years he made his most important contributions to the chemistry of explosives. His work on the use of gun-cotton as an explosive, which was summarized in a paper printed in the Philosophical Transactions of 1868 and in the Bakerian Lecture printed in the same journal for the succeeding year, was perhaps his most important contribution to science. He showed how gun-cotton, previously regarded as dangerous and inefficient, could be safely handled and prepared of constant composition, and indicated its great value as an explosive agent. He also did important work, in conjunction with Sir Andrew Noble, on the chemical changes that result from firing gunpowder. In 1888 he was appointed chairman of the Government Committee on Explosives. As the result of a series of experiments conducted under its auspices, “guncotton,” an explosive containing both gun-cotton and nitro-glycerine, was patented by Abel and Dewar, and soon became the standard explosive of the country. In connection with the petroleum acts of 1868 and 1879 he devised an apparatus for determining the composition and giving off inflammable vapor which is still in general use. He took a leading part in establishing the Imperial Institute. He was elected a fellow of the Royal Society in 1860, and received a royal medal in 1887 for his researches on explosives. He was knighted in 1883, and the K. C. B. was conferred on him in 1891. He was president of the British Association for the Advancement of Science in 1890, and of the Iron and Steel Institute in 1891.

Acton, John Emerich Edward Dalberg-Acton, Baron, English historian, born in Naples, Italy, Jan. 1, 1834; died at Tegernsee, Bavaria, June 19, 1902. He was the son of Sir Richard Acton, inherited his large English property, and remained with his mother until he was sent when not yet ten years of age to the Catholic school at Oscott, of which Dr. Wiseman was the president. After completing the course of four years at Oscott, he entered the College of Catholic influence, visited often by the Oxford converts, he read with Dr. Logan, a priest in Edinburgh who had been a Protestant, and who when prepared the living Place Theater company as its leading man. He soon won the same popularity with German-American audiences that he had enjoyed in his own country. He was a highly accomplished and versatile actor, and aside from his professional work, he became very well known in some of the best German clubs and societies in New York.

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of the Church vowed upon him on account of his opposition to ultramontanism. While the Concordat was being settled in 1870 he learned from leading bishops who took part and revealed in letters to the München Allgemeine Zeitung the phases and vicissitudes of the contest and the moves and combinations of parties. After the Vatican decree was issued he still maintained his opposition to ultramontanism and adduced historical reasons in the public press. From 1859 till 1865 he sat in Parliament for Carlow. Although he made no mark as a speaker, he influenced Gladstone and helped to shape the policy that rent the Liberal party asunder. He was returned for Bridgnorth in 1865, but was seated on a scrutiny. In that year he married a daughter of Count Arco Valley, by whom he had a son, Richard, now Lord Acton. In 1869 he was raised to the peerage as Baron Acton of Aldenham. He sold the castle of Henresheim and crippled his English estate to gather together 60,000 volumes that are documents of the religious, political, and social history of Europe. Although he had notes and references by the boxful, covering every phase and movement of modern history, some rare articles in his published writings. He could discourse in conversation lucidly, with profound conviction and astonishing accuracy of memory, on the whole political and social evolution of Europe. Yet when he took the pen to write historical and literary allusions clogged his style and a striving for exactness of statement obscured it with strange phrases. Although not widely read, he was recognized as the most learned and scientific of British historians, and in 1885, having just previously held a place at court for three years, he was appointed Regius Professor of History at Cambridge, where he put into practice methods of investigation and study more thorough and conscientious than had before been introduced in England. Andrew Carnegie purchased Lord Acton's library some years before the latter's death and left it for his use in his fireproof building at Aldenham. After Lord Acton's death Mr. Carnegie gave it to John Morley to keep in the bestow where he saw fit, and Mr. Morley presented it to the University of Cambridge.

Adamson, Robert, Scottish philosopher, born in Edinburgh in 1832; died in Glasgow, Feb. 6, 1902. He won the highest honors at Edinburgh University, and after continuing his studies at Heidelberg he returned to become assistant professor, leaving the university again in 1876 to succeed Stanley Jevons as Professor of Logic and Philosophy in Owens College, Manchester, where he remained till in 1893 he was elected Professor of Logic at Aberdeen University, where he went to Glasgow in 1895 to fill the chair of Logic and Rhetoric. He wrote a treatise on the Philosophy of Kant, and the article on him in the Encyclopedia Britannica, also articles on English philosophers and on logic and the mind, and had in preparation when he died a book on Kant and the Modern Naturalists, and one on the History of Psychology. He was an active promoter when at Manchester of the Victoria University and at Glasgow in obtaining the extension of the session and the fuller educational equipment of the university.

Albert, King of Saxony, born in Dresden, April 23, 1828; died in Sibyllenort, June 19, 1902. He was the son of Crown-Prince Johann and Princess Amalia of Bavaria. He entered the Saxon army in 1843 and studied in the university of Bonn, which he left to join his regiment when the revolution broke out in 1848. As captain of artillery he distinguished himself at the storming of the redoubts of Dippel in the Schleswig-Holstein campaign of 1848. After his father became King in 1854 he took a prominent part in civil and military affairs, and in the Austro-Prussian war of 1866 he was commander-in-chief of the Saxon army. He left Saxony undeterred to concentrate in Bohemia with the Austrian force of Gen. Clam Gallia, whose unsuccessful stand at Gittschin enabled the Prussians to bring the campaign to a quick termination four days later at Königgratz, where Crown-Prince Albert with his Saxons stubbornly held the left of the Austrian position against Gen. Herwarth von Bittenfeld's Army of the Elbe until after Gen. Benedek's Austrian army was defeated and rendered helpless by the capture of the key of the position at Chlum by the Prussian Crown Prince. When Saxon was absorbed in the North German Federation Prince Albert remained in command of the Saxon forces, henceforth known as the Saxon corps and officers designated as the 12th North German Corps. He led them in the Franco-German War, and so distinguished himself by turning St. Privat and capturing its garrison that his only pupil his Bois des Bou- gnon to turn the tide at Gravelotte that it was placed in command of the army of the Maas, composed of the united Prussian guard corps, with a cavalry division of the Bois des Bou- gnon to turn the tide at Gravelotte that it was placed in command of the army of the Maas, composed of the united Prussian guard corps, with a cavalry division of the Bois des Bou-
nouncing the suzerainty of Turkey over Tunis, which had been in existence since 1575, though not acknowledged by any recent times. When the French invaded Tunis Ali Bey, who was the commander-in-chief of his brother's troops, offered no serious resistance, and was one of the first to accept the terms proposed, using all his influence to obtain the willing submission of the tribes and employing his troops to force the rebellious to submission. Coming to the throne at the beginning of the French régime, he loyally yielded up all political and financial control and used his great influence and royal authority to prevent any check to the innovations of civilization and foreign government. The French on their part left the relations between Musalmans entirely in his hands, so that he was still a Mohammedan monarch, dispensing justice and charity and governing the people in their social and religious life according to the laws of Islam. In his palace he fed over 700 persons. His physical and mental vigor declined in his later years. Sidi Musa, his son and successor, who was forty-six years of age when his father died, has often sojourned in Paris, and is the first Bey able to speak French.

Arnold, George Benjamin, English organist and composer, born in Petworth, Sussex, England, Dec. 22, 1822; died in Winchester, Jan. 31, 1894; in 1841 he became assistant organist at Winchester Cathedral. He was twice recipient of a pension from the Civil List of £100. Be-
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Sides Festus (1839), he published The Angel World, and Other Poems (1830); The Mystic, and Other Poems; and The Age of Colloquial Satire (1858); The International Policy of the Great Powers (1861); and The Universal Hymn (1868). Barall, Gen. du, French soldier, born in 1829; died in Neuilly, Jan. 24, 1902. He was a part of the president of the island, and after obtaining an education at Codrington College, Barbados, he was admitted to the priesthood of the Anglican Church in 1844. A short curacy at Holy Trinity Church, Port of Spain, Trinidad, 1845—44, was succeeded by the incumbency of several years of St. Michael's parish, Diego Martin, in the same island, and for six years of this period he was chaplain to the English forces there. He then passed a short time in England, holding brief curacies in London, but in 1853 became rector of St. Peter's, in the island of St. Kitts. In 1860 he was made Bishop of Sierra Leone, but he resigned his see in 1869, and, going to England, was successively minister of Berkely Chapel, London, 1869—70; rector of Wootten, Kent, 1870—73; and vicar of St. Peter's, Bethnal Green, London, 1873-1902. He was then incapacitated for active parish duty for several years preceding his death. In 1877—82 he was supervising Bishop of the Episcopal churches in Scotland.

Belcredi, Count Richard, Austrian statesman, born in 1823; died in Gmünden, Dec. 3, 1902. His family had been prominent in Austrian politics for several generations, and he had a brilliant administrative career, becoming Statthalter of Bohemia in 1864. In the following year he was made Prime Minister of Austria, and was the leader of the Feudal Conservative element, which promoted the federal system in Austria, and was placed at the head of the Government appointed to carry out this plan, but the defeat of the Austrian army brought the centralist German party once more into power. His ministry was signalized by the suspension of the Constitution. The disastrous war with Prussia had for its result the return to a constitutional régime and the compromise with Hungary. Belcredi retired in 1867. In 1891 he was recalled from obscurity by the post of president of the Court of Cassation. His destructive and reactionary methods as a judge caused him to be removed. His later years were spent in the country, in the service of agrarian justice and as a historian. He died at Gmünden, Dec. 3, 1902.

Bennett, Alfred William, English botanist born in London, England, in 1835; died Jan. 25, 1902. He received his education at University College, London, and for many years was a lecturer on botany at St. Thomas's Hospital, London. He published (with G. Murray) a Handbook of Cryptogamic Botany (1889) and a valuable Flora of the Alps (1896).

Bennigsen, Rudolf von, German politician, born in Lüneburg, July 10, 1822; died Aug. 6, 1902. He studied law and entered the Hanoverian civil service in 1846, resigning his office in 1857 to take a seat in the lower chamber of the Diet, where he joined with Dr. von Miquel in founding the German National Union with the object of realizing the federation of the German states under the headship of Prussia with a strong constitutional Central Government. He endeavored to avert the annexation of Hanover to Prussia in 1866 by a declaration of neutrality, and after the incorporation was accomplished he strove all the harder to bring the German states into the German Union with popular parliamentary institutions, and the National Liberal party of which he was the leader extended its activity and organization to all parts of Germany. The German Federation was constituted in 1867 he was elected to the North German Reichstag and to the Prus-
sian House of Deputies, of which he was president from 1875 till 1879. The National Liberals supported Prince Bismarck's policy in all matters tending to strengthen and consolidate the empire, while defending the parliamentary system for Prussia as well as for the German Empire. In December, 1877, Bismarck invited Bennigsen to take a portfolio in the Prussian ministry, but he would not unless other Liberals were included and the policy of the Government modified. In 1886 he was appointed president of the province of Hanover. This office he resigned in 1897, and a year later he retired from the Reichstag, in which he had been a conspicuous and honored leader from the beginning.

Bentley, John Francis, English architect, born in Doncaster, England, in 1839; died in Clapham Common, March 2, 1902. At the age of fifteen he made a beautiful model of the old parish church of his native town. This church was soon afterward destroyed by fire, and on the occasion of its rebuilding young Bentley was placed in the office of the clerk of the works, his architectural education, in effect, beginning at this time. He began architectural practise on his own account in 1862, and the year after was executed for Roman Catholic patrons. His most notable design is the Roman Catholic cathedral at Westminster, on the site of the former Milbank Prison, of edifice of colossal proportions, its nave being the widest of any in England. It is a strikingly original conception, the treatment, according to the requirements of his commission, being Romanesque; the exterior was left practically complete at the architect's death, save for the carving intended and the contemplated octagonal lantern of the lofty tower. The interior was very incomplete. Other works by this architect include the church and convent of the Immaculate Conception, at Becking, Essex, in early middle pointed style, opened in 1899; the churches of the Holy Rosary, at Watford; Corpus Christi, Brixton; and St. Mary, Kensal Green; Beaumont College, near Windsor; and the great Roman Catholic cathedral in Brooklyn, New York. He died at his residence, No. 67, Southwark, London, on Jan. 1, 1902, his death having occurred before it was received. Bentley was most emphatically an all-round architect; in all his commissions he designed and directed everything from foundation to smallest detail of decoration.

Bloch, Jean de, Russian reformer, born in Warsaw in 1832; died there, Jan. 7, 1902. He was a Polish Jew who became one of the largest builders of railroads in Russia, and a prosperous banker. In his leisure time he studied the modern works on political economy and evolved the theories of his own in support of which he gathered a mass of historical and statistical evidence. The economic waste and the demoralization and deterioration of society caused by war attracted his attention, and then the scarcely less injurious effect of modern armaments in hindering progress and crippling the productive energy of European peoples, and he concluded that the armies and navies which were prepared for great wars, and which the great powers were still increasing, had already reached such a magnitude and the death-dealing weapons such a development that no government could, for fear of destruction, lay down the armed peace for fear that destruction might befall its army, involving the fate of the whole nation, and that if a great war did result it would wipe out the fruits of centuries of civilization. Hence he pleaded for the arms and reduction of the costly armaments which hem back progress in the peaceful arts and general well-being, and argued in favor of total disarmament and the abolition of the system of the nation in arms. His theories and the evidence on which they are based were published in six large volumes entitled La Guerre. The Emperor was impressed with this work, in the preparation of which M. de Bloch spent eight industrious years, and he called the author into consultation before he made the proposals, prefixed by a suggestion of the limitation of armaments, which resulted in the Peace Conference in the summer of 1899. M. de Bloch was present at The Hague, and, although he was not a delegate, he had little influence in bringing the conference to a successful issue by stimulating and encouraging with his enthusiasm the members who were in favor of arbitration. His work in abridged compass was published in English in 1900 under the title of Modern Weapons and Modern War.

Bonehill, Besse (Mrs. William Seeley), English actress and singer, born in England in 1837; died in Portsea, England, April 12, 1892, her success was in her own country when she was a child, and she was a favorite there for many years. In 1891 she came to the United States, appearing in vaudeville performances in New York city under the management of Tony Pastor. Her success was immediate, and she soon became as popular here as in England. After her engagement with Mr. Pastor she went to London for two seasons, returning to the United States in 1893, under the management of J. J. Rosenthal, in a piece called Playmates. After this she appeared for several seasons throughout the States in musical comedy, burlesque, and vaudeville. She made a specialty of singing songs that told a romantic or pathetic story, and she nearly always sang them in picturesque male costume, illustrating the story in a dramatic and effective way. Her voice was a wonderfully rich and powerful mezzo soprano, and her face and figure were strikingly suited to the part of an impromptu speaker, and as an actress she had a charm that was as peculiar and original as it was potent. Her last appearance in this country was in the play at Hyde and Bel, but his death, which occurred before it was received. Bentley was most emphatically an all-round architect; in all his commissions he designed and directed everything from foundation to smallest detail of decoration.

Booth, Sallie, English actress, born in London in 1839; died in Sydney, Australia, in March, 1902. Miss Booth was a line descendant of Barton Booth, the famous tragedian of Addison's day. She made her first appearance in 1843 at the benefit of her aunt (also Sallie Booth), at Drury Lane Theater, London. She appeared as Rosalind in As You Like It at the Haymarket Theater before she was twenty, and received high praise from Douglas Jerrold and other celebrated critics. At various periods she played as the support of Charles Keen, Charles Mathews, and other distinguished actors. In 1891 Miss Booth left Great Britain for the first time, to play in Jamaica, and finding traveling to her taste, she afterward made many tours to all parts of the world where English is spoken. In 1893 she played in Calcutta and Hong-Kong, and in numerous other Eastern cities. She traveled in the Orient four years, going as far inland as the Ic, to break the armed peace for fear that destruction might befall her army, involving the fate of the whole nation, and that if a great war did result it would wipe out the fruits of centuries of civilization. Hence he pleaded for the arms and reduction of the costly armaments which hem back progress in the peaceful arts and general well-being, and argued in favor of total disarmament and the abolition of the system of the nation in arms. His theories and the evidence on which they are based were published in six large volumes entitled La Guerre. The Emperor was impressed with this work, in the preparation of which M. de Bloch spent eight industrious years, and he called the author into consultation before he made the proposals, prefixed by a suggestion of the limitation of armaments, which resulted in the Peace Conference in the summer of 1899. M. de Bloch was present at The Hague, and, although he was not a delegate, he had little influence in bringing the conference to a successful issue by stimulating and encouraging with his enthusiasm the members who were in favor of arbitration. His work in abridged compass was published in English in 1900 under the title of Modern Weapons and Modern War.

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to Jones, in which play she also appeared in New York in 1900. Later in that year she went with Charles Arnold’s company to Australia, where she was playing at the time of her death from the bubonic plague, which swept that country.

Botha, Christian, Boer soldier, born in the Transvaal; died in Kokstad, Griqualand West, Oct. 3, 1909. He led the Boer forces towards the Transvaal at the beginning of the Transvaal war, and bore a prominent part in the investment of Ladysmith and the defense of the Tugela crossing. When the line was forced at last and Ladysmith relieved, he helped to hold the Biggarsburg, and retreated afterward with the rest of the Transvaalers to Laing’s Nek, where his brother Louis Botha, the commandant-general, left him in command of the Boer forces on the Natal border on departing to defend the approaches of Pretoria against Lord Roberts. Chris Botha delayed Gen. Bulter’s advance several days by opening negotiations with him. After the fall of Pretoria he was assigned to the command of all the Boer forces in the southeastern part of the Transvaal, and by his raids into Zululand he created a diversion that enabled his brother and De Wet to prolong the conflict.

Bousfield, Henry Brougham, English prelate, born in 1832; died in South Africa, Feb. 10, 1905. He studied at Cambridge, and after taking orders in the Church of England in 1855 was curate of All Saints’ Parish, Braishfield, Hampshire, 1871-74; vicar of Stockbridge, Hampshire, 1874-81; vicar of Andover, Hampshire, 1870-78. In February of the last-named year he was consecrated Bishop of Pretoria, South Africa. During all his troublous years of his episcopate Bishop Bousfield kept aloof from politics; and after the outbreak of the South African War in 1899 he rendered many timely services to the English refugees. He published Six Years in the Transvaal (1886).

Brames, John, English philologist, died in Clevedon, Somerset, England, May 25, 1902, at the age of sixty-five. He was educated for the Indian colonial service at Haileybury College, and after being employed many years in the Punjab and Bengal, was appointed magistrate in the latter in 1854. He was Circuit Judge of the Bengal division, and subsequently he had charge of the Bhagalpur and presidency divisions. He was president of the Police Revision Committee in 1876. During all his troublous years of his episcopate Bishop Bousfield kept aloof from politics; and after the outbreak of the South African War in 1899 he rendered many timely services to the English refugees. He published Six Years in the Transvaal (1886). Bousfield, Henry Brougham, English prelate, born in 1832; died in South Africa, Feb. 10, 1905. 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win, he seems to have thought it incumbent upon him to perpetuate a kind of hereditary feud. His son, who was also arift in those days, was educated at a school in which he could take part in the activities of the school and where he could develop his own interests.

Sir William Ewart, English author and army officer, died in London, April 10, 1902. He received his lieutenant's commission in 1884, and was promoted to a captaincy in 1890. He was the author of the "The Mind of War; The Army from Within; The Coming Waterloo; and Lord Roberts as a Soldier in Peace and War.

Cailan, Philip, Irish politician, born in County Louth in 1837, died in Dublin, June 13, 1902. He was called to the Irish bar in 1865, and was elected to Parliament for the borough of Dundalk in 1888, when Isaac Butt was the Irish leader. Mr. Cailan pleaded for the amnesty of Fenian prisoners. Charles Russell contested Dundalk unsuccessfully in 1870, successfully in 1874, whereupon Cailan sought and won election as county member. When Charles Stewart died in 1881, he began a policy of obstruction Mr. Cailan hesitated only a short time before casting his lot with the new leader. His parliamentary experience and ready knowledge of the workings of the Government made him the most formidable of the obstructionists. In 1888, when the franchise had been extended, the soundness of his political principles was called in question, and he was rejected by the Nationalist Convention. Nevertheless he determined to stand in opposition to Philip Nolan, whom Mr. Parnell came to support with his authority and eloquence after the former and Parnell stoned. Cailan was badly defeated. He contested North Louth again in 1892, supported by the Parnellite rump, against Timothy Healy, McCarthyite candidate, and was beaten again. In 1896 once more he strove in vain to reenter Parliament.

Cassati, Gaetano, Italian explorer, born in Lombardy, in 1839; died at Como, March 7, 1902. He entered the Italian army as lieutenant in 1859, fought through the campaign of 1866, and retired with the rank of captain in 1870. In 1893 he undertook commercial explorations. He traveled through the Bahr el Gazal into the Niam-niam and Monbouctu countries, returning in 1893 with many scientific curiosities, which he sold at Lado, where he helped efficiently to defend that place against the Mahdists until, in 1885, it became untenable, when Capt. Cassati went south to Wadelai, where he hoped to open up friendly relations with Kabarega, King of Unyoro, and get letters through to the Europeans in Uganda. Kabarega showed a friendly disposition toward Emin and Casati, and the latter was in Unyoro in December, 1887, when Henry M. Stanley approached with a relief expedition. When the expedition inflicted severe losses on the Masai-ben warriors, subjects of Kabarega, who contested the passage through their country, the black King's feelings changed toward his guest, whom he held responsible for the invasion. Cassati was cast into prison and condemned to death, but escaped and wandered about naked and starving until he was rescued by Emin. A few weeks later Stanley's expedition came to their relief. Cassati returned to Europe, and dictated a book describing his travels and adventures under the title *Dieci anni in Equatoria."

Chamberlain, Sir Neville Bowles, English soldier, born in London, Feb. 17, 1902. He was a son of Sir Henry Orlando Chamberlain, who sent him to Woolwich, but he left abruptly to enter the Bengal army at the age of seventeen, and was immediately despatched in command of a division of the Afghan war, in which he was wounded six times and so distinguished himself by his enterprise and valor that he was attached to the Governor-General's body-guard. He gained new laurels by his personal prowess in the campaign against the Sikhs, and subsequently as commandant of the Punjab frontier force. He commanded a mobile column in the Punjab at the beginning of the Indian mutiny, was afterward made adjutant-general of the army before Delhi, and was severely wounded in the siege. Two years later his successful rapid operations against the Waziris won for him the honor of knighthood. In 1863 he conducted another vigorous frontier campaign against the Bunerwals, and in leading the native soldiers in person to a difficult and dangerous assault he was again severely wounded, but the vital position of the enemy was captured by his plan and he was promoted major-general. From 1876 till 1881 he commanded the Madras army. He was sent on a mission to Shere Ali, Ameer of Kabul, and war resulted because the expedition was stopped at Ali Masjid, though the envoy himself, an adversary of the French, by his masterly inactivity, deprecated any interference in Afghanistan. In 1900 he was made a field-marshall.

Cheyne, John Cowles, British naval officer, died in Halifax, Nova Scotia, Feb. 8, 1902. He entered the navy in 1850, became a lieutenant in 1851, and retired with the rank of commander in 1870. He was an ardent defender of expeditions and took part in three expeditions in search of Sir John Franklin.

Chicholle, Charles Henri Hippolyte, French novelist, born at Chauny, France, July 16, 1845; died in Paris, Aug. 21, 1902. In his early years he was secretary to the elder Dumas, and occasionally collaborated with him. In 1872 he joined the staff of Figaro, and thenceforth remained in the service of that journal. He was a versatile, sympathetic, and ready writer, but his style was lacking in finish. He was the author of a one-act farce, *Le Mari de Margarette*, which ran a few nights in 1870, and of *Le Mari de Jeanne* and other plays, while his published romances and other works include *La Plume au Vent* (1886); *Alexandre Duniot*; *Emile*; *Les amours de la Jeune* (1888); *Le Mari de Jeanne*; and a number of biographies, *Dumas de la Commune* (1884); *Le Vieux Général* (1886); *Femmes et Pois* (1888); *La Grande Présidente* (1887), and Biographe du General Boulanger (1889).

Christich, Nicola, Servian statesman, died Jan. 25, 1902. He was the chief of the Progressist party and for long periods the most powerful political personage in Servia. He was Prime Minister before the abdication of King Milan in 1889. When the young King Alexander in 1884 suspended the Constitution, suppressed the regency, assumed the Government in person, and proclaimed an amended Constitution, Christich promptly took the power and became Prime Minister, resigning in the following year.

Clarke, Sir Andrew, British military engineer and colonial statesman, born in Southsea, England, July 27, 1824; died in London, March 29, 1902. He was the son of Col. Andrew Clarke, who was the first Governor of Southsea, Feb. 17, 1902. He was a son of Sir Henry Orlando Chamberlain, who sent him to Woolwich, but he
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Ireland during the famine; was appointed to a position on his father's staff, but on the way to Perth was persuaded to remain in Van Diemen's Land as military secretary to the Governor, Sir William Denison; left there in 1847 for the Maori war in New Zealand, and served on the staff of Sir George Grey, Governor of that colony, till he was called to Victoria as Surveyor-General. He took a prominent part in framing the Constitution of Victoria, and when it went into force he was elected member for Melbourne in the Legislative Assembly and called into the first Cabinet as Minister of Public Lands in 1855. In 1857, when this ministry resigned, he declined to form a Cabinet and returned to England. In 1863 he was or- dered to the west coast of Africa to plan operations against the Ashantis, but soon returned, and for nine years, as director of works for the navy, he was engaged in planning the reconstruction of the naval arsenal at Chatham, Portsmouth, and Plymouth, the fortifications at Malta and Cork, and the naval fortress and floating dock at Bermuda. In 1873 he was appointed Governor of the Straits Settlements, where he concluded in the following year with the Malay chiefs of Perak the treaty of Pangkor, by which they accepted British residents to rescue the country from the impoverishment and disorder that prevailed in consequence of fights among themselves and among the Chinese miners, who were induced to disarm. He next went to Siam and composed the quarrel between Chulalongkorn and the second King, who was persuaded to abandon his claim to rule. In 1875 he went to India as Minister of Public Works, and there, among other improve- ments, he saw a supply of fresh water for the soldiers that greatly reduced mortality from typhoid and lowered railroad rates so as to enable the Punjab to export wheat. He returned to England in 1881, and as no suitable colonial post was vacant he asked to be assigned to duty, though in the engineer corps he was only a lieu- tenant-colonel still. He organized a bridge-build- ing company of trained mechanics. He was ap- pointed inspector-general of fortifications in 1885, and completed the plans for imperial naval defense that he had begun nine years earlier, including the fortification of Colombo and Singapore. Re- tired from the army as inspector-general in 1886, Sir Andrew Clarke, who had received the colonial order of knighthood in 1873, was twice an unsuccessful candidate for Parliament for Chatham as a Gladstonian home ruler, although an Ulster Protestant. The colony of Victoria appointed him agent-general in London, and he discharged the duties of that office till his death.

CLAYDEN, Peter William, English clergyman, born in Wallingford, England, Oct. 20, 1827; died in London, Feb. 19, 1902. He was educated in private schools, and was successively pastor of Lutonian congregation in Boston, 1855-'59; Rochdale, 1860; and Nottingham, 1866-'68. He joined the staff of the London Daily News, and remained with that paper for the larger part of the time till 1891. In 1873 he established the Read- ing Observer, of which he disposed six years later. He was the author of The Religious Value of the Doctrine of Continuity (1860); Scientific Men and Religious of Others (1861); England under Ben- consfield (1880); Samuel Sharpe, Egyptologist (1883); The Early Life of Samuel Rogers (1889); Rogers and His Contemporaries (1889); and Englishmen Under the Coalition (1892).

CLOYSENSAAR, Alfrid, Belgian painter, born in Brussels, Sept. 24, 1837; died there, Nov. 23, 1902. He was the son of a noted architect, under whose direction he first studied sculpture. The art of painting attracted him, and after studying at the Academy of Art in Brussels he became a pupil of Léon Cognet and a student at the Paris Ecole des Beaux-Arts. In 1861 he exhibited a picture called A Dominican Meditating. He helped decorate the grand salon in the Casino at Homburg for his father, and then traveled for five years in Holland, Germany, and Italy. In 1863 he exhib- ited at Brussels a large canvas representing the four horsemen of the Apocalypse. In 1872 he pro- duced a Mazeppa, and next his Vocation, now in the Brussels Museum. He executed six large mural paintings for the University of Ghent. He exhibited other decorative designs later, but obtained few commissions.

CONSTANT, Benjamin, French painter, born in Paris in 1847; died there, May 26, 1902. He studied in the Ecole des Beaux-Arts under Cabanel, and began to exhibit in the Salon in 1868. His painting was a scene from Hamlet, which he fol- lowed with other similar compositions, turning to dramatic subjects from Oriental life and history, which suited his bent for vivid coloring and for the nude. His mastery in flesh- tints led him into portrait-paint- ing, and the color- ing and dramatic treatment and ma- jestic idealization of his subjects made him the fashionable paint- er of Paris and London. Some of his Oriental pictures are Mahomet II; Les Chérifas; Les Funérailles de l'Empereur; and La Justice du Chérif, which last is hung in the Luxembourg. He painted in Morocco Les Favorites; Les Femmes du Caïd; Les Prisonniers Marocains; Le Roi du Désert; Une Danse d'Afrique; La Tigré Favori; and many interiors and seraglio views. Of romance he did the resurrection of Lazarus and the entombment of Christ. A large decorative painting represents the entry of Pope Urban II into Toulouse Cathed- ral. He painted many small landscapes from sketches made in all places where he studied, small marines, and views of Rome, Venice, New York, London, and other cities, none of which were known until about 80 of these smaller works and 140 large paintings were sold in Lon- don after his death. His portraits of Mrs. Warters and Madame Calvé were two of the most notable. A portrait of his son was bought for the Luxem- bourg. In the Salon of 1892 were hung portraits of Lord Savile and M. de Blowitz. He was com- missioned to paint for reproduction in an illus- trated journal a portrait of Queen Victoria with emblems and accessories suggestive of majesty and empire. This work was exhibited in the Salon of 1900 and in the exhibition of the British Royal Academy in 1901, where it was given an entire wall. He painted also a portrait of Queen Alexandra. Like some of the older artists, and unlike many of the younger generation, he fin- ished his pictures in minute detail, but regarded most their harmonious effect and decorative value.

COOPER, Thomas Sidney, English artist, born in Canterbury, England, Sept. 20, 1803; died there Feb. 7, 1862. His early education was very slen- der. After some experience as a scene-painter, he
went to London, where he was admitted to the Royal Academy schools. In 1827 he went to Brussels, and became acquainted with the artist Verboeckhoven, whose style he adopted. He settled in London in 1831, where he exhibited at the Suffolk Galleries in 1833 and at the Royal Academy the next year. By this time he had become known as a painter of cattle and rural scenes, and his pictures, appearing regularly at the Royal Academy exhibitions, attracted much attention. He became an associate royal academician in 1845 and a full member in 1867. In 1882 he presented his native city with the Sidney Cooper Gallery of Art. He continued active in his profession till very shortly before his death, sending four pictures to the Royal Academy in 1901. He remained ever faithful to his earliest conceptions of what a picture should be, and his later paintings differ only in execution from his early ones. His style was neat, but essentially artificial, and was based on seventeenth-century traditions. His art was wholly lacking in the principle of growth; it consisted of repetitions of pictures which delighted in highly finished canvases representing sunny meadows dotted over with grazing cattle, but it never displayed either fresh study of Nature or originality. It was neat and the rest of but an extremely clever imitation. Cooper exhibited at the Royal Academy sixty-seven years without a break. His autobiography, entitled My Life, appeared in 1890.

Cowper, William, Anglican clergyman, born in New South Wales, in 1810; died at Sydney, New South Wales, in June, 1902. He was a son of Archdeacon Cowper, for many years incumbent of St. Philip's, Sydney, and was graduated at Oxford in 1833. He was ordained to the priesthood in 1834, and was for a short period curate of St. Peter's parish, Dartmouth. Returning to Australia in 1836, he was for twenty years chaplain to the Australian Agricultural Company at Port Stephen, and in 1856 became president of Moore Theological College and incumbent of St. John's, Bishopthorpe. He succeeded his father at St. Philip's on the latter's death, in 1869, and at the same time was appointed Dean of Sydney, and also archdeacon in his father's stead. In 1869 he left St. Philip's for the cathedral parish, of which he remained the incumbent till his death. Dean Cowper was an authority on all matters pertaining to the Australian Church.

Cowie, William Garden, Anglican prelate, born in Aucketers, Scotland, in 1831; died in Wellington, New Zealand, June 25, 1902. He was educated at Cambridge, in 1854 was ordained in the English Church, and served as chaplain to Lord Clyde's army at Lucknow in 1858, to Sir Neville Chamberlain's forces against the Afghans in 1863-'64, and to the camp of the Viceroy of India in 1863. He was rector of Stafford, England, in 1867-'89 and became bishop of the New Zealand diocese of Auckland in the last-named year. From 1895 he was metropolitan of New Zealand. Bishop Cowie published Notes on the Temples of Cashmere; A Visit to Norfolk Island; and Our Last Year in New Zealand. (1887). He was active in promoting university education in New Zealand, and as governor of St. John's College was instrumental in locating the training school for the clergy. To his efforts are due the establishment of the Sailors' Home and the Institution for the Blind.
in Walmer, England, Feb. 9, 1902. He was the son of an English army officer in India, and was educated at Oxford. After studying for the Anglican ministry he was admitted to the priesthood in 1831. After holding the curacy of Salcombe Regis, Devon, 1850–51, and that of St. Paul’s Church, Exeter, 1854–57, he was an assistant master in Cheltenham College, 1860–71. He was subsequently literary adviser to the London publishing house of Longmans, 1861–85; vicar of Bekesbourne, Kent, 1881; rector of Scrayingham, in the East Riding of Yorkshire, 1881–97. For more than twenty years he was a frequent contributor to the Edinburgh Review, the Saturday Review, and other periodicals, and while joint editor with Prof. Brande of the Dictionary of Science, Literature, and Art he made many contributions to that work. On the death of an uncle in 1877 he succeeded to the baronyetc, but there was another claimant of the title. His histories, prepared to meet the needs of special occasions, probably had ephemeral value, but they served well an immediate purpose and are accurate as well as readable. His life of Bishop Colenso is perhaps his most important piece of literary work, long known to laymen for its full vindication of Colenso’s words and acts, and to record that the bishop’s method and conclusions find justifications in the series of judgments pronounced in the courts of the Established Church. Personally the biographer was in full sympathy with the opinions of the Bishop of Natal. He resigned the living of Scrayingham on account of failing health. His published books comprise Poems Legendary and Historical (with the historian Freeman) (1850); Life of St. Boniface (1853); Tales from Greek Mythology (1851); The Tale of the Great Persian War, from Herodotus (1861); Tales of the Gods and Heroes (1862); Tales of Thebes and Argos (1864); A Manual of Mythology (1867); Tales of Ancient Greece (1868); The Mythology of the Aryans Nations (1870); Latin and Teutonic Christendom (1870); Popular Romances of the Middle Ages (with E. H. Jones) (1871); Tales of the Greek Idyls of H. A. Hyatt (1872); A History of Greece (1874); The Crusades (1874); The Greeks and Persians (1876); The Athenian Empire, issued in the Epochs of Modern History series of the Religious Tract Society (1876); A General History of Greece, an enlargement of the earlier work (1876); History of the Establishment of British Rule in India (1881); The Little Cyclopedia of the Children (1883); An Introduction to the Science of Comparative Mythology and Folk-Lore (1881); Short Historical Anec- dotes (1885); Lives of Greek Statesmen: Solon, Themistocles (1885); Concise History of England and the English People (1886); Lives of Greek Statemen, Second Series: Ephialtes, Hermocrates (1886); The Life of John William Colenso, Bishop of Natal (1888); The Church of England and the Teaching of Bishop Colenso (1888). His Little Cyclopedia of Common Things was simply a bold appropriation, bodily, of the Young Folks’ Cyclo- pedia of Common Things, which was devised and written by John D. Champlin, and was published in New York in 1880.

Croke, Thomas William, Irish Roman Catho- lic prelate, born in Mallow, County Cork, May 19, 1824; died in Thurles, July 22, 1902. He was the son of a prosperous farmer, and although his mother was a Protestant, his uncle, who took charge of the Catholic priesthood, sent him to the Irish College at Paris in 1838, where he remained till he was twenty, after which he spent a year in the seminary at Menin, in Belgium, and finished his ecclesiastical training with three years of study in the Irish College at Rome, where he took the degree of doctor of divinity in 1848 and was ordained priest. Returning to Ireland, he was Professor of Rhetoric in the diocesan college at Carlow, which he left to take the chair of Theology in the Irish college at Paris, from which he went back to his native diocese as a missionary priest. He was assigned to the presidency of St. Colman’s College, at Fermoy, in 1858, and filled that position till 1866, when he resumed pastoral work as parish priest of Doneraile. In 1870 he was appointed Bishop of Auckland, New Zealand, and in 1875 he was recalled to Ireland to be Archbishop of Cashel and Emly. The parish priests of the see, whose own three nominations had all been disregarded by the Holy See by advice of Cardinal Cullen, had no welcome for their cosmopolitan and unknown metropolitan until he won the hearts of the people and the name of the patriot archbishop by a rousing Irish speech at the O’Connell centennial celebration in 1875. Dr. Croke had once taken an interest in Irish politics, while he was a curate in the Cloyne diocese, entering into Gavan Duffy’s work for the extension of public health, for fair rents, and free sale, and when that brief movement was destroyed by jealousy and chicanery he declared that he would never engage in another agitation for national independence or land reform. In 1879 he was induced by Charles Stewart Parnell to give his support to the Land League, and became the most earnest and active Land Leaguer in Munster. He condemned the no-rent manifesto, thinking a refusal to pay taxes to the Government, not the refusal to pay rent to landlords, the proper answer to the provisions of the Land League. Still he clung to the cause and advocated a national testimonial to Parnell, unmoved by a papal rebuke. When a scandal in Parnell’s private life was disclosed in the courts Dr. Croke drew up an address to the Irish people declaring that Mr. Parnell was unfit to be their leader, and all the members of the hierarchy signed it simultaneously with Mr. Gladstone’s demesne”.

Dalou, Jules, French sculptor, born in Paris in 1839; died there, April 15, 1902. He studied under Abel de Pujol, Duret, and Carpeaux, and entered the Ecole des Beaux-Arts in 1853. In 1861 he exhibited the Dame Romaine jouant aux Oselets. He joined the Commune, and was instrumental with Barbet de Jouy in saving the art collections of Paris. When the Versailles Government triumphed he fled to London. In 1873 he returned and set him for the future, and was exceedingly hospitable and companionable, with a fund of Irish humor.

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One of his famous works is a bas-relief in the Palais Bourbon representing Mirabeau replying to M. de Dreuix-Brézé. Another is the Triomphe
de la République, erected in the Place de la République in 1899. A bronze group entitled Triomphe de Silene is placed in the Luxembourg gardens. He made a statue of Victor Noir that was greatly admired, and just before his death he completed one of Gambetta.

Dahlia, George, English wood-carver, born in Northumberland in 1816; died in Hampstead, Aug. 7, 1902. He was the son of an artist and was a master of his branch when he established himself in London, where he was joined by his two brothers, whom he took into partnership. The Daliels led in the movement for illustrated books, engaging the ablest artists in England to draw the blocks for them to engrave. These books and pictures exemplifying the highest achievement of the art of illustration and wood-engraving in Great Britain are now sought by art collectors. Bircket F. Foster's Pictures of English Landscape they printed in 1863, and in 1864 Parables of Our Lord, with drawings by Millais. In 1865 they published the Arabic Nights with a multitude of illustrations drawn by Boyd, Houghton, Millais, Tenniel, Pinwell, and Thomas H. Dalziel. In 1868 the famous book on which artists and engravers worked in harmonious cooperation was the Bible Gallery, printed in 1881, to which Ford Madox Brown, Frederick Leighton, Holman Hunt, Sandys, Leitch, Pryor, Edward Burne-Jones, and Simeon Solomon contributed. Many of their engravings appeared in Good Words, Once a Week, and other magazines.

D'Allemagne, Max, French artist, born in Paris, July 19, 1806; died there, Sept. 21, 1902. He early became a director in the Department of Foreign Affairs, but in 1854 resigned his office to devote his time to scientific research. He made many voyages for the purpose of scientific exploration to Central America and to the Antilles. He left an unusually extensive and rich collection of instruments of the stone age. He was named a correspondent of the French Academy of Sciences in 1802, and a membre libre in 1878. He had been an officer of the Legion of Honor since 1854. One of his most important memoirs was that on the Composition des haches en pierre trouvées dans les tombeaux celtiques et chez les tribus sauvages.

Andrew Bruce, Scottish scholar, born in Elgin, Scotland, in 1840; died Jan. 29, 1902. He was educated at Marischal College, Aberdeen, and after studying for the ministry at the Church of Scotland, was ordained in 1868. In the same year he became Professor of Hebrew, and he held that office at the time of his death. He had long been accounted in the first rank of Hebrew scholars, and was a member of the Old Testament Revision Committee. He published a Commentary on the Book of Job (1862); Introductory Hebrew Grammar, a standard authority (1874); and Hebrew Syntax.

Dearden, Henry Woodhouse, 1868; Essays, a Church clergyman, born about 1829; died in Cambridge, England, Feb. 24, 1902. He was educated at Trinity College, Dublin, and was ordained to the priesthood in 1854. He was curate of Platt's, Kent, in 1850-55, and of Loose, near Maidstone, in the same shire, 1855-60. From 1860 to 1877 he was vicar of St. Paul's parish, at Maidstone; incumbent of St. John's, Upper Hoo, from 1877-87; and from 1887 to 1893 he held a living in Southborough, Kent. He retired from active duties in the year last named, but in more recent years served as rural vicar and assistant curate of St. Sepulcher's, Cambridge. He was a strong evangelical in his sympathies, and his Church Teaching (1896) has been widely circulated among Low Churchmen. He was also the author of a book entitled Modern Romanism.

Deasboutin, Marcelin, French engraver, born in 1853; died in Nice, Feb. 18, 1902. He was educated for the law and obtained his university degree, but instead of following that profession he entered the studio of Couture in 1847, and when he left that master he went to Italy and remained eighteen years. On his return to Paris he painted portraits in a most effective manner, one of himself being in the Luxembourg. His chief fame, however, rests on his engravings, notably dry-point portraits of many celebrated artists and writers, and his reproduction of the Fagonards of Grasse. He was also a dramatic poet, author with Jules Amigues of Maurice de Saxe, produced in 1870, a drama in verse. His Cardinal Dubois and Madame Roland have not yet been acted.

De Vere, Aubrey Thomas, Irish poet, born in Limerick, Ireland, Jan. 10, 1814; died there, Jan. 21, 1902. He was the third son of Sir Aubrey De Vere, a distinguished poet, and received his education at Trinity College, Dublin. He was trained both for the law and for the church, and as a contemporary of and fellow student with Robert Browning, he has also won the title of poet laureate of the Irish literary world. His poems are of the thoughtful poets of to-day; but it makes no strong appeal to the average reader. As a prose writer he was both animated and suggestive, and in his essays, which are a defense of the principles of literism, are of worthy reading. His work in verse includes The Waldenses (1842); The Search after Proserpine, a classical masque, and Other Poems (1843); Poems: Miscellaneous and Sacred (1855); May Carolus, or Ancilla Domini (1857-'81); The Sisters, Innisfall, and Other Poems (1861); The Infant's Bridal, and Other Poems (1864); Irish Odes, and Other Poems (1869); Legends of St. Patrick (1872); Alexander the Great: A Dramatic Poem, often compared to Henry Taylor's Philip Van Artevelde (1874); St. Thomas of Canterbury: A Dramatic Poem (1875); Antar and Zara (1877); Legends of the Saints (1879); St. Peter's Chains, or Rome and the Italian Revolution (1880); The Foray of Queen Meave and Other Legends (1882); Of the Heroic Age (1882); Legends and Records of the Church and the Empire (1887). In prose De Vere published the following volumes: English Misrule and Irish Misrule (1867); Sketches of Greece and Turkey (1865); Ireland's Church Property and the Right Use of It (1867); Pleas for Secularization (1867); The Church Establishment of Ireland (1867); The Church Settlement of Ireland, or Hibemn Arcasanda (1868); Protesus and Anteus: A Correspondence (edited) (1878); Constitutional and Unconstitutional Political Action (1881); Ireland and Proportional Representation (1885); Irish Church (1887); Essays, Chiefly Literary and Ethical (1889); and Recollections (1897).

Doel, James, English actor, born in Maiden Bradley, England, 1801; died in Plymouth, England, Aug. 29, 1802, being then the eldest actor of the English-speaking stage. He made his theatrical debut at the Adelphi Theater, London, in 1825, and his last appearance was at a performance for his benefit in London, in 1892. He was a contemporary of Edmund Kean, of Macready, and of Phelps, and in many of the famous old English stage romances, he gave support of nearly all the celebrated actors of the last century. He acted the First Gravedigger to Ed- mund Kean's Hamlet, and was the First Witch in
Macready's production of Macbeth. His theatrical experience went as far back as a performance of The Hunchback, when he acted Fathom to the Master Waver of Sheridan Knowles, author of the play. He also appeared in support of Charlotte Cushman, and in Young Hamlet. All the famous actors of the day appeared in those theaters, including Mme. Vestris and Charles Mathews, who played under his management just after their marriage. In his later years Mr. Dool became the idol of the theatrical profession in his own country, and in 1897, at the time of the great jubilee, Queen Victoria showed him special honor, as being the oldest living English actor.

Donkin, Bryan, English engineer, born in 1835; died March 4, 1902. He was educated at University College, London, and at the Ecole Centrale des Arts et Metiers in Paris. He was then apprenticed in the large paper-making machinery works of his uncle at Bermondsey. In 1858 he became a partner in the firm. His claim to scientific distinction rests on his experimental work in thermodynamics. He carried out extensive researches on the action of the steam-engine and devised the "steam-revealer" that bears his name. In his latter years he gave much attention to internal-combustion motors, and wrote a work on the Gas-Engine. He also translated Diesel's book on The Theory and Construction of the Rational Heat Motor.

Donnelly, Sir John Fretshireville, English military engineer, born in 1834; died April 5, 1902. He will be best remembered for his promotion of governmental schemes of scientific education. He served in the Crimea War as a lieutenant of engineers, and after it was appointed to the charge of a detachment of the same body quartered at South Kensington Museum, London. About 1859 he succeeded Lord Playfair as inspector of science. He was an indefatigable worker in extending the usefulness of the departments of science which now has more than 2,000 classes, attended by 160,000 students. He assisted in reorganizing the old Royal College of Chemistry, in Oxford Street and the Science Museum in Museum Street, which in 1890 became the Royal College of Science. It was largely through his untiring perseverance that the grant of $200,000 was obtained for the completion of the science and art buildings at South Kensington.

Dosanhoy, Framjee, Indian official and journalist, born in Sairat, May 18, 1836; died in Bombay, March 17, 1902. He was a Parsi, and was educated in the Elphinstone Institution and the College of Bombay, received a Government clerkship, resigned to devote himself to journalism, and in five years became manager of the Bombay Times, being the first native to manage an English newspaper. When the gac act was passed in 1857 he was appointed censor of the vernacular press. In 1864 he was made a magistrate. He was the first native chairman of the corporation of Bombay. In 1858 he visited England to publish a book on The Parsis.

Duckett, Sir Floyd, English archeologist, born in 1811; died May 13, 1902. He was widely known for his archeological researches, and received in 1893 the special gold medal of honor from the city of Rome. He was one of the founders of the museum in archeology. Besides many antiquarian publications, such as the Record Existence of the Order of Cluni in England, he was the author of a Technological Military Dictionary (1848) in German, English, and French, which gained him gold medals from Austria, Prussia, and France, and Reminiscences (1894). In 1888 he was appointed an officer of public instruction in France. Sir Floyd was educated at Harrow and at Oxford, and succeeded his father as third baronet in 1886.

Dufferin and Ava, Frederick Temple Hamilton-Temple Blackwood, Marquis of, Irish diplomatist and author, born in Ireland, June 21, 1826; died in Clonboy, County Down, Ireland, Feb. 12, 1902. His mother, Lady Dufferin, was a granddaughter of Richard Brinsley Sheridan, and was well known as a poet. The son was educated at Oxford. He was sent on a Government mission to Vienna in 1855, and to Syria in 1859-60. He was Under-Secretary of State for India in 1864-66; and Under-Secretary of War for India in 1866; chancellor of the Duchy of Lancaster in 1868; and Governor-General of Canada in 1872-79. He was appointed ambassador to Russia, in 1879, and to Turkey in 1881, special commissioner to Egypt in 1882, and Governor-General of India in 1884. He served as ambassador to Italy in 1888, to France in 1891, and was lord warden of the Cinque Ports in 1891-95. Harvard University gave him the degree of LL.D. in 1878, and he was lord rector of St. Andrew's University in 1890-99. His writings comprise Letters from High Latitudes (1850); Irish Emigration and the Tenure of Land in Ireland (1867); Mr. Mill's Plan for the Pacification of Ireland Examined (1868); Speeches and Addresses (1882); and Speeches delivered in India (1890).

Durand, Mme. Alice Mary Céleste (Fleury), "Henri Gréville," a French novelist, born in Paris, Oct. 12, 1842; died there, May 26, 1902. She was educated at home, and when at fourteen she accompanied her father, Prof. Fleury, to St. Petersburg, she was familiar with several languages. She began early to write novels and tales of Russian life, and this she continued to do after her marriage with M. Durand, a French Professor of Law. On her return to France in 1872, Mme. Durand began to contribute to the Revue des Deux Mondes, Le Temps, and other high-class periodicals. In 1886 she visited the United States with her husband, and several of her novels, republished in this country, were widely read here. Her published books, which appeared with the pseudonym Henri Gréville, include A Travers Champs (1872); Donis (1876); L'Expiation de Savelli (1876); La Princesse Ogeroff (1876); Les Koumissine (1877); Suzanne Normis (1877); Sonia (1877); La Maison de Maurozé (1877); Nouvelles Russes (1877); Les Épreuves de Raïssa (1877); L'Amie (1878); Le Violon Russe (1879); Citè Ménard (1880); L'Héritage de Xénie (1880); Le Moulin Frappier (1880); Les Degrés de l'Échelle (1881); Madame de Breux (1881); Perdue (1881); Le Fiancé de Sylvie (1882); Rose Rozier (1882); Une Trahison (1882); Manuel d'Instruction Civique et Morale des Jeunes Filles (1882);
Angèle (1883); L'Ingenue (1883); Louis Breuiol (1883); Un Crime (1884); Les Ormes (1884); Idylles (1885); Clairefontaine (1885); Le Mors aux Dents (1885); Cléopâtre (1886); Le Comte Xavier (1886); La Fille de Dosia (1887); Nicanor (1887); Frank (1887); Comedies de Paraveni (1888); Le Seconde Mère (1888); L'Avenir d'Aline (1889); Chant de Noces (1889); Le Passé (1890); Un Mystère (1890); Aurette (1891); Pérel (1891); and L'Artifice (1891).

Escobedo, Mariano, Mexican soldier, born in 1827; died in Tacubaya, May 22, 1902. He was originally a muleteer. In the war with the United States he was an active guerrilla chief who attacked small detachments of the American army and fought with his band in the battles of Palo Alto and Resaca. In the war against the Clericals and French he raised a body which fought the troops of Gen. Miramon, was commissioned colonel in 1859, and advanced to brigadier-general in 1861, when the Government of Gen. Juarez was established, and pursued the remnant of the Clerical forces under Gen. Marquez and Gen. Mejia, but was captured by the enemy, and escaped with difficulty when ordered to appear in Mexico. In most of the engagements with the invading French forces, fed to Texas when the empire was established, organized and equipped an expedition among the refuge republicans with which he entered Mexico in 1865 and swept all before him, was appointed by President Juarez commander-in-chief of the Army of the North, continued his victories until all the principal cities of the state in the hands of the Republicans, and finally received the surrender of the Emperor Maximilian at Queretaro on May 15, 1867. He quelled an uprising against the Government of Juarez in 1874, and when a revolution was started by Gen. Diaz he was appointed Secretary of War to organize resistance, in which he was unsuccessful. Taking refuge in Texas, he issued a manifesto calling for volunteers to overthrow the Government of President Diaz. He was arrested and tried when he returned to Mexico later, and though acquitted, he was held in a hotel until the President placed his liberty in 1879 by pleading ill health and went to New York. Returning to Mexico later, he was appointed to a Government office, which he resigned.

Eyre, Charles, Roman Catholic prelate, in Scotland, born in Arkan, Bryan Hill, York, in 1817; died in Glasgow, March 29, 1902. He studied at Vaillan and Roman Catholic College, Paris, at the Collège de France, and at Rome, becoming assistant priest at St. Andrew's, in Newcastle, in 1843, and senior priest of the cathedral in the same city in 1849. In 1857 he was appointed archbishop for the western district of Scotland, receiving the title of Archbishop of Glasgow. In 1874 he founded a diocesan seminary for Glasgow for the study of philosophy and theology. Archbishop Eyre was well known as an antiquary. He was the author of The History of St. Cuthbert (1840); Children of the Bible; and Papers on the Old Cathedral of Glasgow.

Faed, John, Scottish artist, born in Burley Mill, Kirkcudbright, Scotland, in 1820; died in Gatehouse-of-Fleet, Scotland, Oct. 22, 1902. He became a miniature painter when little more than twelve years old. At nineteen he went to Edinburgh, and, establishing himself there as a miniaturist, soon met with great success. In a few years he formed for his brother Thomas to study art, which the younger man did to such good purpose that he became famous as a genre painter. He died in 1901. Another brother presently went to Edinburgh, to be known later as James Faed, the engraver. John Faed began to exhibit at the Royal Scottish Academy in 1841, and about this time took up oil-painting. In 1848 he was elected an associate of the Scottish Academy, and he became a full member in 1851. His subjects were found in history, the poets, and homely country life, his early training as a miniaturist making itself apparent in his canvases in great precision of outline, and his paintings, while always carefully drawn, are somewhat hard in color. Among noteworthy pictures by him are Boyhood (1850); The Cruel Sisters (1851); The Cottar's Saturday Night (1864); Reason and Faith (1855); Job and his Friends (1855); Boaz and Ruth (1860); Rosalind and Orlando; Olivia and Viola; and Shakespeare and his Contemporaries. In 1862 Faed removed to London, where he resided eighteen years, exhibiting regularly at the Royal Academy. Such works as John Anderson, my Jo, The Morning before Flooden, The Old Basket-Maker, and Annie's Tryst belong to the period of his London sojourn. He retired to Gatehouse in 1880, but still continued to paint, several pictures of the scenery along the Fleet being numbered among the works of his last years.

Peye, Hervé Auguste Étienne, French astronomer and meteorologist, born in Saint-Bénost-du-Sault, Indre, Oct. 5, 1814; died in Paris, July 4, 1902. He entered the Polytechnic School, but soon left his studies to take charge of a large industrial establishment in Holland. He first came prominently before the scientific world in November, 1845, as the translator of the memoirs of Pierre Laplace under his own name. He was at this time an assistant in the Paris Observatory. In cosmical physics and chemistry he was a pioneer, and if his theories have not always been justified by later research, they are always philosophical and suggestive. Indeed, his philosophical writings are those on which his reputation among his own countrymen chiefly rests. He wrote several volumes, the two best known of which are Sur l'Origine du Monde and Cours d'Astronomie Nautique. He was called by Marshal MacMahon to fill the office of Minister of Instruction he held his degree at an early age. He soon became a close student of paleontology and comparative anatomy, and in 1853 made his first contribution to science in a pamphlet in the Comptes rendus des Cavernes de la Vallée de Tarascon (Arrège), published in the Compte Rendus, LVII. He was a member of the French Commission sent out to study the transit of Venus in 1874. In 1876 he received the Lalande-Guerin prize of the French Academy of Sciences; was awarded the gold medal of the Scientific Congress of the Sorbonne in 1879; the Petit-Dormoy prize in 1883; and received the decoration of the Legion of Honor in 1886. He at one time held the chair of Zoology in the Faculty of Sciences of Toulouse. In 1886 he became subdirector, and subsequently director, of the Museum of Natural History in Paris, and was finally appointed to the professorship of Comparative Anatomy, which post he held until his death. Among his most important scientific memoirs are Recherches sur les Phosphoriques du Quercy: Études des Mammifères Fossiles de Saint Germain le Puy (Allier); Étude des Mammifères Fossiles de Sausset; La Vie au Fond des Mers; Faune des Crustacés de la Nouvelle-Zélande; Zoologie Descriptive, and, in conjunction with M. Filhol. Pierre Antoine Henri, French naturalist, born in Toulouse in 1843; died April 28, 1902. He was the son of the famous chemist Édouard Filhol, studied medicine, and received his degree at an early age. He soon became a close student of paleontology and comparative anatomy, and in 1853 made his first contribution to science in a pamphlet in the Comptes rendus des Cavernes de la Vallée de Tarascon (Arrège), published in the Compte Rendus, LVII. He was a member of the French Commission sent out to study the transit of Venus in 1874. In 1876 he received the Lalande-Guerin prize of the French Academy of Sciences; was awarded the gold medal of the Scientific Congress of the Sorbonne in 1879; the Petit-Dormoy prize in 1883; and received the decoration of the Legion of Honor in 1886. He at one time held the chair of Zoology in the Faculty of Sciences of Toulouse. In 1886 he became subdirector, and subsequently director, of the Museum of Natural History in Paris, and was finally appointed to the professorship of Comparative Anatomy, which post he held until his death. Among his most important scientific memoirs are Recherches sur les Phosphoriques du Quercy: Études des Mammifères Fossiles de Saint Germain le Puy (Allier); Étude des Mammifères Fossiles de Sausset; La Vie au Fond des Mers; Faune des Crustacés de la Nouvelle-Zélande; Zoologie Descriptive, and, in conjunction with M.
Gace, Frederick Aubert, English clergyman, born in 1811; died in Barling, England, Dec. 10, 1902. He was graduated at Oxford in 1837, and was admitted to the priesthood of the Anglican Church in 1838. After serving, as curate in several places, was appointed chaplain of the Westminister House of Correction in 1834, and head master of Camberwell Grammar School, London, in 1860. In 1863 he received the living of Barling Magna, Essex, and was rector there until his death. Although holding advanced High-Church opinions, he resembled Dr. Pusey in his indifference to points of ritual, and insisted on preaching in the black gown to the last. In 1870 he published Some Questions of the Church Catechism and Doctrines Involved, briefly Explained, a work that excited much attention and was vividly paraphrased in Punch. His other published works are A Complete View of the Holy Eucharist, Doctrinal, Practical, and Controversial (1871); and The Arithmetic of Abstract Numbers (1875).

Gagnepain, Mme. Marie Louise (Mignoret), French novelist, born at Domblians, in the Jura, France, about 1831; died in Paris, Feb. 17, 1902. She began to write early, and an essay by her was published at eight. She attracted the notice of Vladimir Gagnepain, a member of the Chamber of Deputies, who shortly afterward married her. She was an ardent republican, even in the hour of victory. Her various romances were extremely popular, especially with the socialists and anticlericals. She had an easy, fluent style, and her pages were not lacking in pathos. She died several years before her death she had been ranked among the most gifted of the Frenchwomen of the last half-century, and in 1901 she received the decoration of the Legion of Honor. Her writings comprise Une Explication (1859); Un Femme hors Ligne (1862); Un Drame Electoral (1863); La Croisade Noir (1865); Le Calvaire des Femmes (1867); Les Reprouves (1867); Les Forcates Mariage (1869); Chair a Canon (1872); La Politique au Village (1874); Les Droits du Mari (1876); Le Roman d'un Frere, which, appearing in weekly instalments in a Paris journal, was as popular as the day of its publication. She died on the nineteenth instalment (1876); Le Divorce (1877); Les Vierges Russes (1880); La Fournaise (1884); Jean Caloche; Les Chevaliers du Sacre-dieu; and M le Bon Enfendant. 

Gardiner, Samuel Rawson, English historian, born in Ropley, Hampshire, England, March 4, 1829; died in Sevenoaks, Kent, Feb. 24, 1902. He was educated at Winchester and Oxford, but re- signed his studentship in the university in his junior year upon finding that a degree would not be conferred on him on account of his hav- ing become an Irvingite. More than thirty years later he received his degree. He married and settled in London, and soon began the great task he had set himself, the preparation of a history of England from 1066 to 1660. Not being pos- sesssed of independent means, he was obliged during the continuation of this undertaking to engage in teaching, and his non-professional hours were all that he was able to devote to research and writing. He was Professor of History at University College, London, in 1871-'85, historical lec- turer for the University Extension Society in 1880-'84, Ford lecturer at Oxford, and examiner in history for London University till 1901, and examiner in the Final History School at Oxford in 1886-'89. The first instalment of his history appeared in 1863, entitled History of England from the Accession of James I to the
Disgrace of Chief-Justice Coke, 1603—16. It was followed by Prince Charles and the Spanish Marriage, 1610—24 (1869); A History of England under the Duke of Buckingham and Charles I, 1624—25 (1875); The Personal Government of Charles I, 1626—37 (1877); The Fall of the Monarchy of Charles I, 1637—42 (1881). Each instalment filled 2 volumes, and a second edition in 10 volumes, bearing the title A History of England from the Accession of James I to the Outbreak of the Civil War, was issued in 1883. The history was at first very coldly received by the public, the successive volumes having scarcely any sale; but, wholly undeterred by this circumstance, the author took up the second division of his task, A History of the Great Civil War, 1642—49, which appeared at intervals from 1886 to 1901. The third and last division, A History of the Commonwealth and the Protectorate, 1649—60, appeared in 3 volumes, 1884—91. Two more had been originally contemplated, but Prof. Gardiner decided to conclude with the death of Cromwell, instead of with the Restoration, and thus bring this portion of the book within the limits of 4 volumes. The fourth volume he had arranged with his literary executor, Dr. Firth, to complete. In addition to his great work Prof. Gardiner published The Thirty Years' War (1874), The First Two Stuarts and the Puritan Revolution (1876), both contributions to the Epochs of Modern History Series; Outline of English History (1881—83); Introduction to English History (with B. Mullinagar) (1881); A Student's History of England (1884); Constitutional Documents of the Puritan Revolution (1888); Cromwell's Place in History (1897); What Gunpowder Plot Was (1897); Oliver Cromwell (1899). He edited Letters and Papers Illustrating the Relations between Charles and Scotland in 1630—34 (1894); Letters and Papers relating to the Dutch War (1890); and besides contributing very many lengthy articles to the Dictionary of National Biography edited the English Historical Review, 1890—1901, to which he also contributed. In the course of his researches he examined the national archives of France, Spain, Italy, and the Netherlands, and at the Record Office made himself acquainted with the originals of the state papers, and the unclassified state papers foreign, mastering, in order to accomplish this last task, the Spanish, Dutch, French, Italian, German, and Swedish languages. He never allowed himself to describe a battle without having personally inspected the field or learned all that might be gleaned from local antiquaries. His aim was to view events from the standard of the contemporary observer, and thus to treat history progressively rather than retrospectively. In this he was not entirely successful. As one critic, of whom he approved it, "his work discloses a combination of (1) the most absolutely truthful and sincere process of deduction of fact; (2) broad, luminous, and skilled historical exposition." Prof. Gardiner's services to historical literature it would not be easy to overestimate. On no occasion was he ever swayed by either sentiment or prejudice. Personally, his political opinions are known to have been Liberal; but in all his writing he is strictly impartial that from it no one could be certain of the direction of his likings. "History in his eyes," observes one careful student of his writings, "was not a repertory of argument to be used in polemic and debate for the furtherance of any political or religious end. It was the road to truth alone." It may be said in all sincerity that in his native country there never has been a more single-minded or more enthusiastic lover of historic truth than Prof. Gardiner. He cared very little for any display of rhetoric, and troubled himself not at all concerning style, but as his great work progressed he gradually acquired a style both luminous and orderly, and not infrequently impressive. On the death of Froude, Prof. Gardiner was invited to succeed him as Professor of Modern History at Oxford, but the invitation was declined from the fear that the duties of the chair would interfere with the completion of his history. "Here is a long man," writes Grant Robertson, "who by the appeal to the inexorable tribunal of truth, without a word that could wound or an epithet imputable to the twofold virtue of being good and true what Puritan England tried to be, the hopes and dreams, the failures and successes, of its men and women, what it was in all its weakness and all its matchless strength, that man is Samuel Rawson Gardiner."

Garland, George Vallis, English clergyman, born in 1823; died at Boscombe, England, Dec. 24, 1902. He was educated at Cambridge, and after preparing for the Anglican ministry was admitted to the priesthood in 1850. He was curate of Crowle, Lincolnshire, 1850—52; director of Langton Matravers, 1852—69; vicar of Aslacton, 1869—75; and rector of Binestead, Isle of Wight, 1881—94. He was the author of Plain Possible Solutions of the Objections of Right Rev. J. W. Colenso (1865); Remarks on the Vision of the Four Chariots of Zechariah (1869); Genesis with Notes (1875); The Compatibility of the Eternity of Matter with the Existence of God (1881); and The Practical Porpoise of All the Gods (1883).

Gall, Frederick, English colonial prelate, born in 1821; died in Cuford, Coonor, India, March 25, 1902. He was educated at Cambridge, and in 1843 was admitted to the bar at Gray's Inn. In 1846 he was appointed to the see of Riccardo at Great St. Mary's in the university town, 1844—45. From 1849 to 1859 he was lecturer, dean, and assistant tutor at Christ Church, Cambridge, and for the two years succeeding was domestic chaplain to the Bishop of London. In 1861 he was consecrated Bishop of Madras, his long and arduous episcopate continuing until his resignation in 1888.

Giani, Demeter, Roumanian statesman, born in 1838; died July 16, 1902. He studied at Berlin and Paris, practised law after his return, was elected Deputy in 1866, but resigned rather than take the oath of allegiance under the statute suspending the Constitution, was elected again in 1868, joined the Liberal party, successfully opposed the design of the ministry of Lascar Castargi to arrest and prosecute the ministry of 1870, was a member of the Constituent Assembly of 1878 and the author of the law of ministerial responsibility, has ably directed the Bratianu Cabinets of 1880 and 1887, and was the author of many important laws. Under the Sturdza administration in 1896 he was president of the Chamber.
Gilbert, Sir Joseph Henry, English agricultural chemist, born in Hull, Aug. 1, 1817; died Dec. 23, 1902. He was the son of a clergyman and studied chemistry in Glasgow University, University College, London, and under Liebig at Giessen. He was assistant to Prof. Anthony Todd Thomson in University College in 1840, went to Manchester to experiment in cotton dyes, and in 1843 became the associate of J. B. Lawes in the experimental farm at Rothamstead. Together they experimented in soils, fertilizers, and selection of seed, and published the results in over a hundred papers. He journeyed in the United States and Canada in 1882 and 1884 to study the conditions of agriculture in America. On the fiftieth anniversary of the Rothamstead experiments he was knighted, and in 1884 he was appointed Professor of Rural Economy at Oxford.

Gladstone, John Hall, English chemist and educator, born in London in 1827; died Oct. 6, 1902. He was educated at University College, London, and at the University of Giessen. In 1850 he became lecturer in chemistry at St. Thomas's Hospital, and three years later was elected a fellow of the Royal Society. He held the Fullerian professorship of Chemistry at the Royal Institution from 1874 to 1877; was first president of the Physical Society from 1874 to 1876; and was president of the Chemical Society from 1877 to 1878. A few years before his death he received the Davy medal from the Royal Society. He was one of the founders of that branch known as physical chemistry. Among his most important chemical works are that on the spectra obtained at varying hours during the day; his researches on the absorption and dispersion of the elements; his investigations regarding voltaic batteries; the chemical history of gun-cotton; and archeological metallurgy. The Proceedings of the Royal Society contain more than 100 papers from his pen. He was for more than twenty years, beginning in 1873, a member of the London School Board. He was especially interested in a more general spread of scientific knowledge among the people, and he strove continuously to modify elementary public instruction to this end. The following paragraph appears in his Preface to the Chemical Section of the British Association, delivered in 1872:

"The so-called educated classes in England are not only supremely ignorant of science, but they have no sense of the meaning of improvement—the knowledge of their own ignorance."

Gossler, Gustav von, German statesman, born in Naumburg, April 13, 1838; died in Danzig, Sept. 29, 1902. He was the son of a Prussian judge, and studied law in Königsberg, Berlin, and Heidelberg, becoming a local magistrate in West Prussia in 1865 and legal assistant in the Ministry of the Interior to carry out district regulations in 1874. Four years of this work obtained for him the appointment of chief judge of the Administrative Court. A year later he became Under-Secretary in the Ministry of Worship, and was elected to preside over the newly elected Reichstag. On July 18, 1881, he succeeded Herr von Puttkamer in the Prussian Ministry of Worship, with the duty of giving practical effect to the reconciliation of the state and the Church. The repeal of the Falk laws was the most difficult part of his task. This he accomplished, with the courage of his opinions, and in consequence he opposed the agitation that followed the first appointment of Roman Catholic bishops to seats in England. He withdrew from the House after resigning as minister of culture in 1892.
heartily. As a preacher he was forceful and exceedingly fluent, his theology being dogmatic and evangelical. While a student at Yale he published a tract in 1846 entitled Come to Jesus, which proved extraordinarily popular, being translated into 40 languages and reaching a circulation of 6,000,000 copies. His other works include The Scriptural Claims of Testimonialism (1846); Follow Jesus (1848); It is I (1849); Divine Socialism (1851); The Land of the Forum and the Vatican (1854); Seventy Scripture Chants (1854); Congregationalism for Christ (1856); Hymns and Songs for Bands of Hope (1855); Sacrifice (1856); Christian Victory (1856); The Dignity of Labor (1856); The Dangers of Negative Theology (1857); Hymns composed at Bolton Abbey, and Other Rhymes (1857); Hints on Preaching (1858); Now! (1858); Queene not the Spirit (1858); The Day of Salvation and Other Tracts (1859); Christ for Everyone (1860); Plain Truths Plainly Put (1861); The Holy Catholic Faith (1862); The Shadow of the Almighty (1862); Water and the Spirit (1863); A Golden Amonis preached in America (1864); Summer Rambles under the Shadow of the Matterhorn (1865); The Assassination of Lincoln: A Lecture (1865); The Cardinal and the Thief (1865); The Antidote of Fear (1866); Homeward Bound and Other Sermons (1869); Pilgrim Songs in Cloud and Sunshine (1870); Liverpool to St. Louis (1870); Conflicts and Viceroyalty (1871); House of Prayer (1875); The Lord’s Prayer, a Practical Meditation (1883); The Coming of the Lord (1884); The Songs of Heaven and Earth (1885); Gehannah; The Assassination of Lincoln (1886); The Lyric Life (1891); Songs of the Divine Life (1895); and Autobiography (1898).

Hamoud bin Mohammed bin Said, Sultan of Zanzibar, born in 1852; died July 23, 1902. He was a nephew of the Sultans Ali, Khalifa, and Burghaah, and cousin of Sultan Hamed bin Thwain, who died suddenly on Aug. 27, 1895, probably of poison. The next heir to the throne, who was unfriendly to the English, seized the Government, but the British naval force interfered and placed Hamoud on the throne, depriving him of the share in the public administration exercised by his predecessor.

Hauser, W., Swiss statesman, born in 1837; died in Zurich, Oct. 22, 1902. He has been Minister of Justice in the Federal Government almost uninterrupted since 1888, and at the time of his sudden death was completing the budget, having elaborated a tariff law. He was a taper in early life, and when he entered upon his official life he devoted immense energy to public affairs and was a faithful guardian of the treasury. In 1890 he was President of the Confederation.

Hector, Mrs. Annies (French), "Mrs. Alexander," English novelist, born in Dublin, Ireland, in 1825; died in London, July 10, 1902. She began early to write, but discontinued the practice on her marriage to Alexander Hector, a Scotman, who accompanied Layard in his excavations at Nineveh. After her husband’s death she resumed her pen, and for nearly thirty years was one of the most distinguished novelists of her day. She did not possess much originality, but she wrote with ease and fluency, and always entertainingly, and she retained through life a circle of readers who awaited her successive stories with interest. The Wooling O’t first brought her into national notice, and it remains one of her best books. The tone of all her writing was wholesome, and if she never excelled in any branch of literature, she succeeded in giving a great deal of genuine pleasure to very many persons. A nearly complete list of her books, which are fiction with but few exceptions, includes Which Shall It Be? (1866); Heroes of the Crusades (1870); The Legend of the Golden Prayer (verse) (1872); The Wooling O’t (1875); Ralph Wilton’s Weird (1876); Her Darkest Foot (1876); The Heritage of Langdale (1877); Maid, Wife, or Widow (1879); Moral Songs (1879); The Freres (1882); Look before you Leap (new ed., 1882); The Admiral’s Ward (1883); The Executor (1883); Holiday Songs (1884); A Second Life (1885); At Bay (1886); Valerie’s Fate (1885); Beaton’s Bargain (1886); By Woman’s Wit (1888); Mona’s Choice (1887); Forging the Fetters (1887); A Life Interest (1888); The Tattersham (1890); A Blind Fate (1890); A Woman’s Heart (1891); Mammon (1891); Well Won (1891); The Snare of the Fowler (1892); For his Sake (1892); Found Wanting (1893); A Country Mystery (1894); A Choice of Evils (1894); Broken Links (1894); What Gold can not Buy (1895); A Winning Hazard (1896); A Fight with Fate (1896); Author of the Fort (1896); Miss Crichton’s Creditor (1897); Barbara’s Maid and Peersess (1897); The Cost of her Pride (1899); V. C. Brown (1899); A Missing Hero (1900); Love and Law (1900); A Verker’s Courier Maid, and the Yellow Fiend.

Heinrich XXXI, Prince of Reuss-Greiz, born in Greiz, March 28, 1846; died there, April 19, 1902. All the male members of the House of Reuss have died for nearly eight hundred years borne the name of Heinrich and are distinguished by numbers, which in the elder line begin anew with each hundred years in the younger line after the end of the century. This prince, belonging to the elder line, who was left to rule over one of the most insignificant dominions in Germany, was most jealous of his rights and dignity as a German sovereign, and distinguished himself by the independence of his opposition to Prussian policy that his Government invariably offered in the Federal Council. His mother, Princess Caroline, of the house of Hesse-Homburg, acting as regent, had taken the side of Austria in the war of 1866, following Saxony, Hesse, and Hanover, and in consequence Prussian troops occupied the principality and a war indemnity was levied. When Heinrich attained his majority he began his reign by proclaiming representative government of a very restricted kind. With a newspaper for which he wrote and by means of his official and ecclesiastical position he endeavored to convert all his subjects to the separatist Guelph party. The militia corps under his orders were not allowed to raise flags or fire salutes for the Emperor. As a German sovereign he would observe treaties, but he would not hoist flags at the command of any prince.

Henty, George Alfred, English author, born in Trumpton, England, Dec. 8, 1832; died in Weymouth, England, Nov. 16, 1902. He was educated at Westminster School and at Cambridge, and went to the Crimes in the purveyor’s department. He returned to England at the close of the war, and was successively placed in charge of the Belfast and Portsmouth districts as purveyor. Resigning his commission, he spent some years in mining operations in Wales and Hebrides, and later became special correspondent of the London Standard, in which capacity he went through the Austro-Italian, the Franco-Prussian, and Turbo-Servian campaigns, engaged in no sitian and Ashantee expeditions, and was with Garibaldi in the Tyrol. For many years he edited the Union Jack, a popular periodical for boys. He spent, in his later years, six months of every twelve on board his yacht, and his death occurred.
there while it was in Weymouth harbor. He was tall and burly in appearance, rather rigid in expression, and dogmatic in manner. His stories for boys are a blend of fact and extravagance, and constitute apparently a history of all the wars, great and small, in which England has been engaged for the past two centuries; but they are more picturesque than accurate. His books were poured forth with astonishing rapidity for an entire generation.

**Herbert, William Kirk**, Irish Anglican clergyman, died in County Louth, Ireland, Aug. 34, 1902. After studying for the Anglican ministry he was admitted to the priesthood in 1882. He was rector of Kilkenny, Ireland, from 1893 until his death, and was the author of an interesting work on *The Medical Language of Saint Luke* (1883).

**Hertalet, Sir Edward**, English diplomatist, born in London in 1824; died in Richmond, Aug. 4, 1902. He entered the Foreign Office, where his father, Lewis Hertalet, was librarian and archivist, in 1840, and succeeded his father in 1857. In 1876 he was attached to the mission of Lord Beaconsfield and Lord Salisbury at the Congress of Berlin, and was knighted for his services. He was one of the British delegates in 1889 for the Treaty of Berlin, and in 1901 British and Dutch Borneo. He published *The Map of Europe by Treaty; The Map of Africa by Treaty; Recollections of the Old Foreign Office; and Collections of Journals and Correspondence* (1887; by Hermann in English Verse, a translation (1870); *The Apostolic Fathers* (1872); *St. Peter's Visit to Rome* (1873); *Poems and Translations* (1875); *Hermione, a Tragedy* (1877); *Ulysses, The Mourning of Ulysses* (1880); and *The Classical Element in the New Testament considered as a Proof of its Genuineness* (1880).

**Heygate, William Edward**, English clergyman, born in 1816; died Dec. 12, 1902. He was educated at Oxford, and after preparing for the Anglican ministry was admitted to the priesthood in 1840. After serving as curate at Great Wakering for some years, he removed to St. Gerrans in 1848, but returning to Essex was curate of Hadleigh, 1853–57, and of Leigh, 1857–69. In the last-named year he became rector of Brixton, Isle of Wight, a post which he filled for the rest of his life. From 1867 he was honorary canon of Winchester. He was a moderate High Churchman, very active in all parochial duties, and a man of great personal charm. His varied writings comprise *Probatio Cleries* (1846); *The Holy Trinity, Ely* (1848); *William Blake, or the English Farmer* (1848); *Godfrey Davenant at School* (1849); *Godfrey Davenant at College* (1850); *Ellen Meyrick, or False Excuses* (1851); *The Care of the Soul* (1851); *Pierre Pousain* (1851); *Speculation, a Tale* (1851); *Catholic Antidotes: Essays* (1858); *Sir Henry Appleton, or Essex during the Great Rebellion* (1858); *The Scholar and the Trooper* (1858); *The Evening of Life* (1860); *The Fugitive, and Other Poems* (1870); *Alllegories and Tales* (1873); *Sudden Death, and Other Stories* (1880); *The Brothers, and Other Stories* (1880); *Old Richard, and Other Stories* (1881); *Parish Tales* (1883); and *An Old Parson's Anecdotes*.

**Holub, Emil**, Austrian explorer, born of Czech descent at Holice, Bohemia, Oct. 7, 1847; died in Vienna, Feb. 21, 1902. In early manhood he practised for a time as an apothecary, but at the age of twenty-three went to Africa, and practised in Kimberley and elsewhere as a physician, but without a doctor’s degree. His love of natural history, and of ornithology in particular, presently led him to explore the region beyond the Zambezi, and his residence of seven years in Africa was largely devoted to ornithological researches and to zoology in general. He lived for a time in Prague, but afterward settled in Vienna, where he married. He now resumed his medical studies and received his medical degree, and also devoted much time to the study of astronomy and geography. In 1883, accompanied by his wife, he made a second trip to South Africa, his task on this occasion having been made easier by a public subscription as well as a generous gift from the Emperor, Francis Joseph. He returned to Austria in 1887 and resided in Vienna thereafter, engaged in scientific work, and lecturing frequently upon South African affairs. In acknowledgment of his services as an explorer, he received from the Emperor the Order of the Iron Crown. Doctor Holub’s published works comprise *Beiträge zur Ornithologie Sudafrrika (Contributions to the Ornithology of South Africa)*; *Sieben Jahre in Sudafrica* (1881); *The Colonization of Africa*; and *From Cape Town to the Country of the Maskukulumes*.

**Hooole, Charles Holland**, English classical scholar, died in Richmond, England, at the age of sixty-six. He was educated at Oxford, and was ordained priest in 1863. He was lecturer at Christ Church College, Oxford, in 1862–63, and in 1863–65. He entered the Bodleian Library as sub-librarian in 1865, and in 1869–70 was senior student of that institution. He was the author of *An Analytical Paraphrase of the Republic of Plato* (1861); *The Church and the Methodists* (1868); *Aute S. Tuncley, Italy, Spain, Persia, Japan, and China*; and he edited Hertalet’s *Commercial Trea
ties and British and Foreign State Papers*, works begun by his predecessor. He was a close student of the Latin classics.

**Horváth, Ferdinand**, Hungarian statesman, born in 1838; died April 19, 1902. When the National party formed the Moderate Opposition he was its president for many years. He was fused by Stettl with the Government majority he was taken into the Cabinet as Minister of Commerce, but in a few weeks he died.

**Hörup, V. L. B.,** Danish statesman, born in 1841; died in Copenhagen, in 1894, was the editor of the Radical paper Politiken, which for twenty-five years combated the Conservative party until at last it gave up the reins of power.

**Huse, Hugh**, English clergyman, born in 1847; died in London, Nov. 17, 1902. After studying at University College, London, he prepared for the ministry in the Wesleyan Theological College at Richmond. His first appointment was at Dover, where he remained three years, subsequently filling pastorates of equal duration at Brighton; Stoke Newington, London; Moslyn Road, London; Oxford; and Brixton Hill. At the close of his ministry at Brixton he was made superintendent of the West London Mission, which sustains the Lincoln House for Social Philanthropy in Soho Square and Katherine House Residence for Fallen Women in 37 South Africa. He was an eloquent preacher, and active in religious or semireligious undertakings for the past twenty years, being especially prominent in opposition to gambling, state liquor licenses, vice in brothels, sacerdotalism, and vivisection. At the
time of his death he was president of the London Methodist Council. He vigorously and successfully opposed the运动 of Lord John Russell to Copenhagen to straighten out the Schleswig-Holstein imbroglio, with instructions to uphold the London protocol of 1860, recognizing the unity of Denmark, Schleswig-Holstein, and Lauenburg, and the treaty of 1852, securing the succession of Prince Christian of Glucksburg, without committing England, although Denmark had violated engagements which Germany considered a part of the treaty. Germany and Austria had therefore threatened to annul it and seize the duchies, but were willing to accept the compromise proposed by England as mediator, and Denmark, relying on the armed intervention of England, had rejected this compromise. The succession of Prince Christian to the Danish throne had brought matters to a standstill. The treaty could not be carried out because its terms were contradictory, the duchies being declared to be an integral part of Denmark, and yet the rights of the German Federation over them were reserved. In the confusion the Prince of Augustenburg revived his claim to the throne of Holstein, and the German people were brought up over the wrongs of their kinsfolk in the duchies, while the Danes grew frantic at the thought of their kinsfolk and a part of their national territory being swallowed up in Germany. It was a question that England could solve only by an arbitrary decision, with the will to back it up by force. His Government supported the Danish contention, but was unwilling to act, and therefore Lord Wodehouse failed. After his return he was appointed Secretary of State for India, but before he could decide with Sir John Lawrence, the new Governor-General, on the course to be followed in regulating the war in Afghanistan and the struggles of Shere Ali, England's protector, for the Afghan throne, he was transferred toward the end of 1864 to the post of Vice-consul in Ireland, which he filled for nearly two years, where he made no mark, but on the strength of his arresting the early Fenians and in keeping with his official advancement was raised in the peerage to be Earl of Kimberley. The Liberal ministry of Earl Russell was succeeded by that of the Earl of Derby in July, 1866. When Mr. Gladstone formed a Cabinet in December, 1868, he made Lord Kimberley Lord Privy Seal. This office was exchanged in 1870 for that of Secretary of State for the Colonies. Diamonds were discovered in South Africa just then. When a mining-camp sprang up on the spot it took the name of the Colonial Secretary, under whose administration it was discovered that, instead of belonging to the Orange State farmers who had settled there, it belonged to half-breed squatters living elsewhere, and was therefore British territory. During his first tenure of the office Rupertland was created into the Canadian province of Manitoba in 1870, the Dominion was empowered to organize the provinces. In 1871 and the last British garrison was withdrawn, Cape Colony received responsible gov-
ernment, and the Australian colonies were re-
lcredited and were restrained from making protective
rates to suit themselves and were invited to es-
tablish intercolonial free trade. In 1874 Mr. Dis-
raeli returned to power, and it was six years be-
fore Mr. Gladstone came in again. Lord Kimber-
ley took charge of the administration of the colo-
nies once more. He had to contend with serious diffi-
culties in South Africa. The attempt to dis-
arm the Basutos had failed, and the Cape Colonists
and the home Government were both at a loss to
know what to do, and each blamed the other.
Then the Transvaalers called upon Mr. Gladstone
to grant them the independence he had inveighed
against the Tories for not granting, and when he
refused they drove the British garrisons out of
the country, defeated the forces sent to chastise
them, and won their independence with their rifles,
prevalent only by a meaningless suzerainty. Lord
Kimberley explained that the Transvaal had been
annexed on the supposition that the inhabitants
desired British administration, which they had
now demonstrated that they did not desire, and
hence annexation was not justifiable; but why it
was necessary for such a demonstration that the
British army must stomach a defeat without a
chance to redeem its honor he could not explain
to the Transvaal, and it appointed the non-
ionally chancellor of the Duchy of Lancaster
when Mr. Bright retired, and in December, 1882,
he left the Colonial Office to become Secretary
of State for India. But Lord Ripon’s promises of representative institutions for
India caused such consternation in Indian official-
ment that the Liberals had doubts about the securi-
ty of British rule in India. He restrained the impulses of Lord Ripon and effectively checked
the Radical movement in England in favor of large
measures of self-government for India, while he
approved the extension of education and of local
representation. When a Russian war scare arose
he assumed a defiant attitude and returned to
a forward policy. Retiring with the ministry in
Jungius’s tenureship, Ripon was appointed Christia Office in Feb-
uary, 1886, till Mr. Gladstone was defeated on
home rule, and went out in August of that year.
In the Gladstone cabinet, formed in August, 1892,
Lord Ripon became the German leader of the
Liberal party in the House of Lords, was Lord
President of the Council as well as Secretary for
India. Although as an orthodox economist he
condemned all proposals to stay the falling rupee
by legislation, he yielded finally to the importun-
ity of the Indian Government after it had wrung
half-hearted approval from Lord Herschell’s com-
mittiee and consented to the closing of the mints
and the temporary restriction of the sale of Cen-
cil bills. Soon afterward, when Lord Rosebery
became the head of the Cabinet, he took the lat-
ter’s place at the Foreign Office, though Lord Rose-
bery did not relinquish his authority to speak in
foreign affairs until he laid down the leadership of
the party in 1896. A lease from the Congo
State of a route for the Cape to Cairo railroad
had to be given up when Germany objected be-
cause it was contrary to treaty. When Russia,
France, and Germany prohibited Japan from
replacing the British in the China trade, and after her vic-
tory over China, England stood helplessly by, un-
willing either to join them or to efficiently support
Japan in resisting their dictation. Since June,
1895, Lord Ripon had been the authoritative
spokesman of the Opposition on foreign affairs,
and during the Boer War, although he had strong
motives for vindicating his own policy in South
Africa and also in the Soudan and in China, he
was careful to say nothing tending to embarrass
the action of the Government. Lord Kimberley
was much interested in education. He was a
member of the senate of the University of London,
succeeding Lord Cranborne as chancellor, and
was president of University College.

Kowalewsky, Alexander, Russian biologist
and anatomist, born near Witebsk, in northwest
Russia, Nov. 10, 1849; died Nov. 22, 1902. His
father was a Pole, and his mother a Russian.
He received his early education at home, and
was then placed in the Engineering School of
Roads and Highways, in St. Petersburg. But
he preferred the study of science to a practical
career. As a result of the student disturbances of
1861 he was obliged to leave the country. He
went to Heidelberg, where he studied chemistry
under Bunsen. He soon developed a taste for
zoology and comparative anatomy, and pursued
these subjects under Brönn and Pagelenstrecher,
and later under Leydig at Tübingen. In 1864 he
published in Russian his first zoological work,
The Anatomy of Insects. He went in 1884 to
Naples, and carried out important researches on
the embryology of the scorpions, and in 1885 and
in 1886 he made researches on the ascidia.
The results of this work, which led to the recognition
of the ascidians as vertebrata, gave a new
impulse and directed the research. After being for a time privat docent at the Uni-
versity of St. Petersburg, he was appointed pro-
fessor extraordinarius at Kazan in 1868, and pro-
fessor ordinarius at Kiev in 1869, and at Odessa in
1874, where he remained until 1890. He was made a
titular member of the Academy of Sciences of
St. Petersburg in the latter year. He was for
many years director of the biological laboratory
at Sebastopol, and did much of his work there.

Kraus, Franz Xavier, German historian, born
in 1841; died Jan. 1, 1902. He was educated for the
priesthood and became a disciple of Dr. Döllinger,
but did not join his Old Catholic schism. He made
researches in ecclesiastical archieology and pub-
lished valuable treatises on the origin and devel-
oment of the Monasticism. He was Professor of Ecclesiastical History in the
University of Freiburg. In 1896 he published a
standard work on the History of Christian Art.

Krupp, Friedrich, German iron-mine
ist, born in Essen; died there, Nov. 22, 1902. His
grandfather, Friedrich, spent his life and his for-
tune in trying to perfect a new process of steel-
making. His father, Alfred, invented a new
method of manufacturing spoons, new machinery
and dies for coinage money, a new Bessemer steel
out of which he made rifles and cannons, a breech-
block for artillery, a seamless tire for car-wheels,
a method of hardening armor-plate, and many
new uses for steel. He built up at Essen the
greatest iron-works in the world, furnishing the
German Government and many others with rifle
barrels and field and naval guns of Bessemer
steel and with ship armor, and all countries with
railroad materials. Friedrich Alfred succeeded to the
ownership and management of the plant on
the death of his father, in 1887. He took in other
steel-works at Rheinhausen and near Magdeburg,
acquired four coal-mines in different parts of
Germany, iron-mine, and after her victory over
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Japan in resisting their dictation. Since June,
1895, Lord Ripon had been the authoritative
spokesman of the Opposition on foreign affairs,
capital, including his share in other enterprises, at the time of his death was estimated at 500,000-000 marks, his income at 20,000,000 marks. The policy of his father toward his workmen was to furnish them with sanitary dwellings, medical attendance, and means of education and recreation, and insurance, keeping them out of the labor-unions, benefit associations, and political organizations. This patriarchal system was greatly extended and developed by the son, who provided model homes at the lowest rental for the families of his 43,000 workmen, with hospitals, schools, and casinos, organized for them a system of cooperative stores, and gave in his will retiring pensions on more favorable terms than the Government or the mutual insurance societies. He was simple and retiring in his habits, but his society and advice were valued by the present German Emperor, who would have liked to give him a title of nobility. He spent his winters at Capri and carried on investigations of the marine fauna of the Mediterranean, of which he collected preserved specimens, and he had an immense aquarium for studying aquatic life and left materials for a book on the subject. The Socialist press of Germany constantly attacked Herr Krupp, and his death is supposed to have been hastened by a slandering, degrading charge against his private character made in the chief organ of the Social-Democratic party, the Völkische Berliner.

**Lago, Carlo**, Italian impresario, born in Italy in 1830; died in Milan, in March, 1902. He had been connected with the production of grand opera in all parts of the world, and was manager of the Italian Opera in St. Petersburg for several years. He also gave several seasons of opera at Drury Lane Theater, London. He first visited this country as manager of conductor with Adelina Patti, when she was under the management of Henry E. Abbey and Maurice Grau; and in 1901 he traveled in the United States as conductor of Mme. Sembrich's concert company. He was one of the best known of the old school of Italian opera impresarios, and was familiar with every detail of the production of an opera, from conducting the orchestra to training the chorus.

**Landesman, Heinrich**, "Hieronymous Lorn," an Austrian poet, born in Nikolsdorf, Moravia, Aug. 9, 1821; died in Brunn, Moravia, Dec. 3, 1902. He lost his hearing at the age of fifteen, and his sight failed not long afterward, but he invented a kind of finger language, which enabled him to communicate his wants and to dictate his poems and other works. His poetry is markedly pessimistic. His writings include Abdul (1843); Wiens poetische Schwingen und Federn (1846); Erzählung des Jahres 1845 (1853); Am Kamin (1858); Erzählungen des Heinrichs von Thümen (1858); Intimes Leben (1860); Philosophisch-kritische Streifzüge (1873); Geflügelte Stunden (1875-78); Tote Schuld (1878); Späte Vergeltung (1879); Der Abend zu Hauser (1881); Ein Schatten aus vergangenen Tagen (1882); Vor dem Attentat (1884); and Die Schöne Wienerin (1886).

**Latey, John**, English novelist, born in London, Oct. 30, 1842; died Sept. 26, 1902. He was the son of John Latey, the founder of the London Illustrated News, and after being educated at Barnstaple, was for forty years connected with the Penny Illustrated Paper, which he edited almost from its beginning in 1861. For a long period he contributed the parliamentary sketches that appeared in the Illustrated News under the signature of "The Silent Member," and in 1890 he became editor of The Sketch. Mr. Latey was the author of a translation of Alexandre Dumas's Mohicans of Paris (1875), and of Paul Feval's Fils du Diable, to which he gave the English title of The Three Red Knights. In his original work he produced the comédietta The Rose of Hastings; The Life of General Gordon; The Showman's Panorama (with W. Mackay) (1880); and the novels Love Clouds (1884); The River of Life (1886); A Daughter of the People; A London Prima Donna; The Queen of Hearts Mine; Diamonds Led; and Hearts were Trumps.

**Latham, Henry**, English clergyman, born in Dover, England, June 4, 1821; died June 5, 1902. He was educated at Cambridge, and entered the Anglican ministry as priest in 1850. His life was spent almost in Cambridge, where he became tutor in Trinity Hall, and fellow of the same institution. He was vice-master of the hall from 1850 to 1888, and was master from the last-named year. He published Geometrical Problems in the Properties of the Conic Sections (1848); On the Recommendations of the University Commission (1857); On the Action of an Examinator in the Duties of a Pastor Pastorum, or the Schooling of the Apostles by Our Lord (1890); A Service of Angels (1894); and The Risen Master (1901).

**Laurie, Mrs. J. W.,** English author, died in Cannes, France, in December, 1902. She was the wife of an Edinburgh educational publisher, and some of her books attained a wide popularity, their circulation reaching into the hundreds of thousands. They include Henry's History of England (1866); Dramas for Children (1869); Henry's Scripture Lessons (1869); Maxwell's Geography (1869); The Queen of the Mice; Tales and Adventures for the Young; and A Trip Round the World. She edited, also, a popular anthology entitled Playtime with the Poets.

**Leake, George**, American born in 1808; died in Perth, June 24, 1902. He belonged to a family that played a prominent part in the political life of Western Australia, and a year after his admission to the bar in 1868 he became Acting Crown Solicitor. He rose to be Acting Attorney-General and a member of the Executive Council in 1886. In 1890 he was elected to the first Legislative Assembly of the colony, from which he resigned so as to retain the post of Crown Solicitor. In May, 1901, he formed a ministry; when it was reconstructed he became Attorney-General as well as Premier, and he died while in office.

**Lecky, Squire Thornton Strafford**, English ship captain, who died at Las Palmas, Canary Islands, Nov. 23, 1902. He had made running surveys of Patagonia, and for personal services to the King of Portugal had received the Holy and Military Order of Jesus Christ. He was a fellow of the Royal Geographical Society and of the Royal Geographical Society. For some years he served as captain in the Inman Line of steamships, and later in the Pacific Steam Navigation Company. He wrote Wrinkles in Practical Navigation, A Sketch of the Work, and The Danger Angle and Off-
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shore Distance Tables (1882); and General Utility Tables (1897).

Ledochowski, Miesczlaus, Polish ecclesiastic, born in Klimontow, in 1822; died in Rome, July 22, 1902. The seat of the Counts Ledochowski, near Sandomir, was in Russian territory that was afterward ceded to Germany. Count Miesczlaus, a younger son, was educated at the Jesuit Nobles' College in Rome, and after being admitted to priest's orders in 1845 he entered the diplomatic service of the Vatican and was employed till 1861 in missions to Lisbon, South America, and Brussel's. In 1865 he was elected Archbishop of Pozan by the cathedral chapter. He discouraged the Polish agitation and sustained the Prussian Government in its policy, and as persona grata at Berlin he was selected by Cardinal Antonelli in 1870 to solicit the support of Prussia for the temporal power of the papacy. He negotiated with Prince Bismarck at Versailles with no success, and henceforth he adopted a hostile attitude with the object of bringing the Prussian Government to terms, taking the lead in the ultramontane Opposition and championing the national aspirations of the Poles. The conflict on education between the Clericalists, led by Dr. Windhorst and inspired by Archbishop Ledochowski, and the Prussian Government (1870); and an issue by the May laws of 1873, requiring every candidate for holy orders to show a certificate of educational qualifications from the state, placing seminaries and nunneries under state supervision, and ordering the ecclesiastical authorities to submit all appointments and transfers for the approval of state officials. The Archbishop was in the lead in this work. He was fined for appointing and transferring parish priests and for other infractions of the new laws until all his property was distrained and finally he was condemned to imprisonment for two years in the fortress of Ostrowo and his archbishops was declared vacant by the Prussian ecclesiastical court. Pope Pius IX refused to recognize his deposition, made him a cardinal in 1875, and after his release in 1876 received him as a guest at the Vatican. Pope Leo XIII made him Prefect-General of the Congregatio de Propaganda Fide. During the Conciliastion the Pope in a letter to the Archbishop made reference to the arbitration of the Pope, and from that time the diplomacy of the Vatican was favorable to German interests. Whatever success the German Emperor and his Government has attained in the effort to supplant the claim of France to protect Catholic missions and Christians in the near and far East has been attributed to the pro-German sympathies of the Red Pope.

Lee, Frederick George, English clergyman, born in Thame, Oxfordshire, England, Jan. 6, 1832; died in England, Jan. 23, 1902. He was educated at Oxford, and was admitted to the priesthood in 1856. From 1877 to 1899 he was vicar of All Saints, Lambeth. He assisted in founding the Association for the Promotion of the Unity of the Church in 1857, and twenty years later he founded the Order of Corporate Reunion, and was in consequence severely criticized by the evangelical party for his supposed Romanizing views. Lee was a frequent visitor at Rome, and when a Roman Catholic communion, and at the close of 1901 the father also became a Roman Catholic. Both as clergyman and as author Dr. Lee was ever busy, and his voluminous publications witness to the activity of his pen. The more important of these are Lay's of the Church, and Other Poems (1831); The Martyrs of Vienne and Lyons (1834); Poems (1856); Petronilla, and Other Poems (1858); Death; Judgment, Hell, and Heaven (1868); The Beauty of Holiness (1889); Words from the Cross (1881); Directorium Anglicanum (2d ed., 1885); Christopher Davenport; Articles of the Augsburg Confession (1885); Morning and Evening Prayers for Children (1866); Sermons: Parochial and Occasional (1868); The Validity of the Orders of the Church of England Maintained and Vindicated (1869); The King's Highway, and Other Poems (1871); Abolition and Rejection of the Athanasian Creed (1872); The Bells of Botteville Tower, and Other Poems (1873); The Christian Doctrine of Prayer for the Departed (1874); Glimpses of the Supernatural (1876); Memorials of Rev. Robert Stephen Hawker, Vicar of Morwenstow (1876); A Glossary of Liturgical and Ecclesiastical Terms (1876); Historical Sketches of the Reformation (1876); More Glimpses of the World Unseen (1878); The Church under Queen Elizabeth (1880); Order out of Chaos (1881); Reginald Barentyne: A Tale of the Times (1881); History and Antiquities of the Church of Thame (1883); Glimpses in the Twilight (1884); King Edward's Reign (1885); Reginald Barentyne: An Historical Sketch (1887); Immodesty in Art (1887); The Church of Haddenham, Berkshire (1888); A Manual of Politics (1889); and Sights and Shadows, being Examples of the Supernatural (1894).

Lidderdale, William, English merchant, born in St. Petersburg, in 1832; died in London, June 26, 1902. He was trained in the counting-house of a Liverpool firm doing business with Russia, where his father was established, and afterward was connected with a shipping firm, which he represented in New York from 1857 till 1883, and then as a partner opened a house in London. In 1870 he was chosen a director of the Bank of England, and in 1889 became governor. The reserve of cash was low and was being withdrawn to South America. There had been a period of buoyant confidence and speculation when early in November, 1890, the bank rate of discount was marked up to 6 per cent, and the run on the bank was the known adequate reason, and it became known that the bank had borrowed $23,000,000 from the Bank of France and £2,500,000 from the Russian treasury. The cause became apparent, and the directors announced the winding up immense sums of English floating capital in Argentine public securities, railroads, and other enterprises that were for the moment unprofitable. The Bank of England and the bankers of London joined hands to enable the Baring firm to liquidate its affairs without sacrificing the interests of its clients, and to carry out the arrangements Mr. Lidderdale remained governor till 1892. He was influential in syndicates holding Chicago and Western and Mexican railroad stocks and in the Council of Foreign Bondholders.

Lieber, Ernst, German politician, born in Camberg, near Wiesbaden, Nov. 16, 1838; died there, March 31, 1902. He studied philosophy and law at Wurzburg, Bonn, Munich, and Heidelberg, was elected to the Diet of Hessie-Nassau, took his seat in the Prussian House of Deputies in 1870, and on the establishment of the empire was elected in 1873 entered the Reichs Cabinet. He joined Dr. Windhorst, the former Hanoverian Minister of State, in forming a united and militant Roman Catholic party, took the lead himself of the Democratic Clerics, and, notwithstanding his failure to succeed to the leadership of the whole party.
When Dr. Windhorst died, in 1891, and when Count von Ballestrem and Baron Hűne failed to induce the emperor to declare war with Count Caprivi on the military bill of 1893, Dr. Lieber, who headed the uncompromising resistance to the increase in the army, assumed henceforth the leadership. He had not the authority and the influence over all sections that Dr. Windhorst wielded, but yet he was able to keep the Center together and maintain party discipline.

Liu-Kun-Yi, Chinese statesman, born in Hunan, about 1820; died in Nanking, Oct. 6, 1902. Coming from the province that furnishes the Chinese army with its best material, he was a soldier by education, and as such he made his way upward in the official hierarchy without literary attainments and speaking only the dialect of his province. In 1860, at the head of one of the armies raised to fight the Taiping rebels, he turned back the tide of revolt in Kiangsi by a series of successful operations. He was Viceroy of Nanking when the Boxer outbreak occurred in Shantung and Pehsi, and the vigilance of the Chinese raised the cry of China for the Chinese in the Yangtze valley, and when the Imperial Government called for troops to defend the capital against the French and the intruders in the city of Tientsin, and the expulsion of Europeans Liu-Kun-Yi, acting in concert with Wang-Chih-Tung, Viceroy of Wuchang, refused to join in the movement and used his authority and the large influence he possessed with his command to repress every demonstration against foreigners. The Yangtse viceroys kept the Boxer movement and the war confined to the northern provinces, and in 1894 the government of Pekin and the negotiation of a new commercial treaty they were able to protect Chinese interests and facilitate a settlement.

Macaulay, James, Scottish novelist, born in Edinburgh, Scotland, May 22, 1817; died there, June 20, 1902. He was educated at the university of his native city, and was for thirty-five years editor in chief of the Religious Tract Society. He was joint editor of the Literary Gazette in 1851-'57, and in 1858 became editor of the Leisure Hour Sunday at Home. He founded the popular periodicals, and the Boy's Own Paper. His published works comprise Across the Ferry; First Impressions of America and its People (1871); Memory Helps in British History (1873); A Letter and a Paper (1873); A Plea for Mercy to Animals, which attracted general attention (1875); All True Records of Adventure (1879); Gray Hawk: Life and Adventures among the Red Indians (1883); Luther Anecdotes (1883); True Tales of Travel and Adventure, Valor and Virtue (1884); Sea Pictures drawn with Pen and Pencil, new edition (1884); Stirring Stories of Peace and War by Land and Sea (1886); Gordon Anecdotes (1885); Livingstone Anecdotes (1885); Thrilling Tales of Enterprise and Peril, Adventure and Heroism (1886); Whitefield Anecdotes (1886); Wonderful Stories of Daring, Peril and Adventure (1887); Victoria, her Life and Reign (1887); and From Middy to Admiral of the Fleet.

MacEwery, John, Irish Roman Catholic prelate, born in Louisburgh, County Mayo, Ireland, in April, 1817; died in Tuam, Ireland, Nov. 28, 1902. His education was received at Maynooth College, and he was ordained priest in 1840. In 1842 he was appointed Professor of Scripture in Saint Jarlath's College, Tuam, and subsequently he was president of that institution several years. He was a member of the Papal Council in 1870, and in 1866 Apostolical Administrator of Kilmacduagh and Kilnefara, continuing, however, as Bishop of Galway. Appointed bishop-coadjutor of the archdiocese of Tuam in 1876, he succeeded Archbishop McIreanagh as the titular of that see in 1888. He was the author of an English Commentary on all the New Testament except the Apocalypse.

MacGibbon, David, Scottish architect, born in Edinburgh, Scotland, Nov. 21, 1831; died there, Feb. 23, 1902. He received his education at Edinburgh University, and prepared for his profession in his native city and in London, spending much time also in architectural investigations in Italy, France, and Spain. With Thomas Ross he entered upon the practise of architecture in Edinburgh, and the firm executed many important works in that city and its vicinity. Shortly before his death the firm had undertaken the restoration of Iona Cathedral. In 1888 Mr. MacGibbon published a readable volume on The Architecture of Provence and the Rivieras, and with Mr. Ross he was author of The Castellated and Domestic Architecture of Scotland from the Twelfth to the Eighteenth Century, a work of great value (1886) on the Ecclesiastical Architecture of Scotland from the Earliest Christian Times to the Seventeenth Century (1896); and The Five Great Churches of Galloway (1899).

Mackay, Archibald, the Irish novelist, born in Bonar Bridge, Sutherlandshire, Scotland, in 1833; died in Edinburgh, Dec. 4, 1902. He was educated at the University of St. Andrews, and was a member of the Edinburgh School Board from 1897, and editor of the Educational News. His published works include A Manual of Modern Geography (1861); Outlines of Modern Geography (for Beginners, 1867); First Steps in Geography (1869); First Steps in Geography (1869); Physical Geography (1869); Rime Geography (1874); Intermediate Geography (1874); Foreign Systems of Education; Esthetics in Schools; A History of Scotland; A Plea for Our Private Schools; and Free Trade in Teaching.

Maclear, George Frederick, English clergyman, born in Bedford, England, Feb. 3, 1833; died in Canterbury, Oct. 17, 1902. He was educated at Cambridge, distinguishing himself by excellence in theological studies and winning several prizes. He was ordained priest and The Girl's Own Paper. His published works comprise Across the Ferry; First Impressions of America and its People (1871); Memory Helps in British History (1873); A Letter and a Paper (1873); A Plea for Mercy to Animals, which attracted general attention (1875); All True: Records of Adventure (1879); Gray Hawk: Life and Adventures among the Red Indians (1883); Luther Anecdotes (1883); True Tales of Travel and Adventure, Valor and Virtue (1884); Sea Pictures drawn with Pen and Pencil, new edition (1884); Stirring Stories of Peace and War by Land and Sea (1886); Gordon Anecdotes (1885); Livingstone Anecdotes (1885); Thrilling Tales of Enterprise and Peril, Adventure and Heroism (1886); Whitefield Anecdotes (1886); Wonderful Stories of Daring, Peril and Adventure (1887); Victoria, her Life and Reign (1887); and From Middy to Admiral of the Fleet.

Maclean, George Frederick, English clergyman, born in Bedford, England, Feb. 3, 1833; died in Canterbury, Oct. 17, 1902. He was educated at Cambridge, distinguishing himself by excellence in theological studies and winning several prizes. He was ordained priest and The Girl's Own Paper. His published works comprise Across the Ferry; First Impressions of America and its People (1871); Memory Helps in British History (1873); A Letter and a Paper (1873); A Plea for Mercy to Animals, which attracted general attention (1875); All True: Records of Adventure (1879); Gray Hawk: Life and Adventures among the Red Indians (1883); Luther Anecdotes (1883); True Tales of Travel and Adventure, Valor and Virtue (1884); Sea Pictures drawn with Pen and Pencil, new edition (1884); Stirring Stories of Peace and War by Land and Sea (1886); Gordon Anecdotes (1885); Livingstone Anecdotes (1885); Thrilling Tales of Enterprise and Peril, Adventure and Heroism (1886); Whitefield Anecdotes (1886); Wonderful Stories of Daring, Peril and Adventure (1887); Victoria, her Life and Reign (1887); and From Middy to Admiral of the Fleet.
toration (1888); Introduction to the Creeds (1889); Introduction to the Articles (joint author) (1895). As editor Canon Macauley published The Gospel of Saint Mark, with Notes and Introduction (1877); and The Book of Joshua, with Notes and Introduction (1878).

Macleod, Henry Dunning, English barrister, born in 1821; died July 16, 1902. His education was obtained at Cambridge, and he was called to the bar of the Inner Temple in 1849. His published writings include The Theory and Practice of Banking (1855-56); Elements of Political Economy (1858); Dictionary of Political Economy (1862); Principles of Economical Philosophy (1872); The Elements of Banking (1876); Economics for Beginners (1878); The Elements of Economics (1881-82); Institute of Bankers in Scotland (1882); The Theory of Credit (1889); and Bimetallism.

Margareta Sophia, Duchess of Württemberg, born in 1870; died Aug. 4, 1902. She was an archduchess of Austria, niece of the Emperor Franz Joseph, being a daughter of the Archduke Karl Ludwig and the Princess Annauza of the Two Sicilies. She was married to Duke Albrecht of Württemberg, son of Duke Philip, brother and heir presumptive of the King, in January, 1893, and has two children.

Marie Henrietta, Queen of the Belgians, born in Schönbrunn, Aug. 23, 1836; died in Spa, Sept. 17, 1902. She was an Austrian Archduchess, daughter of the Emperor Joseph Palatine of Hungary, third son of the Emperor Leopold II, and married the Crown-Prince Leopold of Belgium when both were only seventeen years old. She had been Queen of the Belgians since 1865, but lived a sequestered life, saddened by the death of her only son in 1869 and by the domestic misfortunes of her daughter Stephanie, but consoled by the presence of her youngest daughter, the Princess Clementine. She was a collector of lace and did much to revive the lace industry in Belgium, and for her charities was beloved by the Belgian people.

Martin, Arthur Patchett, English author, born in Woolwich, England, Feb. 18, 1851; died in Teneriffe, Canary Islands, Feb. 15, 1902. When a child he was taken by his parents to Melbourne, Australia, and attended the University of Melbourne. He entered the Victorian Civil Service in 1868, resigning in 1882. With others he founded the Melbourne Review in 1876, and was editor until 1882, when he settled in London. His published books include Lays of To-day, or Verses in Jest and Earnest (1878); Fernshave: Sketches in Prose and Verse (1881); Australia and the Empire (1889); True Stories from Australian History (1893); Life and Letters of Robert Lowe, Viscount Sherbrooke (1893); The Withered Jester, and Other Verses (1895); and Beginners of Australian Literature (1900).

Maurer, Konrad von, German archeologist and ethnologist, born in Frankenthal, April 29, 1823; died Sept. 18, 1902. He was an authority of the first rank on the early history and laws of the Teutonic and Scandinavian peoples. He published an important series of works on the constitution and history of Iceland. He was a good Scandinavian scholar, and edited the first edition of the Gullthorisagasa. His works include Die Bekherung des Nordwregischen Stammes zum Christentum; Island von seiner ersten Entdeckung bis zum Jahre 1100; and Das Alter des Grossparcherametes in Norwegen; Studien über das sogenannte Christenrecht König Sverris; und das alteste Hofrecht des Nordens. He also published a history of Icelandic popular legends of the present day.
central executive during the latter part of the war when Schalk Burger acted as President. In the final peace negotiations he played a conspicuous part, and when the war was over he went to Europe with other leaders to interest the friends of the Boers in the economical restoration of the conquered republics.

Michie, Alexander, British explorer, born in Easdale, Fifeshire, Scotland, in 1833; died in London, Aug. 8, 1902. He received a commercial training, was sent to Hong-Kong at the age of nineteen, became the Shanghai representative and partner in the firm at the age of twenty-four, and rendered services to Admiral Sir James Hope in operations against the Taiping rebels. He also had much to do with opening treaty ports in northern China. In 1863 he returned to Europe overland, and published The Siberian Route from Pekin to Petersburg through Mongolia and Tartary. On returning to Shanghai he was sent on a mission to western China, and made a report on Szechuan and other provinces. He returned again to Europe, but went to China again in 1883 and settled in Tientsin. In 1900 he published An Englishman in China, a biography of Sir Rutherford Alcock.

Montepin, Count Aymon Xavier de, French novelist and playwright, born in Apremont (Hauter Savoie), France, Oct. 13, 1843; died in Paris, May 3, 1902. In 1848 he founded the journal Le Carnard, and was conspicuous for his antirevolutionary sympathies. He soon forsook journalism for fiction, and for more than forty years poured forth a stream of novels and romances, each work in several volumes. His separate works number more than 350, and many of them were extremely popular. The following is a partial list of Count Montepin’s novels: Les Chevaliers du Languelet (1847); Les Viveurs d’Autrefois (1848); Les Amours d’un Fou (1849); Le Breil de Dames (1849); Les Confessions d’un Bohème (1849-50); Le Loup Noir (1851); Mignonette (1851); Le Vicomte Raphael; La Reine de Saba; L’Epée du Commandeur; Mademoiselle Lucier; Geneviève Gaillot; Un Roi de la Mode; Le Club des Hirondelles; Les Fils de Famille; Le Fils d’Ariane; Les Oiseaux de Nuit; Les Valets de Cœur; L’Auberge du Soleil d’Or (1852-55); Un Gentilhomme de Grenoble (1854); L’Amour dans la Perle du Palais Royal; Les Filles de Plâtre (1855); Les Viveurs de Paris (1852-56); L’Officier de Fortune (1857); Souvenirs intimés d’un Garde du Corps au 26e (1858); Les Pierre des Viveurs de Province (1859-60); La Gitane (1860); Le Comprèr Leroux (1860); Un Amour Maudit (1861); Les Marionnettes du Diable (1861); Les Compagnons de la Torche (1862); La Reine de la Nuit (1863); Les Pirates de la Seine (1864); Les Enfers de Paris (1865); La Ferme des Oliviers (1865); La Fille Meurtir (1866); Maison Maudite (1867); Le Moulin Rouge (1867); La Voyante (1873); Les Drames de l’Adultère (1873); La Femme de Paillasse (1874); Les Tragédies de Paris (1874); La Vicomtesse Germaine (1874-75); Le Secret de la Comtesse (1876); La Sorcière Rouge (1876); Le Ventilogue (1876); Sa Majeste l’Argent (1877); La Bataille (1877); Un Débuitant (1877); La Traite des Blanches (1877); Deux Amies de Saint-Denis (1878); La Marquise Castella (1878); La Mort Viebante (1878); Les Drames du Mariage (1878); Le Calcinien des Folies (1879); Le Château des Désastres (1879); Le Dernier des Courténay (1880); Les Filles de Bronze (1880); Le Fiaire (1880); Jean Judi, Justices (1880); Sœur Suzanne (1880); Henriette de Vauvert (1880); La Baladine (1881); Les Amours d’Olivier (1881); La Mattresse Masquée (1881); Son Altresse l’Amour (1881); La Fille de Marguerite (1881-82); Le Pantins de Mme. le Diabol (1882); Mme. de Frères (1882); Le Secret de Titus (1883); Le Secret et la Mort (1883); Le Dernier du d’Hallili (1883); Les Amours de Provincie (1884); La Demoiselle de Compagnie (1884); La Porteuse de Pain (1884-85); Le Crime d’Amis (1885); Deux Amours; Hélène (1885); P. L. M. la Belle Angèle (1885); Rigolo (1886); Les Yeux d’Emma Rose (1886); Les Filles du Saltrimbanque (1886); Les Desseins de Paris: Le Marchand de Diamants (1887); Un Famille Russe (1887); Le Roman de la Miserie (1887); Fille de Couritsane (1887); Les Débuts d’une Étoile (1888); Le Gros Lot (1888); La Fée des Sables (1888); Le Mariage de Lanceau (1889); Marétre (1890); La Tirschue de Cartes (1890); La Fille de Fou (1890); Trois Millions de Dot (1891); La Dame aux Enervue (1891). His plays, produced by him singly or in collaboration, include Les Trois Baisers (1846); Le Connetable de Bourbons (1846); Les Fleuris Animés; Le Rosignol des Salons (1850); Les Étoiles (1850); Le Vol à la Duchesse (1857); Pauline (1857); Les Chevaliers du Lanquinet; Les Frères Cores; La Tour Saint-Jacques la Boucherie (with Dumas); Les Viveurs de Paris (1857); La Nuit du 20 Septembre (1858); L’Homme aux Figures de Cire (with Dornay) (1865); Lantara (1865); Bas du Cuir (with Dornay) (1866); L’Ile des Sirènes (1866); La Magicienne du Palasy Royal (1867); La Fée Chair (1867); Tabarin (with Grange) (1873); Le Bearnaise (1878); La Porteuse de Pain (with Dornay) (1880). Montepin was emphatically a novelist for the people, and he would have disclaimed pretensions to literary style. His novels bear a strong resemblance to each other, and the same is true of his dramas. He was for a long time identified with Le Petit Journal, in every issue of which an instalment of a story of his appeared as a feuilleton.

Moraes, José Presidente de, ex-President of Brazil, born in São Paulo; died there, Nov. 30, 1902. He was one of the early republicans of Brazil, the leader of the Liberal movement that began in his own province under his direction, and in the ensuing war of independence of Brazil against the South American Confederation II and eventuated in the revolution of 1889. He was a Deputy in the provincial Legislature, afterwards sat in the National Assembly, was Governor of his State and also was a Member of Congress. As a Federal Senator and Vice-President of the Senate, and, when the military dictatorship of Marshal Floriano Peixoto came to an end after the revolt of the fleet, he was elected the first civil President of Brazil in 1894. During his four years in office he had great difficulties to overcome, and in 1897 he barely escaped assassination. He succeeded nevertheless in pacifying the country. Retiring to his plantation after his administration expired, he led the Opposition party in São Paulo and placed himself at the head of an abortive movement for the revision of the Federal Constitution.

Muhlfeld, Luden, French novelist and critic, born Aug. 4, 1870; died in November, 1902. He was sublibrarian of the Sorbonne, 1890-95, and successively thereafter dramatic critic of the Revue de l’Art Dramatique, Revue Blanche, and the Echo de Paris. He was one of the most brilliant of recent French novelists, never appearing in book form but a month before his death, at once ran through twenty editions. His other novels are Le Mauvais Désir (1898); and Carrière d’André Tourette (1900).
Münster zu Denneburg, Georg Herbert, Prince, a German diplomat, born in London, Dec. 23, 1809; died in Hanover, March 3, 1892. He was the son of the Hanoverian minister at the court of George IV, and after finishing his studies at Bonn, Heidelberg, and Göttingen, he entered the diplomatic service. He represented Hanover at St. Petersburg from 1856 to 1864. In 1866 he tried to arrange an understanding with Prussia, and after Hanover was annexed he left the Guelph party, writing pamphlets in defense of the Prussian supremacy and a book on the political situation in Europe since the Congress of Vienna in 1815. His father had dreamed of uniting the Low Germans and the Dutch under the Hanoverian Guelphs, and therefore his apostasy was flagrant in the eyes of the irreconcilable Hanoverians. He represented Goslar in the Reichstag till 1873, when Prince Bismarck made him minister to London. Count Münster, who was quite English in manners and views of life and had an English wife, a daughter of Lord Roslyn, helped to preserve friendly relations between Germany and Great Britain and to secure the cooperation of the latter in some questions of high politics. In 1885, when it was necessary to find a successor to Prince Leiningen as British ambassador, he was transferred to Paris. He won a social success in Paris, as he had in London, and brought about better political relations between the two countries. He resigned till the advance toward reconciliation was checked for a time at the formation of the Franco-Russian alliance. Count Münster was delegated to represent the British government in the Hague. For his defense of German interests there he received the title of Prince von Derneberg, a title that his father had declined when the Prince Regent of Hanover gave him the old monastic estate of that name for his services at the Vienna Congress. In January, 1901, Prince Münster was succeeded as ambassador at Paris by Prince Rudolph.

Murray, Francis Henry, English clergyman, born in Bishop's Court, Isle of Man, in 1820; died in Chislehurst, England, Oct. 11, 1902. He was educated at Trinity College, Cambridge, and was ordained priest in 1845. He officiated as curate of Northfield, Birmingham, from 1843 till 1846, and receiving in the last-named year the living of Chislehurst, continued to hold it as rector till his death. He became rural dean of Dartford in 1887, and was appointed honorary canon of Canterbury Cathedral in 1900. Early in his career Canon Murray associated himself with the Tractarian movement. He took an important part in the compilation of Hymns, Ancient and Modern, and was the author of A Catena of Authorities with Regard to the Altar and the Eucharistic Sacrifice (1857); and The Lord Working with Them (1888).

Nachbars, Franz, German tenor, born in Schonegg, near Würtemberg, in 1833; died in Munich, March 21, 1892. He was a leading tenor singer in Germany for years, his voice having first attracted the attention of Johann Pischek, the famous bandone, who advised him to cultivate it for grand opera. He studied at Milan under Lamperti, and sang in Hanover, Darmstadt, Prague, and Vienna, and was finally engaged as first tenor at the opera in Munich, where he sang until 1889, when he retired from professional life.

Nettlestis, John Trivet, English artist and author, born in Kettering, England, Feb. 11, 1841; died in London, Aug. 31, 1902. His education was received at school and he studied painting under Poynter in the Slade School, London. His specialty was the painting of wild animals, and his canvases display much vigor of imagination. Among his more striking pictures are Puma devouring a Peacock; A Big Drink; A Death Grip; A Mighty Hunter; The Blood Trail; Blind; and Refuge. His literary work comprises Robert Browning: Essays and Thoughts, a valued contribution to Browning literature (1890); and George Morland and the Evolution from him of Some Later Painters (1898).

Ommannay, George Druce Wynnne, English clergyman, died in London, April 19, 1902, at the age of eighty-three. After receiving an education at Cambridge, he entered the Anglican priesthood in 1843, and was successively curate of Edwinstowe, Notts, in 1843-49; of Camely, Somerset, in 1849-52; of Aldbourne, Wilts, in 1852-53; and of Woodborough, Wilts, in 1857-58. From 1884 until his death he was a prebendary of Wells Cathedral. He was the author of The Athanasian Creed with Reference to its Damatory Clauses (1872); The Athanasian Creed: Its Uses in the Services of the Church (1872); The Athanasian Creed: An Examination of Recent Theories respecting its Date and Origin (1875); The Early History of the Athanasian Creed, (1886); married with a deceased Wife's Sister (1883); The S. P. C. K. and the Creed of Saint Athanasius (1884).

Owen, Robert, English clergyman, born about 1820; died in Barrow in Furness, Lancashire, April 8, 1902. He was educated at Oxford, and although he took orders he never held prebendary, but passed his life in study. He professed to follow the lines laid down by Newman and Keble in the earlier stages of the Oxford movement. His writings include The Kymri: Their Origin, History, and International Relations (1891).

Parker, Joseph, English non-conformist preacher, born in Hexham, Northumberland, April 9, 1830; died in London, Nov. 28, 1902. When twelve years old he became a teetotaler and organized a drum and fife band in the temperance cause. He taught himself elocution, becoming a good speaker before he was seventeen. In June, 1849, he delivered his first sermon in a saw-pit on a village green. Next he taught a school, at the same time engaging in vigorous itinerant preaching. In 1851 he married Annie Nesbitt, a farmer's daughter, who died twelve years later. He was ordained a minister of the Congregational Church at Banbury in 1853. Five years later he became pastor of Cavendish Street Chapel, Manchester, where he remained eleven years. In 1864 he married Emma Jane Common, who for thirty-four years was a valuable assistant to him in his ministry. His fame soon became world-wide, and Chicago University gave him the degree of D.D. In 1869
Dr. Parker went to London at the repeated invitation of the oldest Congregational body in that city. Here he built the City Temple, which was opened on May 19, 1874, and his ministry there was interrupted only by brief vacations. He was no respecter of persons, and freely denounced the Prince of Wales (now King) for his gambling and immoralities and the Sultan of Turkey for his atrocities. At several times he visited the United States, preaching in Plymouth Church, Brooklyn, and delivering a eulogy on Henry Ward Beecher in that city. Although stabling in his methods, he was orthodox as to the fundamentals of Christianity, as shown by his book Ecce Deus (1868), in answer to Prof. Seeley's Ecce Homo. He also wrote Emmanuel (1868); Springfield Abbey (1869); Ad Clerum (1870); 'The Paraclete' (1874); 'The Priesthood of Christ' (1876); 'The Inner Life of Christ' (1881); 'Apostolic Life' (1884); 'Tyne Clydes' (1883); and an autobiography (1889). His sermons were published in a series of 25 volumes, under the title of 'The People's Bible.'

James Charles Kegan, English publisher and author born in White Lackington, Somerset, England, March 8, 1828; died in London, July 19, 1902. He was educated at Eton and Oxford. He took orders in the Anglican Church, and was curate of Great Tew in 1851, and at Bloxham in 1852. After spending ten years as tutor at Eton, he became vicar of Sturminster, Dorset, remaining there nine years. His religious views having now become a positive character, he resigned his living, and became reader for the publishing house of Henry S. King, whom he succeeded in the business. With him was presently associated a son of Archbishop Trench, and the firm published several valuable series of books and 'The Nineteenth Century.' Later Mr. Paul met with reverses, and the firm became a limited company, of which he long continued as manager, retiring in 1889. In his latest years he entered the Roman Catholic Church. His writings include a Translation of Faust (1873); William Godwin: His Friends and Contemporaries (1876); Mary Woolstoncraft's Letters to Imlay, with Memoir (1878); Biographical Sketches (1883); Maria Drummond: A Sketch (1891); Faith and Unfaith (1892); and Fantasia (1893), a translation of Huysman's En Route; By the Wayside (verse); Memories (1890).

Paul, Julian, Lord, English diplomatist born in 1823, died at Washington, May 24, 1902. He was the son of a country gentleman of Gloucestershire, was educated at Marlborough College and in Paris and Geneva, was called to the bar in 1852, and practised as a barrister and later as a conveyancer, with a short intermission when he was private secretary to Sir Samuel Moresworth, Colonial Minister. In 1862 he went to Hong Kong, where he became Attorney-General in 1865, was a member of the Legislative and Executive Councils, and became Chief Justice. In 1872 he went to the Leeward Islands as Chief Justice, and on returning to England in 1874 became legal assistant at the Colonial Office. In 1876 he was appointed legal assistant under-secretary at the Foreign Office and received the colonial order of knighthood. In 1882 Sir Julian Pauncefoote was appointed permanent Under-Secretary of State for Foreign Affairs. He represented Great Britain in 1885 on the Suez Canal commission, and in 1888 was made a knight of the Bath. In 1889 he was selected to restore to a normal footing diplomatic relations with the United States, which had been left in the care of a chargé d'affaires since President Cleveland in the previous year had given his passports to Sir Lionel Sackville West. There were many unsettled questions between England and the United States, and Lord Salisbury decided to try the experiment of entrusting the delicate situation to a man of legal and judicial training, hoping that this would prove a better equipment for dealing with American statesmen than diplomatic experience. The principle of arbitration was accepted in the Berlin Sea dispute in 1890 and a treaty was signed in 1892. He managed the critical Venezuela question in such a way as to extirpate his Government from an embarrassing position with the least possible loss of dignity. As a solace he negotiated the general arbitration treaty between Great Britain and the United States, but by the vote of the Senate such an entanglement was avoided. He sought unsuccessfully to clear away the vexations petty quibbles that caused friction between the United States and Canada through a joint commission. He arranged a modus vivendi and a provisional boundary in the Alaska frontier dispute. He endeavored to replace the mischievous Clayton-Bulwer treaty with one that preserved an equivalent for the advantages that it gratuitously gave to Great Britain, and when the Senate rejected this he arranged a compromise between the Senate and Lord Lansdowne. The British legation was raised to the rank of an embassy in 1893, Congress having passed an act for the promotion of American ministers to be ambassadors to such powers as should send ambassadors to the United States. Sir Julian Pauncefoote was the first of the ambassadors to present his credentials. In 1896 he reached the legal age for retirement, but he was requested to remain for another year, and at its close the request was repeated, he having been meanwhile raised to the peerage of Pauncefoote of Prestwick. He was elected in recognition of his services at the Hague Peace Conference, and when the second year had passed, as difficult negotiations were not yet concluded and a presidential election was near, he was still retained at his post. At the time when the Spanish War was imminent he was the dean of the diplomatic body at Washington. The European cabinets were considering among themselves some means of bringing pressure upon the United States to prevent the threatened intervention in Cuba. The policy of England was to hold herself apart and gain credit and prestige by preventing war either by independent action or by dictating the concerted action. The British ambassador sounded the American Government as to the prospects of mediation and found that it would not be acceptable. When the representatives of the powers, who had already presented a note to the President expressing hopes for a peaceful solution, presented another joint note, he drew up one in terms which he ascertained that the President would receive. Suggestions of an imperative remonstrance were made by the Austrian minister. Alterations were
made at the suggestion of his colleagues, and it was referred to the respective governments. The British Government vetoed the presentation of such a remonstrance, and so did the German Government. Lord Pauncefote was the senior British delegate to the Peace Conference at The Hague in 1896. His work in drafting with Mr. O'Conor the proposed Anglo-American arbitration treaty had made him one of the greatest experts and enthusiasts on the subject of international arbitration.

To him and to the American delegates more than to any others was due the successful outcome of the conference, and it was at their suggestion that a permanent arbitration tribunal was created.

Peach, Edward, English army officer, born in 1869; died in December, 1902. His education was obtained at King's College, London, and Sandhurst Military College, and he entered the army in 1884, serving in the Burmese expedition of 1885–86. He was gazetted captain in 1889, and served on the northwest India frontiers 1897–98, and in South Africa during 1897–98. For bravery in the latter service he was brevetted major. He was the author of Savage Warfare, a work officially recommended to the army and subsequently adopted as a text-book for infantry training.

Pollen, John Hungerford, English art critic, born in 1826; will be longer, Dec. 2, 1902. He was educated at Oxford, studied art, and while fellow of Merton decorated the ceiling of the college chapel. Taking orders in the English Church, he was for five Sundays rector of Saint Saviour's Church, Leeds, but later was one of the followers of the second Oxford Movement to Rome, and was appointed Professor of Fine Arts in the Catholic University of Dublin. He was married in 1855, and three of his sons became Roman Catholic priests. He belonged to various archeological and art societies, and was official editor of the South Kensington Museum. His published writings comprise Decorative Art in its Connexion with Modern Science (1863); Ancient and Modern Furniture and Workmanship in the South Kensington Museum (1874); The Trajan Column (1874); Gold and Silversmith's Work (1876); Furniture and Modern Workmanship (1876); and Ancient and Modern Gold and Silversmith's Work and Ornament (1876). Fyeftsaff, Mikhail Vasilievich, Russian geographer, born in 1843; died March 10, 1902. He received his early education in a military school in Moscow, and went to Peking, where he remained for several years, and in the meantime he was attached to the staff of the Russian legation. After completing his studies he remained for fifteen years in the general staff at St. Petersburg, making important journeys in Dzungaria and northwestern Mongolia. He was also connected with the great Chinese surveys in 1880 for determining the Russo-Chinese boundary-line. The scientific results of the first two journeys were published in the Memoirs of the West Siberian Geographical Society. After the sudden death of Prjevalsky, Fyeftsaff was made head of the Tibet expedition, and in company with Roborovsky and Koltzoff and the geologist Bogdanovitch, he spent two years in eastern Turkestan and the Gobi. The results of these expeditions were published in 3 large volumes by the Russian Geographical Society. He also published an important paper on the determination of latitudes from the corresponding altitudes of stars, and another on barometrical leveling.

Renon, Emil Jean, French meteorologist, born in Vendôme, March 8, 1815; died in Paris St. Maur, April 6, 1902. He spent two years at the German universities, being especially attracted by Gauß's lectures at Göttingen. From 1839 to 1842 he was attached to the scientific commission of Algeria, and he published a Description Géologique de l'Algérie. He subsequently published a similar general descriptive work on Morocco. He was active in founding the Société Météorologique in 1853, was its secretary eleven years, and was four times elected to its presidency. He was one of the meteorological committee that established the Observatory of Montsouris. In 1872 he was officially appointed director of a laboratory of meteorology, an office which he held until his death. The observatory was first located at Choisy le Roi, was soon moved to Parc St. Maur, and on the establishment of the Bureau Central de Météorologie, was finally located in a plot of ground designed for the bureau, where it still remains.
half his mind to it, had become a great capitalist at twenty-five. The discovery of the Kimberley mines, when American engineering methods were employed, increased by leaps and bounds the production of diamonds, which American engineering methods were employed, increased by leaps and bounds the consumption, although an unlimited demand for diamonds was growing up in the United States and other countries. The competition of the different mines was likely to destroy the market and render the mining properties valueless, for unless prices could be kept firm the demand would naturally diminish, instead of continuing to increase. Cecil Rhodes, who was the managing director and principal owner of the De Beers, the largest of the companies, was one of the first to see that the remedy was consolidation and limitation of output, and was the first to act. He gradually absorbed the smaller concerns, and then negotiated an amalgamation with the largest companies. When dealing with the two chief operators besides himself he agreed to the terms they asked on condition that his one demand should be complied with, which was that the profits of the new De Beers consolidated company might be used for political purposes in extending British rule over the northern countries. The conflagrations of the native tribes in the Transvaal, however, were not business, to which he replied that it was his business. He cared little for what money could buy and nothing for money in itself, but he had an exaggerated opinion of its ability to bring about the desired political results, believing that there was no use in having big ideas if you have not the money to carry them out. The first three years after his arrival saw such vast work of amalgamation, whereby the competition of the small mining concerns that were cutting prices was removed and arrangements could be made with the large corporations to divide the market. This business ended, Cecil Rhodes entered the Cape Legislature in 1881 as a member of the Assembly for Kimberley. He went over to England in the same year to take his degree at Oxford. In the Assembly he came at once into conflict with Paul Kruger, under whose lead the Transvaal Boers had recovered their independence, one of the conditions being that they should not extend their rule to the westward of the existing boundaries into Bechuanaland or Griqualand West. Individual Boers, however, went over the border and by treaty with native chiefs obtained territory on which they based the independent republic of Stellaland. No expansion of British territory northward was at that time desired. The Little England policy being predominant in Great Britain, but in Cape Colony Rhodes worked up a sentiment of jealousy of the Transvaal, and in England, too, by pointing out the danger of Germany and the Transvaal shutting off the trade route to the north, he won approval of his plan of acquiring Bechuanaland. While a member of the commission appointed to fix the western boundary of the Transvaal he obtained a cession of the lands of Mauching and Bechuanas, and by virtue of this a British protectorate was declared over all Bechuanaland in 1884 and a treaty was made with the Transvaal in which return for the ostensible withdrawal of the claim of suzerainty they accepted the boundary laid down for them on the west and agreed to confine themselves within their existing frontier on the east. He also had practical plans of an indefinite imperial expansion northward. He could accomplish nothing in Cape politics if he identified himself with the British party, and in 1890 he left the Dutch at the Cape of the advantage and necessity for the future of their commonwealth of
holding the Boer republics and German ambitions in check and extending its trade and power much farther south than it could do for them, he wrested the leadership of the Afrikander party from Hofmeyr, the advocate of a United States of South Africa under its own flag. But he did not accomplish until he had attained brilliant imperial successes that conferred prestige and material advantages upon Cape Colony. Creeping native intruders who had seized the trade route in Bencuanland were ousted by means of a military expedition under Sir Charles Warren, sanctioned by the Gladstone Government. Hogg, head of the Cape of Good Hope, had adopted the views of Cecil Rhodes. These views of imperial expansion, which expanded themselves into a vision of the whole of the continent of Africa from the Cape to Cairo under the British flag, did not imply English rule in South Africa or imperial control of the kind that had often exasperated the Dutch. Rhodes stood for an upholding of self-government and in general of the Dutch views of policy in native, educational, fiscal, and other matters as the Bond leaders. The only exception made was the letter of his in which his great antagonist, was that he wanted to preserve the imperial connection, whereas the Transvaal President wanted to unite South Africa under republican institutions. Cape Colony was not willing to assume expenses or responsibilities, and the benefits that Rhodes bestowed on the colony were obtained at the charge of the Imperial Government or, more frequently, by means of private funds that were given into his hands for his enterprises, combining commercial speculation with empire building. In the final consolidation of the Kimberley mines, completed in 1887, the trust deed placed large sums in his disposal for political purposes, and other funds were raised among the financial men of London who were delighted with schemes of gain in which possible losses could be charged to patriotism. The Cape Colony declined to take Bencuanland at first, but Rhodes made it British, and then proceeded to expand the empire as a private enterprise. The Matabele, Lobengula, whose Zulu warriors terrorized all the region between the Transvaal and the Zambesi, was courted both by Boers and Germans and by English agents who furnished him with arms and money in return for equivocal concessions. Rhodes negotiated with him for the right to hunt gold in the territories over which he claimed away, and in virtue of this concession obtained in 1889 a royal charter conferring on the British South Africa Company, which he formed, political and military dominion and a commercial and industrial monopoly in the name of the British Crown over the whole basin of the Zambesi, necessitating a warlike demonstration against Portugal, who had claimed all this territory for centuries. Cecil Rhodes took the whole management of this extraordinary enterprise, built a railroad through to Mashonaland, and afterward another from the east coast, endeavored to open the mines, and did attract a community of gold-seekers to the country. When he went to England in 1888 to organize the chartered company he contributed £10,000 to the funds of the Irish home-rule party. His idea was to securely, not to strengthen, the central power and the authority of England in the empire. He hoped to see separate parliaments in both Ireland and Scotland and an imperial federation, the British colonies would each have its proportional representation in the Imperial Parliament. He extended the operations of the chartered company beyond the Zambezi up to Lake Tanganyika, subsidized the British colony in Nyasaland, and promised to build a telegraph-line through the length of Africa in order to disavow the Imperial Government from abandoning Uganda. When Lobengula, declaring that he had only given the English a right to dig gold, not to rule the country, disputed the authority of the company, Cecil Rhodes organized a military force and in a rapid and ruthless campaign half exterminated the Matabele. With cool courage he went without a guard to Lobengula's kraal and made peace on his own terms. He became the most conspicuous figure in Cape politics as soon as he had annexed to the British Empire and brought within the political and economical ambit of Anglo-Dutch South Africa territories nearly as great as British India, full of material resources and commercial possibilities. He entered into an alliance with Mr. Hofmeyr's Afrikander Bond, and in 1890 took the premiership of Cape Colony, dazzling both the British and the Dutch parties with his brilliant imperialistic schemes, on the strength of which he induced the former to accept the Dutch domestic and native Paul Kruger's demand for Imperialism. By the act of 1892 the native franchise was curtailed. Cecil Rhodes, who managed thousands of Kaffirs in the mines and was the originator of the compound system, disbelieved in the political and social equality of blacks and whites as thoroughly as any Boer. In 1886 the author of the most remarkable political, concord that ever existed in South Africa himself broke the charm and let loose again political rancor and racial jealousy by a sinister, corrupt, and criminal political intrigue as base and dishonest as was ever conceived by a desperate adventurer. He did not conceal the conspiracy alone. Members of the British Cabinet, especially Joseph Chamberlain, were involved in the guilt in a degree that has never been disclosed. Cecil Rhodes, however, was probably the prime mover, and certainly the organizer and director of the conspiracy, and he had to bear the odium, although the fiasco in which it ended was due to the precipitate action of his agents. After the discovery of gold in the Witwatersrand in 1886 and the growth of a mining population in Johannesburg almost as numerous as those in the Transvaal, Rhodes, with the concurrence of his financial partners and friends in Kimberley and London, all of whom were deeply interested with him in the gold-mines that could be worked in the diamond-mines and all other South African industries together, used money freely to work up a British imperialist agitation among the Uitlander population with the view of making it his instrument in changing the Boer republics into British colonies, so as to hasten the realization of a British South African federation. The Uitlanders had come, not from British lands alone, but from many countries, some of the most influential of them from the United States. The republicans among them were in a large majority, but all desired the full franchise and had common grievances against President Kruger's Government. The local jealousy felt at the Cape toward the Transvaal greatly increased when the republican Government had a local control over the main source of wealth in South Africa and built independent lines of railroads to the seaboards. This sentiment began to veer around, however, when the British Government undertook to dictate to the Transvaal about the electoral franchise, schools, and taxation. While the discontent of the Uitlanders was stimulated

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by organized agitation and the British annexationists among them were represented as including the whole population, the agents of Rhodes hatched a plot to overthrow the Government of President Kruger by a revolutionary uprising. Arms and ammunition bought with funds of the De Beers corporation were smuggled into the country. Rhodes planned a simultaneous invasion of the republic by his Mashonaland troopers, most of whom volunteered for the adventure or being assured by Dr. Jameson, Rhodes's representative and administrator in Matabeleland, that it was unofficially authorized by the British Government. When the appointed time for the revolution was at hand a hitch occurred in the negotiations still going on between the arch conspirator and the revolutionary committee, an American member of which, who had the widest influence in the Uitlander community, refusing to sanction the raising of the British flag, while Rhodes would not sanction the insurrection on any other conditions. Dr. Jameson, whose force was waiting impatiently on the border for the signal, led them into the Transvaal and rode into a Boer ambush near Pretoria, for President Kruger wasted no time in taking action. The Boers were met and routed at the Battle of Magersfontein, and the Boers were driven into the Transvaal. The Boers had gained a temporary victory, but they were unable to withstand the British forces. The British Government took control of the Transvaal and established a British protectorate. The British Government was able to maintain control of the area and to preserve the peace of the region. The Boers were forced to surrender and to accept British control.

Rickett, Heinrich, German politician, born in Putzig in 1833; died in Berlin, Nov. 3, 1902. He represented the town of Dannzig for thirty years in the Prussian Chamber and in the Reichstag. He was the leader of the group of free-traders that seceded from the National Liberal party in 1879 on account of Bismarck's adoption of a protectionist policy and his support of the British Union. In 1884 he was one of the members of the Freisinnige party of Eugen Richter. He was leader of the moderate section of the Radicals, and in 1884 he and his followers seceded from the advanced section to support Count Caprivi's army in the hope of bringing about a Liberal administration. His group, known as the Freisinnige Vereinigung, has since then supported the Government's efforts to strengthen the army and navy, to acquire colonies, and to play a greater part in the world's politics, but without altering its position in regard to aristocratic privileges.

Roberts-Austen, William Chandler, English metallurgical chemist, born in 1843; died Nov. 22, 1902. In 1865 he obtained the royal license to take the Queen's assay in the British Empire. He graduated at the Royal School of Mines in London, obtained employment in the mint, and in 1869 became assayer there. In 1882 he became the Queen's assay officer and in the crown he was raised to the chair of Metallurgy at the Royal School of Mines, which he held until his death. He published metallurgical memoirs, especially in connection with the alloying of copper and gold. He was elected a fellow of the Royal Society in 1875; was president of the Iron and Steel Institute in 1889; served on the British Executive Committee of the Paris Exhibition of 1889; and was vice-president of the International Mining and Metallurgical Congress in Paris, receiving the Cross of Chevalier of the Legion of Honor. In 1888 he was made a C. B., and in 1896 K. C. B. He was a D. C. L. of the University of Durham. As a teacher he is said to have been a universal favorite.

Royal, Joseph, Canadian journalist and statesman, born in Repentigny in 1837; died in Montreal, Aug. 23, 1902. He was educated in the Jesuit College of St. Mary's in Montreal and began newspaper work in 1851 on the Montreal Minerve, founded Le Nouveau Monde in the same year, and L'Ordre in 1859. In 1864 he was one of the founders of the Revue Canadienne, to which he contributed articles on political subjects.
settled in Manitoba in 1870 and started Le Métis, entering the same time upon the active practice of law, having been admitted to the bar in 1864. He defended Lépine and Naud, who were tried as murderers for having wounded Louis Riel’s provisional Government ordered the execution of Thomas Scott. He sat in the Manitoba Legislature from its creation in 1870 until he was elected to the House of Commons in 1873, and while in the Legislature he was speaker and afterward provincial Secretary, Attorney-General, and Minister of Public Works. He carried through the school law of 1871, the act abolishing the Legislative Council, and the act creating the University of Manitoba, and he secured more favorable financial arrangements with the Dominion. He was returned to the House of Commons until, in 1888, he was appointed Lieutenant-Governor of the Northwest Territories. After the expiration of his term in 1893 he became editor of La Minerve.

Boger, Clémence, French scientific writer, born in Brittany in 1830; died in Paris, Feb. 3, 1902. She intended in her youth to become a nun, afterward studied at the Sorbonne and the Conservatoire. In 1866 she instituted a course of logic for women, shared with Prudhomme a Government prize for an essay on the theory of taxation, and was the translator and defender in France of Darwin’s theories. She published a famous pamphlet on a national church for the republic, a work on Le Bien et la Loi Morale in 1861, and an original treatise on the atomistic theory of La Constitution du Monde in 1890, besides memoirs on anthropological and archeological subjects.

Bute, Mme. Marie Letizia de Studolumine Solms, Ratazzi de Wyse, commonly known as Mme. Ratazzi, daughter of Sir Thomas Wyse, an English ambassador to Athens, and Letitia Bonaparte, a niece of the first Napoleon, born in Waterford, Ireland, in 1853; died in Paris in February, 1902. Her first marriage was in 1848 to Frédéric de Solms, a wealthy Alsatian, who died in 1861, and in 1863 she married the Italian statesman and writer, Count de Bute. Four years afterward she married De Rute, a Spaniard. Exiled from Paris after the coup d’état in 1822, she established a journal, Les Méditations de l’Exilée, which enjoyed great popularity. She contributed to many journals, and with her talents, and her great beauty at one period of her career, she played a conspicuous part in literary and political circles during the second empire. The following is an incomplete list of her published books: Nice, Ancienne et Moderne (1854); La Dupinade (1859); Les Chants de l’Exilée (1859); Fleurs d’Italie: Poésies et Légendes (1859); Bontades (1860); La Rédemption d’une Femme (1862); Mademoiselle Million (1863); Les Mariages d’une Creole (1864); Le Pègre aux Mairs (1865); Les Rives de l’Arno, poems (1865); Les Soirées d’Aix les Bains, prose and verse (1865); La Forge (1865); La Mexicaine (1866); Bichonne (1867); Si j’étais Reine (1869); Louise de Keiner (1868); Le Rêve d’une Ambitieuse (1868); Nice la Belle (1870); Florence (1870); Cara Patria, verse (1873); L’Ombre de la Mort, verse (1874); Le Propriétaire de la Lune (1875); Le vol d’Oiseau (1880); Ratazzi and his Temps (edited) (1881); La Belle Juive (1882); L’Aventurière des Colonies, a drama (1883); and Enigme sans Cléf, a collection of tales (1894).

Sargeant, Lewis, English journalist, born in 1841; died in Bournemouth, England, Feb. 2, 1902. He was educated at Cambridge, and for six years preceding his death had been a member of the editorial staff of the London Daily Chronicle. He was an authority on educational subjects, and was a man of wide learning and exceptional breadth of view. Since 1875 he had been the honorary secretary of the Greek Committee in London, and for his services to Greece he was created knight of the Greek Order of the Redeemer. His published books include An Introduction to English Composition (1873); Elementary Mathematics (1873); New Greece (1878); England’s Policy (1881); William Pitt (1882); The Government Handbook (1886); John Wielch (1893); Greece in the Nineteenth Century (1897); The Franks from their Origin as a Confederacy to the Establishment of the Kingdom of France and the German Empire (1898); and The Captives of Julia, a novel (1899).

Scharf, Adalbert Voigtzsch, Bohemian chemist and astronomer, born in Neutzs in Südrungarn, Oct. 26, 1829; died in Prague, July 2, 1902. From 1856 to 1862 he studied at the University of Leipsic and Göttingen with Wöhler. He became Professor of Chemistry in the Bohemian Polytechnic in 1862, and in 1882 was appointed to the chair of Chemistry in the Bohemian University. His last chemical paper was published in 1872. After this time he devoted himself chiefly to astronomical investigations, which he carried out in his private observation-cabinet of the chair of Descriptive Astronomy in the Bohemian University from 1892 to 1896. He was an adept at grinding and polishing metallic and glass mirrors. He translated the works of Alexander Humboldt into Bohemian, and left a long series of astronomical manuscripts, which he prevented by failing health from publishing.

Schenk, Leopold, Hungarian embryologist, born in 1841; died in Schwenberg, Styria, Aug. 17, 1902. He was a distinguished Professor of Embryology when he published a work that created much popular displeasure in 1861. He introduced skepticism in the scientific world, in which he advanced a theory that the sex of children can be artificially predetermined by a regimen of food.

Scholl, Aurélie, French author, born in Bordeaux, July 13, 1833; died in Paris, April 16, 1902. He was the son of a notary, and after studying in the schools of Bordeaux he went to Paris to become a literary author. He became an incisive newspaper writer, writing in 1860 for the Corsair, and after it was suppressed in 1862 he was connected successively with the Paris, the Mousquetaire, L’Illustration, and the weekly Figaro, revived the Satan, and started La Silhouette, Le Nain Jaune, Le Club, Le Jockey, and Le Logron. From 1872 he was associate editor of L’Événement, and was chief editor for a season of both the Voltaire and L’Echo de Paris. He fought many sensational duels and made himself a conspicuous figure in the public eye by his marriage with the rich Alice Perkins, of London, and its sequel, and by other adventures. He published Lettres à mon Domestique in 1854; Les Espirs Malades in 1855; Dénie in 1857; La Foire aux Artistes in 1858; Claude de Borgne in 1859; Les Mauvais Instincts in 1860; Aventures Romantiques in 1862; Hélène Herrmann, Les Amours de Théâtre, and Scènes et Mensonges Parisiens in 1863; Le Portugal a vol d’Oiseau (1880); Ratazzi and his Temps (edited) (1881); La Belle Juive (1882); L’Aventurière des Colonies, a drama (1888); and Enigme sans Cléf, a collection of tales (1894).
Minutes in 1875; Le Procés de Jésus-Christ in 1877; Les Scandales du Jour in 1878; Fleurs d’Adolphe in 1880; Désirée and Mémoria du Trottot in 1882; Les Nuits Sanglantes and Fruits Défendus in 1886; Roman de Follette, L’Esprit du Boulevard, and Les Fables de La Fontaine in 1886; Paris en Caleçon in 1887; Paris aux Cent Coups in 1888; and L’Amour appris sans Maître in 1891. He also wrote Jaloux du Passé, a one-act comedy produced in 1861; Singuliers Effets de le Poudre, in collaboration with Théodore de Langeac, in 1863; La Question d’Amour, with Paul Bocage, in 1864; Les Chaines de Fleurs in 1868; L’Hôtel des Illusions, a vaudeville, in 1869; On Demande une Femme Honnête, with M. V. Koning, in 1877; Le Repentir and Le Nid des Autres, with M. A. Arois, in 1878.

Senussi, Sidi el Mahdi, sheik, Arab religious leader of Islam, born in Bengazi in 1832, died in Kanem in July, 1902. His father, Sidi Mohammed, was a deriwi of Algerian birth, a sheri, or descendant of the Prophet, who, after adventuring and traveling under a Muslim leader, went to Mecca, and then returned homeward through Egypt and Tripoli, settling in Cyrenaica near the border of his own district because he found it more profitable. He revived the pure doctrines of Islam among the Bedouins, and after some years migrated eastward to the small oasis of Jaghob. Senussi, left an orphan in infancy, was educated by his father's disciples and encouraged to believe in his high calling as a guide of Islam. For fifty years he remained on the oasis, living a life of ascetic piety and preaching his doctrine among the desert tribes whose camels transport goods from the coast and the Souahin states of Wadai and Kanem. His reputation for holiness spread wherever caravans went, and in all the oases of the Saharan lived members and missionaries of his sect. In the end he left Bengazi to take up a wandering life in the Sahara among the tribes who were susceptible to religious fervor and ready to adopt his stringent rules of simple living. He had no political ambition, was loyal to the Sultan of Turkey as caliph, abstained from all intrigue, and kept no armed force. For some years he lived in the oasis of Borku. The Mahdi of the Egyptian Souahin endeavored in vain to gain his support. When he left Borku he moved by slow degrees with his large and increasing body of followers westward through the desert, always raising the elevating and refining influence among the fierce Bedouins and half pagan Souahinese by his example and missionary teachings.

Biemeradski, Henryk, Russian painter, born in Kharkoff, 1844; died Aug. 22, 1902. He studied natural science at the University of Kharkoff, and afterward painting at the Art Academy at St. Petersburg; in 1871 went to Munich, where he imitated the spirit of Otto von Schadow's historical school; settled finally in Rome; obtained the medal in the Russian section of the Paris Exposition of 1878 with his large painting of the Torches of Nero; exhibited in Paris as Seller: Vase or Slave; Out of the Catacombs; The Sword-Dance; Phryne; The Temptation of St. Anthony; and designed frescoes for the Church of the Holy Saviour at Moscow, Russia. Roberta, German Roman Catholic prelate, born in Eupen in 1832; died in Cologne, May 24, 1902. He was educated at Bonn University and in the theological seminary at Munich. In 1855 he was appointed to the chair of Catholic Theology at Bonn, and in 1880 to that of Dogmatic Apologetics. He took part in pastoral work and Church affairs during his professorship. He was a leader of the Old Catholic movement until their severance from the Church. In 1891 he was consecrated Bishop of Paderborn. His patriotic attitude during the conflict between the Government and the Church was remembered when Archbishop Klemenz died, in 1899, and a successor in the see of Cologne had to be found who was acceptable alike to the Government and the Curia. The King of Prussia placed him on the list of candidates, and the Cologne chapter elected him, but he would not accept without the behest of the Pope, who accordingly issued a formal command. When Dr. Si- mor took the oath of allegiance to the Emperor on Feb. 9, 1900, he added a declaration that he would act as a loyal patriotic German bishop.

Simpson, Maxwell, English chemist, born in Beech Hill, County Armagh, Ireland, March 15, 1815; died Feb. 26, 1902. He was graduated at Trinity College, Dublin, and subsequently as a bachelor of medicine in 1847. He became lec- turer in chemistry, but tired of teaching, and went abroad to study chemistry with the masters of the science. In 1861 he worked under Kolb at Marbourg, and under Bunsen at Heidelberg. While in the latter's laboratory he published his first scientific memoir, On Two New Methods for the Determination of Nitrogen in Organic and Inorganic Compounds, and entered the laboratory of Wurtz. While here he made original investigations and published many papers. In 1861 Prof. Frankland communicated with him, and appointed him to succeed him in the Chair of Chemistry in Queen's College, Cork. He resigned this professorship in 1891. He was examiner for several institutions in London and elsewhere, was an honorary fellow of the King's and Queen's College of Physicians, rece- ceived the degrees of M. D. and LL. D. from the University of Dublin, the degree of D. Sc. from the Royal University of Ireland, was president of the chemical section of the British Association in 1878, and was vice-president of the Chemical Soci- ety from 1872 to 1874. The volumes of the Journal of the Chemical Society and the Proceedings of the Royal Society contain many of his memoirs.

Smith, George Vance, English Biblical scholar, born in Portarlington, Ireland, in 1816; died in March, 1902. He was educated for the Unitarian ministry at Manchester New College, and then situated in Plymouth. He took up Semitic philology there several years. He was minister of St. Saviour Gate Unitarian Chapel, at York, in 1858-75, and principal of the Caernarthen Presby- terian (Unitarian) College, Wales, in 1875-88. He became a member of the New Testament Re- vision Company in 1870, and served till the conclu- sion of the work. His invitation to this work excited the freest opposition in certain quarters, and in the opinion of some theologians the labors of the company were almost neutralized by the fact that a Unitarian had shared in them. His presence at Cambridge in 1882 provoked with the other revisers also gave rise to a display of theological bitterness. His published works include The Prophecies relating to Nineveh and the Assyriliens (1857); The Holy Scriptures of the Old Covenant in a New Translation (1859); Eternal Punishment (1863); The Bible and Popular Theology: A Restatement of Truths and Prin- ciples (1871); Holy Scriptures of the Old Testament and their Permanent Lessons (1874); The Holy Scriptures of the Old Covenant in a Revised Translation (joint author) (1874); The Prophets and their Inheritance; Texts, Translations of the Revised Testament (1881); Chapters
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on Job for Young Readers (1887); The Bible and its Theology, as Popularly Taught, a revised and enlarged edition of The Bible in Popular Theology (1892); and Some Modern Phases of the Doctrine of the Atonement (1894).

Wetherell, John, English typographer, born in Liverpool, April 27, 1840; died in London, July 9, 1902. He was perhaps the highest English authority on the history of typography, and was widely known as a writer and lecturer on the subject. At seventeen he edited a local magazine, and he was subsequently editor of the Liverpool Observer, edited by his father. He removed to London in 1860, and in 1866 became editor of the Printer's Register. In 1891 he assumed proprietorship of the Paper and Printing Trades Journal, but soon relinquished the business in order to devote himself to the literature of his favorite theme. His valuable work on Practical Printing reached a third edition in 1887. Other important works by him are Fine Printing; Principles and Progress of Printing Machinery (1889); Type-Composing Machines, and perfected so well by the instruction that at seventeen he exhibited his first canvas, A Water-Mill, at the Royal Academy. The Starks had moved to Windsor from Chelsea when the latter was eight years old, and while living at Windsor he acquired that love for the valley of the Thames that was afterward to make itself so apparent in many beautiful landscapes. Stark entered the Royal Academy Schools in 1849, and from the year preceding till 1877 exhibited at the Academy almost without a break. His subjects were nearly always landscapes with cattle, and although an animal painter he was essentially the latest exponent of the Norwich school of painting, depicting nature in rich but quiet tones. After 1886 he lived and worked at Redhill, in Surrey, and in 1892 he died in South Nutfield, Oct. 29, 1902. He studied painting under his father, John Stark, an artist of the Norwich school of colorists, who was frequently styled the English Rubens, and perfected so well by the instruction that at seventeen he exhibited his first canvas, A Water-Mill, at the Royal Academy. The Starks had moved to Windsor from Chelsea when the latter was eight years old, and while living at Windsor he acquired that love for the valley of the Thames that was afterward to make itself so apparent in many beautiful landscapes. Stark entered the Royal Academy Schools in 1849, and from the year preceding till 1877 exhibited at the Academy almost without a break. His subjects were nearly always landscapes with cattle, and although an animal painter he was essentially the latest exponent of the Norwich school of painting, depicting nature in rich but quiet tones. After 1886 he lived and worked at Redhill, in Surrey, and in 1892 he died in South Nutfield, Oct. 29, 1902.

Stark, Arthur James, English artist, born in London, Oct. 6, 1840; died in South Nutfield, Oct. 29, 1902. He studied painting under his father, John Stark, an artist of the Norwich school of colorists, who was frequently styled the English Rubens, and perfected so well by the instruction that at seventeen he exhibited his first canvas, A Water-Mill, at the Royal Academy. The Starks had moved to Windsor from Chelsea when the latter was eight years old, and while living at Windsor he acquired that love for the valley of the Thames that was afterward to make itself so apparent in many beautiful landscapes. Stark entered the Royal Academy Schools in 1849, and from the year preceding till 1877 exhibited at the Academy almost without a break. His subjects were nearly always landscapes with cattle, and although an animal painter he was essentially the latest exponent of the Norwich school of painting, depicting nature in rich but quiet tones. After 1886 he lived and worked at Redhill, in Surrey, and in 1892 he died in South Nutfield, Oct. 29, 1902.

Stephens, William Richard Wood, English clergyman, born in Gloucestershire, Oct. 5, 1839; died at Oxford, Oct. 22, 1892. He prepared for the Anglican ministry, and was ordained in 1864. He was curate of Staines, 1864-66, and of Purley, Berkshire, 1866-69; vicar of Mid-Lavant, Sussex, 1873-75; and rector of Woolbeding, Sussex, 1876-94. He was lecturer in the Chichester Theological College in 1872-75, became a prebend of Chichester cathedral in 1875, and was promoted to the deanery of Winchester in 1884. His published books comprise Saint Chrysostom: His Life and Times (1872); Memorials of the South Saxons and Catholic Church of Chichester (1876); Christianity and Islam (1877); The Burials Question (1877); The South Saxons Diocese: Selsey-Chichester (1880); Hildebrand: His Life and Times (1888); Life and Letters of Edward Augustus Freeman, his most important work (1895); The English Church from the Norman Conquest to the Accession of Edward I, 1066-1202 (1901).

Stevens, Robert Armitage, English civil servant, born in England, June 30, 1839; died Oct. 3, 1902. After being educated privately, he was sent to India in 1856 to fill an appointment in the secretariat of the Government of the East India Company. He served in various capacities for many years, becoming accountant-general for Bombay in January, 1884, and accountant-general for Madras in November, 1887. Retiring from the Indian service in 1886, he was appointed Governor of St. Helena for six months, and was appointed Governor in 1897, which office he filled at the time of his death. Gov. Stevenson was the ablest of the Seoni, and he was born in the Satpuras: A Tale of Indian Adventure (1877); The Afghan Knife, a novel (1879); A Natural History of the Mammalia of British India and Ceylon (1884); Denizens of the Jungle (1887); Turkey and Ceylon; An Account of the District of Seoni; and Saint Helena (1902).

Stokes, John, English military engineer, born in Cobham, Kent, June 17, 1825; died in Ewell, Nov. 17, 1902. He was the son of a clergyman, was educated at Woolwich, entered the royal engineers in 1843, served in the two Kaffir wars with distinction, organizing the Hottentot levies in 1851, was chief engineer of the Turkish troops in the Crimean War, fortified Kertch, was British commissioner at the disbandment of the Turkish contingent after the Peace of Paris, was appointed British commissioner for the Danube in 1856 under the treaty of Paris making it an international stream, was nominated vice-consul at the Danube delta in 1861, signed the convention for the regulation at the mouths of the Danube in 1866, and the Danube loan convention in 1868, and remained until the work of deepening the Sulina mouth was completed at the end of 1871. For the next two years he commanded the engineers in South Wales, was British commissioner on the tonnage question in 1873 and was employed on other affairs connected with the Suez Canal, concluded a convention with M. de Lesseps in 1875, and has been the representative of the British Government on the Canal Board from the beginning. He retired from the army with the rank of lieutenant-general in 1887.

Sutherland, Alexander, Australian lecturer, born in Glasgow, Scotland, in 1852; died Aug. 9, 1902. After emigrating with his parents to New South Wales in 1867, he completed his education at Melbourne University. He was tutor at Morison's Scotch College, Melbourne, in 1871-73, and then founded Carlton College at Geelong, of which he was principal until 1892, when he withdrew and devoted himself to literature, although he continued to lecture. Near the end of his life he was appointed Dec. 22, 1899, of the University. With his brother George he published in 1879 a History of Australia and New Zealand, which proved very popular. Subsequent works of his are Thirty Short Poems (1888); The Development of Australian Literature (1898); and Origin and Growth of the Moral Instinct, his most important work (1898).

Targe, Allain, French statesman, born in 1832; died July 17, 1902. His father and grandfather were judges, and he was a deputy of the public prosecutor under Napoleon III until he resigned to join the republicans. He was unsuccessful as a candidate in Paris for the Corps Législatif in 1869. After the fall of the empire he was prefect at Angers and Bordeaux. He failed twice as a candidate for the Chamber, and then succeeded, in 1876, in getting elected for Paris. He opposed the Opportunists, and in 1885 became Minister of the Interior in the Brisson Cabinet. The successes of the Reactionaries won the election, and the Chamber again selected him. He served in various capacities for many years, becoming accountant-general for Bombay in January, 1884, and accountant-general for Madras in November, 1887. Retiring from the Indian service in 1886, he was appointed Governor of St. Helena for six months, and was appointed Governor in 1897, which office he filled at the time of his death. Gov. Stevenson was the ablest of the Seoni, and he was born in the Satpuras: A Tale of Indian Adventure (1877); The Afghan Knife, a novel (1879); A Natural History of the Mammalia of British India and Ceylon (1884); Denizens of the Jungle (1887); Turkey and Ceylon; An Account of the District of Seoni; and Saint Helena (1902).
OBITUARIES, FOREIGN. (TEMPLE.)

Temple, Frederick, Primate of all England and Metropolitan, born in Santa Maura, in the Ionian Islands, Nov. 30, 1821; died in London, Dec. 23, 1902. He was the son of an English army officer, who died while his son was still quite young, and the boy was brought up by his mother, who was comparatively poor. He was sent to the famous Blundell school at Tiverton, and thence to Oxford, graduating in 1842 with a "double first-class," and thus securing a fellowship and tutorship in his college. He was ordained to the priesthood of the English Church in 1846, of Kneller Hall, near Twickenham, from 1848 to 1858. After serving as school inspector for several years, he became head master of Rugby School in 1858, and under him the school regained much of the prestige it had held during Dr. Arnold's headship. In 1860 the famous volume of Essays and Reviews appeared, exciting a vast amount of acid controversy on account of the supposed unorthodox opinions of various authors. Dr. Temple's own contribution to the volume, The Education of the World, was certainly not open to the objections urged against the others, but it encountered quite as much adverse criticism as they, and caused many persons to regard him as a heretic. When he was nominated to the bishopric of Exeter, in 1899, the most virulent objection to the appointment was developed among the clergy on account of his participation in the volume just named, but it was ineffectual, and he was consecrated in due course. In 1886 he was translated from Exeter to London, and again encountered opposition on account of the unforgotten contribution to the unorthodox Essays and Reviews. On the death of Archbishop Benson, in 1896, Dr. Temple was nominated to fill the vacancy, and on Dec. 29 of that year the nomination was confirmed in St. Paul's Cathedral. He was consecrated an archbishop in January, his death occurring at the completion of his sixth year as primate. But few objects appeared on the occasion of his elevation to the primacy; and, although he was a Radical in politics, his promotion came to him at the hands of a Tory Prime Minister, the choice having been dictated, in some degree, at least, by Queen Victoria. As Archbishop of Canterbury he stood for sincere belief in the essentials of Christianity combined with extreme comprehensiveness in the Anglican fold, and no man in the kingdom commanded more general respect than he. He was brusque in manner, and a rigid disciplinarian both as head master and bishop; but his perfect sense of justice and his abundant common sense commanded a far-reaching influence. He was a total abstainer, both from temperament and conviction, and was a strong ally of the temperance cause; but he was never fanatical on the subject. He was always able to discern the limits of practical attainment in the direction of reform, and on the stirring topic of public education his grasp of the situation was equally apparent. He was a plain rather than a popular preacher, but, while he was easily comprehended by the uneducated, his scholarship remained unobscured. The absence of early culture and the privations of his home in Wiltshire left their mark upon him, as shown in certain provincialisms of speech and accent, and perhaps also in the excessive brusqueness that led some witty clergyman to remark, "There's no polished corners to our Temple." With a wonderful capacity for hard work, he was a stern economist of time, never wasting it upon mere superfluities. On one occasion when he was Bishop of London, the visiting Emperor of Germany sent to request the prelate to call upon him. As compliance with the imperial demand involved the loss of practically an entire working day, he told the Emperor's messenger that he should be unable to do as had been requested. "But, my lord," exclaimed the horror-stricken man, "neither I nor anybody else can convey such an answer to the Emperor of Germany." "I can not help that," said the bishop, "you must convey it now," and the desired call was not made. Although the term of Dr. Temple's primacy was short, it was eventful. Many important questions, both national and ecclesiastical, came before him for consideration, and in ritual and other controversies he held an even rein. He took part in the Queen's diamond jubilee in 1897, and in the celebration of the landing of Augustus at Canterbury, and to him fell the duty of crowning the present King of England, Edward VII. He married in 1875, and his wife, a granddaughter of the late Earl of Carlisle, and herself a tireless worker and organizer, survives him. His only published books are three volumes of sermons delivered in Rugby Chapel and his Hampden Lectures, delivered in 1884, on The Relations between Religion and Science, a work held in the highest esteem by competent critics. Despite his rugged appearance, his years of tireless activity had told upon him severely, and in his last months he was attacked by a species of ataxia, which manifested itself in August last at the moment of coronation. While about to place the crown upon the head of the King, he tottered and would have fallen but for the King's sustaining arm. An equally pathetic scene occurred in the House of Lords on Dec. 2, when at the close of a vigorous speech in support of the public education bill, the aged primate sank upon his seat in collapse and had to be assisted from the chamber. On reaching Lambeth Palace he was conveyed to a sedan chair, which he was weak to leave afterward. On the following Saturday his funeral took place in the cathedral at Canterbury.

Temple, Sir Richard, English civil servant, born in Kempsey, near Worcester, England, in 1826; died in Hampstead, March 15, 1902. He was educated at Rugby and Haileybury College, and entered the East Indian civil service in 1848. After holding successively several important places of trust, he became Finance Minister of India in 1868, Governor-General of Bengal in 1874, and was Lieutenant-Governor of Bombay 1879-80. Returning to England, he served on the London School Board in 1888-94, and sat in the House of Commons from 1885 to 1885. He traveled extensively on the Continent, and was a successful artist. His published works include India in 1880 (1880); Men and Events of my Time in India (1882); Oriental Experiences (1883); Cosmopolitan Essays (1883); Life of Temple (1888); Life in Parliament (1893); The Story of my Life (1896); A Bird's-Eye View of Picturesque India (1898); and The House of Commons (1899).
Thompson, D'Arcy Wentworth, Irish scholar, born in 1829; died in Galway, Ireland, Jan. 26, 1902. For more than forty years he was Professor of Greek in Queen's College, Galway. He was the author of A Latin Grammar for Elementary Classes (1857); Ancient Leaves (1862); History and Philosophy of Story-Telling (1863); On History and Progress (1883); Day Dreams of a Philosopher (1864); Nursery Nonsense, or Rhymes without Reason (1884); Fun and Earnest, or Rhymes with Reason (1865); The Wit and Wisdom of the Athenian Drama (1867); and Wayside Thoughts (1868).

Tiels, Cornelis Petrus, a Dutch theologian, born in Leyden, Holland, Dec. 16, 1830; died there, Jan. 14, 1902. He was educated for the ministry at the Remonstrant Seminary in Amsterdam, and after being pastor of the Remonstrant Church at Moordrecht from 1853 to 1856 became pastor of a similar church in Rotterdam. Here he soon attracted attention as a preacher and scholar, and when the Remonstrant Seminary was transferred to Leyden in 1873 he was appointed a professor. In 1877 he accepted the chair of History of Religion, in the University of Leyden, while retaining his post at the seminary. He published: History of the Religions of Zarathustra (1864); Comparative History of the Religions of Egypt and Mesopotamia (1869–72), which was quickly translated into French, German, and English; Outlines of the History of Religion (1876); Elements of the Science of Religion (1897–99); and History of Religions (1901).

Tisza, Koloman, Hungarian statesman, born in Grozovarad in Transylvania, Dec. 10, 1866, and died in Vienna, March 23, 1902. He belonged to the noble Protestant family of Boroșjeni in the county of Bihar, studied law, and obtained a post in the Ministry of Education in 1848, which he resigned as soon as the revolutionary storm burst, but did not identify himself with the revolution. He went abroad to study, returned to his father's place in Gezitz, his part of the inheritance, and first took part in public affairs as the champion of Protestant autonomy in opposition to Count Leo Thun's patent of Sept. 1, 1859, for the regulation of the Protestant communions. This interference of the Austrian Government in a branch of Hungarian affairs that the Hungarians had always settled among themselves gave a fresh impetus to the constitutional idea and brought Koloman Tisza to the front as its advocate. When the prefect called to examine the correspondence that Tisza was holding with the prescribed agitators and asked him about its origin, Tisza showed him the official documents he had handled to the imperial patent as the only one he possessed. When in October, 1860, absolute government in the Austrian Empire was re-established, Tisza, despite his constitutional and representative rights in the various historical states existing, the Magyar Liberals were inclined to accept for Hungary the concessions offered, as they exceeded the constitutional and personal rights that practical politicians then hoped to obtain for Hungary. Tisza induced them to reject the whole scheme of provincial self-government and to stand firmly for the historical rights of Hungary as an independent state. Henceforth he was the acknowledged leader of the movement for the restoration of the Hungarian Constitution. When Parliament was reconvened in 1861, he was elected to the House of Deputies from the town of Debreczín and succeeded Count Ladislaus Teleky in the leadership of the Left Center, the constitutional party which opposed Francis Deák's conciliatory proposal to petition the Austrian Emperor for the restoration of the ancient liberties, holding it unsuitable to address the monarch until he should become the crowned constitutional King of Hungary. When Deák's petition was summarily rejected by the Vienna Government, its author drew up a fresh address which presented the Hungarian and the old ably to the idea that Tisza accepted it as an adequate expression of the Magyar aspirations. This memorial voicing the unanimous opinion of the nation was an
served only by the dissolution of the Hungarian Parliament with the threat of military force in case of resistance. During the despotic régime that followed Tisza expounded the constitutional view in articles contributed to a political journal started by his friend Moritz Jokai, in which he unfolded a Liberal program for Hungary, including free trade with other nations and the re- moval of tariffs from internal industry and commerce. When Parliament was again convoked toward the close of 1865 Koloman was elected again as member for Debreczin, and with M. K. Ghyczy he led the group that in 1891 would speak to Austria only through a parliamentary resolution. This minority party supported Deck as well as his own more numerous followers, and Tisza took a prominent part in the negotiations for an Ausgleich that were interrupted by the war of 1866 and were quickly completed when it was over. When constitutional government was at last established with Count Julius Andrassy at the head of the ministry Deck's followers became the Government majority and Tisza's the regular Opposition, which supported the Cabinet, however, in its vigorous repulse of Szellieke and agrarian agitation. Tisza's political influence was not dependent on the strength of his party, which waxed in 1869 and waned again in 1872. He declined all the several central offices that were opened in the Cabinet. When the Government fell into discredit in 1874 by reason of administrative mismanagement Tisza was invited to form a Cabinet, but declined still the country was ready to adopt the program of the Opposition, which Ghyczy and his immediate following had left. When the Government made concessions to the non-Magyar nationalities Tisza approved, but when the Nationalist demands still grew he was the first to call a halt and to recall public opinion to sentiments of Hungarian patriotism and national union. In 1876 the Government majority was split up, and a large section was inclined to accept the plans of financial and internal policy put forward by Tisza. The ministry therefore resigned, and the Wenczeck Cabinet was formed, with Tisza in the Ministry of the Interior as the controlling mind of the combined Deck and Tisza parties. Eight months later Baron Bela Wenczech returned to the Cabinet, but 1875, became Prime Minister and remained at the head of the Government till March 12, 1880, at first as Minister of the Interior and in later years as Minister of Finance, placed the discussion of finances on a sound basis, reestablished the public credit, renewed the Ausgleich twice to the advantage of Hungary, and developed a railroad system so complete that only small additions have since been required. The strength and growth of Hungary has been largely due to his undisputed control of internal and financial affairs for many years, while foreign affairs were left to Count Julius Andrassy. After his resignation of the premiership he was still regarded for some time as the general directing the party policy and as chairman of the most important committee of the Chamber and the delegation he continued to shape legislation. He was elected to Parliament four times from Grosswardein, and was grievcd at his defeat in 1901 by a member of the Kosuth party, after which he was returned from a Transylvanian town. From the time of his entrance into political life he conducted the temporal affairs of the Catholic church, including the protection of Protestant rights and as such the object of the persistent enmity of the Clericals.

Tucker, Henry William, English clergyman, born in Devonshire, England, in 1830; died in Florence, Italy, Jan. 3, 1902. He was educated at Oxford, and after his ordination to the Anglican ministry in 1855 was successively curate at Chantry, Somerset, 1855-56; West Buckland, Devonshire, 1856-60; and Devoran, Cornwall, 1860-65. He became an assistant secretary of the Society for the Propagation of the Gospel in Foreign Parts in 1865, and subsequently chief secretary. This post he held until his retirement in July, 1901. He was prebendary of St. Paul's Cathedral from 1881. He published Clerical Recreations (1864); Under His Banner, a popular missionary work (1872); and The English Church in Other Lands (1886).

Tyler, Thomas, English scholar, born about 1825; died in London Feb. 27, 1902. He received his education at the University of London. He was a contributor to periodicals, and published the following works: Jehovah, the Redeemer God; The Scriptural Interpretation of the Divine Name Jehovah; Some New Evidence as to the Date of Ecclesiastes (1872); Ecclesiastes: A Contribution to its Interpretation (1874); and The Philosophy of Hamlet (1874).

Vaughan, William, English Roman Catholic prelate, born in London, Feb. 4, 1814; died in Newton Abbot, Devonshire, Oct. 25, 1902. He was educated for the Roman priesthood at Stonyhurst College, Lancashire; Saint Acheul, France; and Oscott College, and was ordained priest in 1838. In 1843 he was appointed president of Saint Paul's College, Prior Park, Bath, which office he filled till his consecration Bishop of Norwich in September, 1853. Bishop Vaughan had two brothers in the priesthood, one of whom died in 1883 as Archbishop of Sydney.

Vibert, Georges, French painter, born in 1830; died in Paris, July 28, 1902. He produced many spirited aquarelles and small canvases rich in color that were prized in France and the United States. The Courant sous l'Armes; Désespoir de Polichinelle; Coquelin en Mascarelle; and L'Antichambre de Monseigneur are some of the best known. He earned the cross of the Legion of Honor by bravery in the defense of Malmaison during the war of 1870 and was the author of a successful comedietta.

Virchow, Rudolf, German scientist, born in Schlieben, a small village in the Province of Brandenburg, Oct. 13, 1821; died in Berlin, Sept. 5, 1902. His parents were middle-class people, probably of Jewish descent. He attended the public school in his native town, and afterwards entered the gymnasium of Cöslin. In 1839 he became a pupil at the Friedrich-Wilhelm Institute, a training-school for army medical officers, and among his fellow-students here was Helmholtz. He took his medical degree in 1843. In 1846 he succeeded Froreip at the Charité Hospital. About this time he founded, in collaboration with Reinhardt, the famous Archiv. In 1846, owing to the uncompromising way in which he criticized the authorities as the result of his investigation of an epidemic, he was forced to resign his place at the Charité. He was immediately called to the chair of Pathology at Würzburg, and accepted. As a result of his work here the famous Cellulare Pathology was published in 1858. In 1866 the faculty of the University of Berlin petitioned for his recall, and in spite of bitter opposition he was finally recalled and remained in his old university for the rest of his life. Besides occupying the chair of Pathology in the university, he was the chairman of the pathological and anatomical department of the museum in Berlin, and from 1881 was made professor of anatomy, of which chair he was president, and a member of the Royal Academy of Science. He was active in the sanitary and scientific life of Berlin, and was one of the most important members of the Royal Academy of Science, and in 1880 was elected a member of the Royal Society, where he died.
Florence, Italy, Jan. 1615.

Haberdashers were in the ministry of the Chantry, Somerset, 1615.

The Society for the Propagation of the Faith, 1814.

The Foreign Parts of the World.

Bordeaux, 1762.

Lancashire, 1272.

Bede, 673.

Locarno, 1945.

London, 1166.

Eisenstadt, 1815.

Eichstätt, 1815.

Tyler, Thomas, 1635.

Newtown Abbot, Devon, Oct. 23, 1802.

Newton Abbot, Devon, Oct. 23, 1802.

Browne, a Roman Catholic, was born in Ireland, 1834; died 1881.

1881.

His education at the University of Oxford was a contribution to the following works: see and the Holy God: The Statistical Information on the Date of the Decretal Annals (1874); and 18 Philosophy of Hume and 1874.

Vaughan, William, 1830; died in Paris, July 28, 1882. He professed the arts and was educated for the Roman priesthood at Stonyhurst College, Lancashire; Saint Asaph, France, and Oxford College, London; and was ordained priest in 1858. In 1848 he was appointed president of St. Paul's College, Peter Park, Bath, which office he held till his consecration as Bishop of Plano, in September, 1874. Bishop Vaughan had ten brothers in the priesthood, one of whom died 1881 as Archbishop of Sydney.

Vibert, Georges, French painter, born 1830; died in Paris, July 28, 1882. He produced many spirited aquellutre and small canvases in color that were prized in France and the United States. The Convent sous l'Armes; 18 por de Policeville; Comedien en Mascarille; L'Antichambre de Moleon are among his best known. He earned the cross of the 18 Honor by bravery in the defense of Malin during the war of 1860 and was the author of a successful comedy.

Virchow, Rudolf, German scientist, 1821; died in Berlin, Sept. 5, 1902. His parents were middle-class people of Jewish descent. He attended the public schools in his native town and then entered the gymnasium of Cöbelin. In 1839 he became a pupil at the Friedrich Wilhelm Institute, a training school for army medical officers, and among his students here was Helmschmid. He took his degree in medicine in 1843. In 1848 he succeeded Ploetz as the Charité Hospital. About this time he was, in collaboration with Reinhard, the Archiv. In 1848, owing to the uncooperative way in which he criticized the authorities' result of his investigation, he was forced to resign his place at the Charité.

Voss, 1850; died in Berlin, Sept. 5, 1902. As a result of his being in the monastery, Universal底盘 was as a result of his being in the monastery, Universal底盘 was at the University at the age of 19.

Würzburg, 1850; died in Berlin, Sept. 5, 1902. As a result of his being in the monastery, Universal底盘 was as a result of his being in the monastery, Universal底盘 was at the University at the age of 19.

Zwickau, 1850; died in Berlin, Sept. 5, 1902. As a result of his being in the monastery, Universal底盘 was as a result of his being in the monastery, Universal底盘 was at the University at the age of 19.

Bergheim, 1850; died in Berlin, Sept. 5, 1902. As a result of his being in the monastery, Universal底盘 was as a result of his being in the monastery, Universal底盘 was at the University at the age of 19.
he was a leader of the Radical party. In 1880 he became a member of the imperial Reichstag. Owing largely to his work in introducing a system of drainage and sewage farms, Berlin is now one of the most healthful cities in Europe. He attracted students to his laboratory and lectures from all parts of the world. As an illustration of his original methods, at his anatomical and pathological demonstrations the sections were placed under microscopes, which were sent round through the seats on a small trolley railroad, and could thus be closely examined by each student without any interference with the lecture. An important innovation made by him was in autopsical work, which had previously been usually limited to an examination of the diseased part or organ. He systematically examined the whole organism, and thus showed how wide-spread may be the effects of a local disease center. Perhaps his most famous scientific dictum was the now well-known *Omnis cellula e cellula*. He was essentially a pathological anatomist and histologist. In 1874 he became a member of the Royal Academy of Science of Berlin. He was a commander of the Iron Cross in the First Order of the French Academy of Sciences, and a foreign member of the British Royal Society. Physically he was short and spare—in later years with gray hair and piercing gray, spectacled eyes. His voice was rather thin and weak; but, despite this, his lectures were always well attended, his earnest manner and his logical, incisive reasoning more than compensated for the lack of delivery of oratory. "The first time I saw Vichow," says a writer in the London Times, "was at the great medical congress held in London in 1851. At the opening meeting the Prince of Wales and the Crown Prince of Germany were present. Sir James Paget was in the chair, supported by Sir William Jenner, and the front rows of seats on the platform were filled by men of the greatest eminence—Pasteur, Charcot, Huxley, Gul, Lister, and others. The Crown Prince came in rather late, and as he stepped across the platform to his seat by the Prince, he fell on his knees and laid his hand on the arm of the Prince. 'I want to shake hands warmly with a little gray man sitting in the front row.' It was Vichow, who, I think, truly said to have been prima inter alios facta. He was then at the zenith of his career, and we were all conscious of the fact when he entered himself, and was received with a great outburst of applause, he reversed the familiar story of the senior wrangler who came forward with the best answer to a question, and beat the hands of the examiners. It never occurred to Vichow that they were applauding him, and he looked about for the Prince of Wales. He was always the same, absolutely simple and devoid of self-consciously. Last year, on his eightieth birthday, he received congratulatory addresses from all parts of the world at a scientific birthday party held at the Pathological Museum in Berlin. In behalf of the scientific bodies of England, Lord Lister said on that occasion: "All these bodies join in the recognition of your gigantic intellectual powers, in gratitude for the great benefits which you have conferred on humanity, and in admiration of your personal character, your absolute uprightness, the courage which has enabled you always to advocate what you believed to be the cause of truth, liberty, and justice, and the genial nature which has won for you the love of all who know you. Prof. Vichow's death was primarily a fall of the electric tram-car in the Leipzig Strasse, Berlin. He fell heavily, and fractured the femur at the hip. It was characteristic of him that he took a great interest in the pathology of his own case, quite apart from its bearing on his recovery. He declared, it is said, that, owing to his age, no osseous union would take place between the broken ends of the bone, and was actually pleased when the subsequent x-ray views showed that his prophecy was true. Vichow was once challenged by Bismarck because of the defeat of the Government on a navy vote, and he had the courage to decline the honor of the post offered by the famous Prime Minister. On receiving news of Vichow's death, Dr. Guido Bacecelli, the Italian Minister of Agriculture, sent the following appreciative message to Berlin: "Wherever, the whole world over, science and freedom, integrity and character, are held dear, the highest honor will be paid to the memory of Rudolf Vichow."

Wals, William Packerham, Anglican bishop, born in Mote Park, County Roscommon, Ireland, May 4, 1820; died July 30, 1902. He was educated at Trinity College, Dublin, ordained priest in 1844, appointed curate of various churches, and in 1872 canon of Christ Church, Dublin. He became Dean of Cashel in 1873 and was elected Bishop of Ossory, Ferns, and Leighlin in 1878. He was the son of the Rev. Charles Stewart Parnell. He resigned his see, owing to old age, in 1897. Among his many published works are The Moabitic Stone (1874); The Forty Days of the Bible (1874); The Angel of the Lord (1876); Ancient Monuments and Holy Writ (1878); The Decalogue of Charity (1882); Echoes of Bible History (1888); and Voices of the Psalms (1890).

Wernery, Henri, French-Swiss educator, born in 1869; died in October, 1902. He studied theology with a view to entering the Protestant ministry, but the breadth of his religious views interfered with his conscientious acceptance of a pastorate, and after teaching French in Constantine and at the Protestant Gymnasium in Paris he was called to the chair of French Language and Literature in the Academy of Neuchâtel in 1889. A year later he was invited by the State Council of the Canton of Vaud to take the chair of French Literature in the Institute, a position of influence in poems and essays on the Litté- rature Romande, appearing in various periodicals, was felt far beyond the bounds of the university. His latest writing is a history of the coming centenary of Canton Vaud in 1903.

Wigmer, John Thomas, English Baptist clergyman, died in London, Oct. 22, 1902, in his ninety-first year. He was one of the best known of the Baptist ministers in his denomination, twice filling the chair of the Baptist Union of Great Britain and Ireland. He prepared for the ministry at Stepney College, and began pastoral work in 1839; but as he had been engaged in preaching several years prior to that date, his ministry in reality extended over a period of seventy-two years, his longest pastorate having been at Lynn Regis. He also founded the Baptist church at Brockley, and was its pastor for a quarter-century. He was the author of several hymns, and edited the volume of Psalms and Hymns so widely used by English Baptists.

Wild, H. von, Swiss meteorologist, born in Uster, Dec. 17, 1833; died in Zurich, Sept. 5, 1902. He was director of the Central Meteorological Station at Bern in 1863-75, director of the Russian meteorological service in 1898-95, and president of the International Meteorological Committee in 1882-92. He was the inventor of a wind-vane much used, and in 1902, from an electric tram-car in the Leipzig Strasse, Berlin. He fell heavily, and fractured the femur at the hip. It was characteristic of him that he took a great interest in the pathology of his own case,
Wiltsire, Thomas, English geologist, born about 1828; died in Blackheath, Kent, Oct. 29, 1902. He was educated at Cambridge, and after preparing for the Anglican ministry was ordained priest in 1852. He was lecturer on geology at King's College, London, in 1872-'91; assistant professor there, 1891-'91; and Professor of Geology and Mineralogy from 1891 till his retirement in 1895. Prof. Wiltsire was the author of The Red Chalk of England (1859); The Ancient Flint Implements of Yorkshire (1862); The Chief Groups of the Cephalopoda (1867); The Red Chalk of Hunstanton (1899); and History of Coal (1878).

Zola, Émile, French novelist, born in Paris, April 2, 1840; died there, Sept. 29, 1902. His father was an Italian civil engineer, who drifted into France and constructed a canal at Aix. He married in Paris Émilie Aubert, and after the birth of their son returned to Provence. He died in 1847, leaving his family in straitened circumstances. Through the aid of his maternal grandfather, Émile Zola was sent to school and bouilting a little in 1857 he followed his mother to Paris and obtained a scholarship at the Lycée Saint-Louis, but failed to get his degree. He already showed literary tastes and had written a comedy called Enfôcè le Pion. He began life as an employee of the Custom-House at the wharves on the Seine, on a salary so meager that he was barely able to support his mother and himself in two small rooms. Through a change of administration he lost his place, and his mother returned to live with friends in Provence. Zola removed to a garret and subsisted on chance employment through three years of the direst poverty. About the end of 1861 he obtained work as a packer of books in the publishing house of Hachette & Co., at a salary of $20 a month. He then devoted all his leisure to writing verses, tales, and romances. This came to the knowledge of M. Hachette, who transferred him to the publishing department and raised his salary to $40. In 1864 Zola published his first book, the Contes à Ninon. He also wrote articles for the Petit Journal and the Vie Parisienne. In January, 1866, he left Hachette's to devote himself entirely to literary work, and the next month became an editor on the Événement under Villemessant. His sympathy for realism in painting and literature began to attract attention. He knew the sufferings of the poor, and determined to describe their life as it was. Thérèse Raquin, The Mysteries of Marseilles, and Madeleine Férat rapidly flowed from his pen. The last-named novel dealt with the question of homicide, and soon afterward he conceived the plan of making this subject the basis for a series dealing with successive generations of a family during the second empire. This was the famous Rougon-Macquart series. In 1869 he began to write the first volume, La Fortune des Rougon, which the Siècle began to print as a daily feuilleton. On May 30, 1870, Zola married Mlle. Alexandrine Gabrielle Meier, and two months later the Franco-German War interrupted his work. During its progress he narrowly escaped being buried in a Government office, having been nominated subprefect of Castelnaudran, but Gambetta did not confirm his appointment. After the war Zola returned to Paris and took an apartment in Batignolles. The family was in great poverty, and he worked hard night and day, writing for the papers and acting as parliamentary reporter for the Cloche. He had arranged with Lacroix for the publication of the Rougon-Macquart series, but the war prevented this. Zola, therefore, on the recommendation of Théophile Gautier, addressed himself to Charpentier, offering to sell one novel yearly, of which the publisher was to have exclusive right of sale and reproduction for a period of ten years, in consideration of a payment of $100 a month. Charpentier accepted, and then Zola began his great work with the tenacity of purpose and regularity which ever afterward characterized him, writing La Fortune des Rougon, La Curée, Le Ventre de Paris, La Conquéte de Plas- sans, La Faute de l'Abbé Mouret, and Son Excellence Eugène Rougon, none of which had a very large sale. But in 1877 appeared L'Assommoir, which brought the author fame and fortune. Charpentier voluntarily canceled his contract with Zola and made him a present of $4,000. With $1,800 Zola bought a house near Paris, and also moved to a better apartment in the Rue Saint-Georges. These novels were far from occupying his entire time. He dramatized Thérèse Raquin; wrote two逯ndes villages that did not succeed. It was only when he associated with himself a practical playwright, M. Busnach, that he was able to produce a successful play by dramatizing L'Assommoir, which was brought out at the Ambigu in 1878. He expanded his naturalistic theories in the Messager d'Europe, of St. Petersburg, and to defend realism on the stage became dramatic critic of the Bien Public and afterward of the Voltaire. He carried his theories into politics, publishing in 1879 a manifesto denouncing opportunism. In 1880 he went to the Figaro, where his articles were for many years a well-known feature. He became head of a sort of school, and attracted to himself young authors such as Guy de Maupassant, Paul Alexis, Henry Céard, J. Dramatizing L'Assommoir was brought out at the Ambigu in 1878. He expanded his naturalistic theories in the Messager d'Europe, of St. Petersb.
of them. In 1878 he affected to despire the dec-
aration of the Legion of Honor, but ten years later accepted it. In 1891 he sought to become a
member of the Société des Gens de Lettres, and was elected by acclamation and chosen its pres-
dent, which office he held until 1895. He had early shown opposition to the French Academy,
but in 1888 began to seek admission, and he pre-

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infallibility), no longer possible; that religious Catholicity, in distinction from the political ultramontanism of the Roman Catholic Church, is organized in the Catholic churches of the Old Catholic Church in Holland, Switzerland, Austria, and Germany; and declaring, contrary to the movement currently designated "neoform-Katholizismus", and represented by Krause, Schell, Ehrhard, Wahrmund, and others, in favor of a return of the Old Catholics to papal obedience on the ground that the Old Catholics, if inside of the Roman Church, would hasten the reform toward which it was supposed to be beginning to stir—that separation from Rome is necessary in order to make an effective protest against ultramontanism. A resolution introduced by Prof. von Schulte, president of the congress, declared that "it is the duty of every man who, according to his conscience, is opposed to the fundamental principles of ultramontanism openly to recognize the bidding of his conscience and act according to it, because only so can the might of ultramontanism be broken and come to be held an unholy thing both by the state and society"; and appealed to liberal Catholics who remain under the papal banner, non-Catholic liberals, and conservative Protestants who compromise with the papacy for reasons, to recognize their grave responsibility for the power that ultramontanism has come to wield in Germany. A letter was read from Bishop Herzog, of Switzerland, who was kept from the congress by illness.

The Old Catholics had in 1900 67 clergy and 13,079 communicants in Germany, between 30 and 40 parishes in Switzerland, 24 parishes and 16,250 members in Austria, and 21 parishes in Holland; they have a few churches in Italy, and are represented in Paris, France. Their growth in Austria has been rapid since 1890, having been aided by the withdrawal of considerable numbers of people from the Roman Catholic Church, under the influence of what is called the "Los von Rom," or away from Rome movement, the origin of which has been traced to the publication in 1898, by the Old Catholic priest, Anton Nittel, of Warnsdorf, of a tract entitled Cut Loose from the Pope and from Rome, and to meetings called by him, and attended by about 27 persons, who had joined in this revolt up to 1902, it was estimated that about one-third had joined the Old Catholic Church, and two-thirds the Lutheran and Reformed churches. The Old Catholic churches proper in the United States, the Independent Polish Catholic churches under Bishop Kozlowski, having 33 ministers, 43 churches, and 42,550 members, are recognized by the Old Catholic churches of Europe. The Polish churches have also sought intercommunion with the Protestant Episcopal Church.

ONTARIO, a province of the Dominion of Canada; area, 222,000 square miles; population in 1901, 2,182,342. Capital, Toronto.

Government and Politics.—There was no change in the Government of Ontario in 1902 except the retirement of J. T. Garrow and W. Harty from their posts as ministers without office. G. W. Ross was Premier and Treasurer; J. M. Gibson, Attorney-General; E. J. Davis, Commissioner of Crown Lands; F. R. Latchford, Commissioner of Public Works; J. R. Stratton, Provincial Secretary; R. Harcourt, Minister of Education; and John Dryden Minister of Agriculture. The Speaker of the Assembly was W. A. Evans. The House was opened on Jan. 7 by Lieut.-Gov. Sir Oliver Mowat, with a speech from the throne, in which the following are the significant passages:

"I congratulate you on the continued prosperity of the lumbering industry, which gives employment to so many of our people and from which such a large part of our revenue is derived. The permanent Crown forest reserves, amounting to over a million and a half acres, have been carefully protected during the past season, and no loss of any consequence from fire or other causes has occurred. Steps are being taken to further increase these reserves, in order, if possible, to establish a perpetual source of income from the forests of the province. The mining industry of Ontario is making steady and satisfactory progress. More capital and labor are now being employed in mining operations than at any previous time, and the output of the chief mineral products of the province is rapidly and steadily increasing in both quantity and value. The work of settling the agricultural lands of the Crown has been successfully prosecuted during the year. Extensive areas have been disposed of to actual settlers, most of whom are from southern Ontario. It is satisfactory to know that those who leave the older settlements of the province to obtain homesteads or employment in newer fields now realize that they can find unexcelled opportunities within our own boundaries.

"The adequate care and maintenance of the insane of our population still engages the attention of the Government. Additional accommodation for 150 patients has been furnished by the completion of the new asylum buildings at Cobourg. This will relieve, for the time being, the existing congestion of the asylums of the province; but I fear you will be again reminded at a not distant period, to consider the advisability of making further provision for accommodation of the increasing number of the afflicted class.

"I am glad to learn that very satisfactory progress has been made in the promotion of technical education, and that in several of our towns and cities special buildings and suitable equipment for the purpose have been generously provided, and also that the system of traveling libraries for the newer parts of the province, for which provision was made a year ago, has met with general approval, and will constitute Volume III of the Revised Statutes.

"The year just closed has been one of very gratifying prosperity to the agricultural classes. The growth of the dairy interests of the province is especially noteworthy, and the marked success of the exhibitors of the province at the Pan-American Exposition evinces the intelligence with which agricultural operations of every kind are carried on within the province. The improvements made at the Agricultural College by the erection of a physical and biological laboratory, and the early completion of the Massey Library and Museum, will add greatly to the efficiency of the college, and place it among the first agricultural colleges of America. The legislation of last session for the encouragement of the beet-sugar industry is likely to produce the results desired. The experiments conducted by the Department of Agriculture conclusively show that the Ontario province is most of sugar-beet growing of sugar-beets, and several companies are now preparing to undertake the work of sugar-production. The amendments to the factories act, requiring the owners of factory buildings to provide suitable fire-escapes, have greatly in-
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increased the safety of the operatives and those connected with the mechanical industries of the province. The fishing industry has, during the year, been unusually prosperous. The work inaugurated last year of restocking the inland lakes and rivers will be continued during the approaching season.

After passing important measures dealing with the liquor question and increasing the representation in the Assembly of new districts in the northern part of the province, the Legislature was prorogued on March 17. The royal assent was given to 116 bills, including the following:

Respecting mortmain and the disposition of land for charitable uses.

To amend the manhood-suffrage registration act.

To amend the Ontario election act.

To authorize the construction of the Temiscamingue and Northern Ontario Railway.

The agricultural and arts amendment act.

To approve and confirm an agreement between the Commissioners for the Queen Victoria, Niagara Falls Park Company and the Canadian Niagara Power Company.

Respecting the imperial statutes relating to property and civil rights incorporated into the statute law of Ontario.

Respecting expert witnesses.

Further to amend the 'mechanics' and wage-earners' lien act.

To amend the act respecting councils of conciliation and of arbitration for settling industrial disputes.

To amend the marriage act.

To amend the joint-stock companies winding-up act.

Respecting the sale of intoxicating liquors.

To amend the public health act.

To amend the Ontario factories act.

To amend the San José scale act.

To amend the act respecting the barberry shrub.

To amend the Ontario game protection act.

To amend the separate schools act.

The special elections for ministers of preliminaries of conflict and preparation on both sides, the elections for the Ontario Legislature took place on May 29, 1902. The campaign was opened at Peterborough by Premier Mackenzie in a most elaborate speech. "How many of the 2,000,000 people in Ontario," he asked, "had any substantial grievance against the Government? They had settled 150,000 people in New Ontario. Had any of them a grievance? They had spent $10,000,000 for the development of our railway system, and were doing in New Ontario what had been done in older Ontario many years before, where they had assisted 38 railways, 2,219 miles in length. They had kept pace with the wants of the country in regard to public buildings, on which they had spent $23,563,000 in the past thirty years. They had cared for the insane, the deaf and dumb, and the blind, and the expenditure in Ontario for charitable purposes was greater per head than in Great Britain or in any State of the Union. They had kept step with the progressive tendencies of the age in education, and with the agricultural wants of the people." He elaborated the details of useful legislation during the past three decades, and declared that the Conservative Opposition had opposed them all.

Mr. J. L. Whitney, the Opposition and Conservative leader, had been equally active. His policy was announced as including measures of law reform in the interest of the poorer litigant and in favor of one final and conclusive provincial appeal; the development of New Ontario and a railway into the Temiscamingue country; grants to railways only for development or colonization, and subject to Government control of freight and passenger rates; encouragement to the refining of minerals within the province; disposition of timber areas in pulp-wood lands under competitive tender; increased grants for agricultural purposes, and especially for agricultural schools; cooperation with the Dominion Government in promoting facilities for food transportation; educational reform in the direction of improving the curriculum and character of public schools; condensation and revision of municipal laws; elimination of alleged corruption and fraud from election procedure. The following was the Government or Liberal policy as announced and summarized by its supporters:

1. Early settlement of the unoccupied lands of the province by colonization and by the projection of the railways into New Ontario.

2. Manufacture within the province, and so far as practicable by Canadian labor, of the products of our forest and the smelting and refining of mineral products.

3. Increase of agricultural wealth by improved methods of husbandry, cold storage, and the production of beet-root sugar, and by reclaiming undrained lands.

4. Extension of trade with Great Britain in all natural products, but especially in cattle, horses, and dressed meats.

5. Disposal of forest wealth with a view to its perpetuation by reforestry, timber reserves, and parks.

6. Improvement of transportation by better construction of highways and removal of tolls.

7. Regulation of rates for passengers and freight on all railways subsidized by the province, and ultimate control of such railways at the option of the Legislature.

8. Application of public revenues for development of the province and relief of the taxpayers.

9. Revision from time to time of the laws governing the municipal and political institutions of the province and the improvement and enforcement of all laws affecting public morality.

10. Maintenance of the independence of the Legislative Assembly by maintaining the chain of the constitutional rights of the province.

11. Application of sound principles of education to the course of instruction in all our schools and colleges.

There was no actual dissolution of the Legislature, which expired on March 29. The writs for a new election were then issued; the nominations were held on May 22, and one candidate (a Conservative) was elected by acclamation; and on May 29 the contest closed with results in some doubt. As finally accepted on May 31, the result was as follows: 93 seats in all, of which the Liberal Government had carried 50 and the Conservative Opposition 47, with one in doubt. Some changes took place in the councils, and on July 2 the Government had a majority of one. At the end of the year the majority stood at two or three, with several by-elections pending. According to figures compiled from the majorities in the constituencies, Mr. Whitney had a popular majority of the votes polled.

The Prohibition Referendum.—Aside from the general elections, the chief public event of the year in Ontario was the referendum. Varied resolutions were passed by temperance organizations and submitted to the Government. On Jan. 24 more than 1,000 men interested in the
liquor traffic visited the Parliament buildings and presented a vigorous protest to the Premier against the impending legislation referring the question of prohibition to a vote of the people. James Haverson made the following statement in behalf of the delegation: "There was invested in the distilleries and breweries of the Dominion $15,500,000; in the real estate of the retailers, $38,000,000; in the stock and fixtures, $21,000,000; making $74,500,000 directly invested in the business. There was paid by the distillers and brewers to the farmers annually $2,382,000, and to the transportation companies $450,000; wages, $1,200,000; other outgoings, $1,012,000. The retailers paid $10,500,000 in wages. There was an outgoing by the trade of nearly $15,500,000 annually. There was in bond in the Dominion $14,000,000 gallons of spirits, which, with the duty upon them, represented $20,500,000 alone. The province of Ontario last year derived in revenue from the liquor trade $620,000, of which $250,000 was paid to the municipalities. All the distilleries of the country were in this province, and the largest number of the brewers. The retail trade of Ontario was more than half that of the rest of the provinces put together. Not only the liquor trade would be affected, but the banks, the loan companies, and the financial institutions."

The Premier gave a simple promise of consideration. On Feb. 12 Mr. Ross presented his measure to the Legislature in an elaborate speech.

The majority for the measure at its second reading on March 6 was 13. Very few amendments were accepted, though the date was changed from Apr. 4, and the voting requirements were adapted to the general election of 1898, instead of that of 1902. The bill finally passed the House on March 15 with the same majority as above. Meanwhile, on Feb. 29, F. S. Spence presented to a Convention of the Dominion Alliance for the Prohibition of the Liquor Traffic resolutions from its executive declaring the conditions attached to the referendum to be "difficult, unjust, and unreasonable." On March 26 the same committee issued a manifesto urging popular work and support for prohibition.

The vote in the electorate published a document signed by a large number of business and professional men protesting against the measure as unwise and impracticable.

The report of the Indecent Voting Committee that a sufficient vote had not been obtained, as 213,607 were necessary to make the measure law. But as the incomplete returns came in the vote was shown to be much larger than expected, until on Dec. 27 95,992 votes in favor of prohibition were received. The total vote cast was 301,288.

Finances.—The Premier and Provincial Treasurer of Ontario delivered his third annual budget speech in the Legislature on Jan. 22, 1902. He took great credit to the Government for their saw-log legislation of 1899, by which the export of logs to United States mills for manufacture had been stopped, and he pointed out the benefits of their policy of setting apart forest reserves to the extent of about 2,500,000 acres. He said that since confederation in 1867 they had received $3,814,658 interest on investments; that the Government had encouraged the railways of the province by adding $2,219 miles since 1871, at a total cost of $10,491,511. The estimated revenue for the year was $179,008 upon charges of Crown lands; $24,314 upon refunds; $25,738 upon miscellaneous; $7,097 upon drainage debentures purchased; $26,209 upon railway aid certificates; $102,909 upon annuity; $25,281 at the University of Toronto; $9,706 upon common-school lands, a total of $4,058,834. This, with a bank balance of $1,469,492 on Dec. 31, 1901, made up the total of $5,507,327. The estimated revenue for 1902 (excluding bank balances) was $4,075,872, and the estimated expenditures $4,064,226. The indebtedness of the province for annuities was $2,908,150, and on railway aid certificates $2,961,990. The Opposition, by adding to these latter figures various railway subsidies and other obligations said to exist, made out a total debt of $12,760,000, and by other sums added to the year's expenses estimated a deficit in the current accounts of $310,000.

Fisheries.—According to the latest published figures of the Dominion Department of Fisheries, the value of the capital invested in the lake fishing trade of Ontario was $780,042 in 1900, and the fish caught valued at $1,330,293, trout figured at a valuation of $531,854, whitefish $216,054, herring $163,560, pickerel $130,260, sturgeon $52,577, caviare $45,350, and pike $31,433. The report of F. R. Latchford for 1901 was dated Feb. 28, 1902, and said that licenses to fish with 2,410,627 fathoms of gill net and various other methods had been issued; that employment during the year was given to 2,802 men, 101 tugs, and 1,299 boats; that a capital estimated at $749,071 was invested in the industry; that the aggregate catch was 27,428,375 pounds, and its estimated value $1,428,078.

Crime and Lunacy.—The report of the Inspector of Prisons, etc., was presented to the Legislature on Feb. 15, 1902. He described some of the country jails as being in a bad condition, unsafe and unsanitary. Officials were excessive in numbers at some places, and deficient at others. The number of committals in 1901 was 8,346, or fewer than in the previous year. There were 7,314 male prisoners, and 1,222 females. Two-thirds of these were internee, and one-third could not read or write. There were 41 deaths in the year, and 10 escapes, of whom 6 were recaptured.
As to lunatic asylums, the report of the inspector showed that on Sept. 30, 1901, there were 4,604 patients in the asylums of the province, compared with 3,318 in 1890. The question of the relative increase of insanity, compared with the population, the insane declared to be very perplexing. While the provincial population had increased 56 per cent. in forty years, the number of insane and idiotic persons known had increased from 1,831 to 5,880, or 290 per cent. 

Assessment Commission.—On Feb. 13, 1902, the commissioners appointed in the preceding year to investigate the condition and laws regarding assessments and municipal taxation in Ontario, made their final report. They went into the whole subject with some elaboration, and concluded that "in Ontario, as everywhere else, the direct taxation of personal property generally fails to reach the new kinds of property or wealth which modern civilization has produced." The existing taxes should be abolished, and the only feasible substitutes were thought to be (1) an improved and more general tax, and (2) a tax on the occupiers of land, based on its rental value. Single tax was not only too radical, but it would be against the ideas of the community. Various recommendations were made, and a bill was submitted for the Government to utilize, but nothing was done in the matter.

Forestry and Pulp Wood.—The annual report on forestry in Ontario was published under date of Jan. 24, 1902. Statistics were given of the acreage in each county. The total showed 365,127 acres of woodland, compared with 425,781 in 1896. The experience and legislation of the United States in regard to reforestation were then described, and further action in Ontario was urged. The question of pulp-wood concessions in the forests of northern Ontario was a prominent political question. The Government asserted that these grants of territory, or rather of certain rights and privileges on the territory, were given under safe conditions and solely for purposes of development. The Opposition asserted that they were really grants of public property to men who had no interest in the welfare of the people. The area of the seven concessions was 15,000 square miles.

Minerals.—Steady progress was shown in the development and output of mines in 1901. The number of mines was 1,448. The average wages of laborers in the mines was 86.10 cents per hour. The total production of the four years preceding Jan. 1, 1902, was as follows: 1898, $7,235,877; 1899, $8,416,673; 1900, $9,298,624; 1901, $11,831,086. In 1901, therefore, the total production showed an increase of $4,555,200 in value over that of 1898, while the metallic products increased by $3,327,732. Of this latter output in 1901, copper contributed 11 per cent., nickel 37, and pig-iron 33 per cent. Gold, silver, iron ore, and steel were small in comparison. The number of such concerns incorporated in 1901 was 47, with a nominal capital of $27,716,000, while 13 companies of foreign origin took out licenses to sell stock and hold real estate in the province, with a nominal capital of $12,250,000. Mr. Gibson made the following comment: "It is a somewhat remarkable fact that metalliciferous mining in this province is almost wholly carried on by companies whose share capital is in the hands of people living in Great Britain or the United States. The mineral resources of this province are almost without exception; in gold it is all but true, and so also in iron." The lead in progress was taken by the copper-nickel industry. The yield of nickel ore for the year amounted to 8,888,000 pounds, or 4,441 tons, valued in the matte at $1,869,970. This was an increase in quantity of 23 per cent., and in value of 14 per cent. compared with 1898. The copper contents of the matte were 1,457 tons, valued at $589,080, compared with 3,304 tons, worth $319,881, in 1901.

The iron industry occupied the second place in importance, and the progress was very marked. This was principally owing to the extensive development of the Helen Mine in Michipicoten, from which most of the ore now raised is taken. In 1901 the amount of ore produced was 274,532 tons, worth $174,425, which was more than three times the quantity mined in 1900. The output of pig-iron was largely augmented both in value and quantity. In 1900 92,385 tons were got out, valued at $936,066, while in 1901 the output was 110,470 tons, of the value of $1,701,703.

There was a continuous decrease in the gold product. Only 9 mines were producing gold against 18 the previous year. Their output was 14,293 ounces, worth $244,443. The silver-mines yielded 161,400 ounces, valued at $82,630, against 160,102, valued at $99,740, the previous year. The only zinc-mines in operation yielded $15,000 worth of ore, or 1,500 tons.

Petroleum products showed a decline, the yield of 1901 having a value of $1,467,940.

Agriculture.—The creameries in Ontario at the end of 1901 numbered 286, with a production of butter valued at $1,798,264, against 380 and a production of 1,931,137 in 1900. The average wages of farm-laborers, according to the annual report of the Bureau of Industries for 1901, was $106 a year, with board, in yearly engagements, and $95 a year without board. By the month wages were $117.78 in the working season with board, and $27.05 without. Domestic servants averaged $6.90 a month. The areas of assessed land in the province in 1901 was 23,636,175 acres, of which 13,436,492 were cleared, 6,715,872 were woodland, and 3,483,624 acres were swamp, marsh, or waste land. The crops for 1902 were as follows: Oats, 60,431,439 bushels, per acre 42.6; peas, 7,604,679 bushels, per acre 24.6; potatoes, 12,942,022 bushels, per acre 52.1; carrots, 3,277,161 bushels, per acre 19.7; pumpkins, 1,911,683 bushels, per acre 20.5; turnips, 39,140,924 bushels, per acre 511; wuzels, 174,204 bushels, per acre 625; corn for husking (in the ear), 20,512,194 bushels, per acre 55.1; hay and clover, 4,955,436 tons, per acre 1.87. There were 2,777,983 acres of pasture land in the province in 1901; 346,915 acres of orchard and garden, 12,227 acres of vineyard, and 677,935 apple-trees of fifteen years and over, producing 14,430,650 bushels of apples. The cattle on July 1 numbered 2,507,620, and were worth $50,527,119. Those sold or slaughtered in the year numbered 9,180,990, valued at $29,290,936. The sheep numbered 1,761,790, worth $7,775,793. Those sold or slaughtered in the year numbered 729,148, worth $3,103,513. The hogs numbered 1,401,885, and were valued at $9,298,512. Those sold or slaughtered in the year numbered 1,973,405, valued at $17,548,490. The poultry numbered 9,745,236, valued at $2,859,175. Those sold or killed in the year were valued at $1,305,960. The value of the wool-dip was $781,769, and the product of bees in the province was worth $1,111,099.

OREGON. (See under United States.)
PACIFIC CABLE. One of the most notable events of 1902 was the laying of the Pacific cable and the opening of telegraphic communication with Honolulu, Hawaii. Honolulu is about the same distance from San Francisco that New York is from Liverpool, and this cable forms an important link in the great transpacific cable, which, when completed, as expected by July 4, 1903, will encircle the earth. For more than twenty years the necessity of a Pacific cable has been urged, but not until after the late war with Spain was the subject taken in hand in a definite manner. After the acquirement of the Philippine Islands and the annexation of Hawaii, it became a matter of national importance, and the late President McKinley sent a special message to Congress on Feb. 10, 1899, urging the necessity for a transpacific cable. The late Judge M. Mackay recognized the growing importance of American trade opportunities in the Orient, and this was the prime consideration that induced the Commercial Cable Company, of which he was president, to undertake the laying of a cable across the world's broadest ocean. A contract was awarded to the India-Rubber, Gutta-Percha and Telegraph Works Company (limited), of Silloth, on the Solway Firth, England, for the construction and laying of the section of cable from San Francisco to Honolulu. A second contract was then awarded to the Telegraph Construction and Maintenance Company of Greenough, England, for constructing and laying a submarine cable from Honolulu to Manila, Philippine Islands, via Midway and Guam islands, where repeating stations are to be located.

The cable steamer Silvertown laid the section from San Francisco to Honolulu, and the cable steamers Anglia and Colonie will lay the section from Honolulu to Manila. The Silvertown arrived at San Francisco on Dec. 4, 1902, seventy-five days from London, via Cape Horn. The shore end of the cable was laid on Dec. 10, and on Sunday, Dec. 14, the easterly end of the great cable was spliced to the shore end at a point on the ocean about half a mile south from the Cliff House. The ceremonies attending the landing and splicing was witnessed by 50,000 persons. Miss Lucille Gage, the ten-year-old daughter of the Governor of California, broke the bottle of wine and christened the great wire rope "Pacific 600." The steamer sailed at noon of the 14th for the islands, paying out the cable on route and keeping up daily communication with the San Francisco office until Friday morning, Dec. 26. Nothing further was heard until 11.15 p. m. Jan. 1, 1903, when connection with Honolulu was complete and the first message came through. It was one of congratulation from the people of Honolulu to President Roosevelt.

This section of cable is 2,278 nautical miles in length, and the greatest depth of water reached is 3,175 fathoms, where the pressure is equal to four tons to the square inch. The cable averages one and one-eighth inches in diameter and is composed of one main conducting copper wire 0.008 of an inch in diameter, with ten copper wires each 0.0415 of an inch in diameter wound around it, weighing 500 pounds to each nautical mile. The dielectric or insulating covering is three coats of gutta-percha 0.432 of an inch thick, weighing 315 pounds to each nautical mile. For three or four miles out from the cable is closely wound with brass tape as a protection against the teredo, a small boring worm which is very destructive.

PACIFIC OCEAN COMMERC. The opening of new fields of trade in the Orient and in the numerous islands of the Pacific Ocean in the past few years, and the rapidly increasing wants of the millions of people in these distant lands, are attracting the attention of all the nations to a greater extent than ever. Since the close of the war with Spain the United States has taken a foremost position as a world power, and by reason of geographical place and the shipping facilities at Pacific coast ports, is in a better position to supply both food products and manufactured commodities in these new fields of commerce than any other nation. At present the imports of Asia and Oceania aggregate $1,200,000,000 a year, of which the United States supplies more than 10 per cent., but its share is steadily growing. The fiscal year ending June 30, 1902, is a fair index of the growth of this trade, and both exports and imports show an increase. To Japan the exports from the United States were $2,000,000 greater than in the previous year, and to China there was an increase of $14,000,000. The increase in imports from Asia and Oceania was $15,000,000. In 1902 the most satisfactory showing in American commerce was made in the export trade to Asia and Oceania. The commercial advantages of the United States to the Orient is that its Pacific coast ports—San Francisco, San Diego, Portland, Seattle, and Tacoma. Facts and figures show this advantage plainly. The distance from London to Shanghai is 10,500 miles via the Suez Canal, while from San Francisco to Shanghai it is only 5,840 miles, and a trifle less from Puget Sound ports. It is 2,276 miles from San Francisco to Honolulu, and 6,555 miles from San Francisco to the Philippine Islands via Honolulu and Guam. Merchandise from New York can be laid down in Shanghai, China, in a shorter time, via the overland route to San Francisco, than from Liverpool or Hamburg. Considered in every respect, the United States is favored by natural conditions in Asiatic trade affairs. Nearly one-quarter of the aggregate exports of the United States to Oceania and the Orient are shipped from San Francisco, the total being about $23,000,000 a year. In 1902 the total from San Francisco to China was $6,189,700; to Japan, $5,800,000; to Australia, $3,629,000; to the Philippines, $1,390,000; to Japan, $1,390,000; to Tahiti, $380,000; and to South Africa, $760,000. Samoa, Fiji, and the numerous islands of the Pacific were all represented in the year's business to a liberal extent. From June 1, 1902, to Dec. 31 the exports from San Francisco to Hawaii were valued at $5,300,000, no records having been kept previously since June 14, 1900.

In the last three years 82 steamers, having a total tonnage of 11,500 tons register, have been added to the Pacific Ocean fleet that makes San Francisco its home port.

Puget Sound ports are also largely interested in Oriental trade, and both Seattle and Tacoma have several regular steam lines to Japan, China, and the Philippine Islands. Tacoma has three large steamers plying between that port and Vladivostok, Siberia. The Great Northern Steamship Company, with headquarters at Seattle, will have three new steamships of the largest size, now nearing course, with home base at

Portland, Ore., is also becoming deeply inter-
ested in the Oriental trade. Three large steamers are already making regular trips, and the trade is rapidly increasing in importance. The rapid growth of the Oriental and oceanic trade with Pacific coast ports in the last three years has been only rivaled by that of the coffee and fruits and rice and tea. The frame work of the trade is that of the Chinese, and indicates the future importance of the commerce.

PARAGUAY, a republic in South America. The Congress consists of a Senate and House of Representatives, both elected by the direct suffrage of adult male citizens, 1 Senator to 12,000 inhabitants. The constituency of a member of the lower house is half as numerous. There are 13 Senators and 20 Representatives, all of whom receive a salary of $1,000. The President is elected for four years. Emilio Aceval was elected President for the term ending Nov. 25, 1902, and Héctor Carvallo was elected Vice-President. The Cabinet at the beginning of 1902 was composed as follows: Minister of the Interior, Guillermo de los Ríos; Minister of Foreign Affairs and Colonization, J. Cervino Flecha; Minister of Justice, Víctor Villarroel; Minister of Public Instruction, Pedro Bobadila; Minister of War, Col. J. A. Escorra.

Area and Population.—The area of Paraguay is about 157,500 square miles. The population by the census of 1902 is stated to be 3,288,102, not including about 100,000 uncivilized Indians. In 1895 there were 18,180 foreigners. In the ten years ending with 1900, 4,055 immigrants. The number in 1900 was 170,500. Asuncion, the capital, has about 45,000 inhabitants. The Paraguayans are a mixed population, part Spanish, part Guaraní Indian, and to some extent African.

Finances.—The revenue in 1900 was stated to be $9,866,000, and the expenditure $8,122,139. The revenue is mainly derived from customs. The budget estimate for 1900, which was revised for 1901, made the total expenditure $8,065,782, of which $1,846,657 were for administration, $2,469,963 for finance, $2,118,640 for justice and education, $4,567,275 for the army. The army consists of 82 officers and 1,500 men, the navy of 3 armed steamers. The foreign debt, resettle in 1885 by the concession of lands and acres in 1885 by the reduction of interest, amounted in 1901 to $653,500. In addition to this the Government was responsible for $786,747 of railroad bonds and owed the National Bank $45,500. There is a debt of $12,393,600 in silver due to the Argentine Republic, and one of $9,875,500 due to Brazil. The internal debt on Jan. 1, 1901, was $1,163,340. The bank-notes in circulation amounted to $12,991,320. Gold was at a very high premium in 1901.

Commerce and Manufactures.—Paraguay is mainly a grazing country. There were 2,285,000 cattle, 182,700 horses, 7,028 mules, 214,000 sheep, and 32,334 goats in 1899. The growing of yerba-maté, or Paraguay tea, is a peculiar and important industry which was carried on by the Government until the plantations were turned over to foreign capitalists. Fruit-growing and the planting of tobacco are growing enterprises. In 1899 the number of oranges exported was 10,000, and rubber have been started. Timber is exported, and a trade has grown up in the Quebracho colorado, a wood containing a tanning extract, which is shipped to Germany. The production of this substance has been established, also a sugar factory. About 225,000 hides are exported annually to Buenos Ayres. With Government aid 7 agricultural settlements have been founded, with 2,148 colonists, who cultivate coffee and fruits and rear horses and cattle. The English company which took public lands in partial settlement of the Government debt sold 32,000 acres in 1899. The number of people settled was 170. The public lands which constituted three-quarters of the territory have passed into other hands, and a great part now forms immense private estates. The total value of imports in 1900 was $1,838,710 in gold; exports, $2,064,290. Textile goods, wines, and rice are the largest imports. Great Britain supplies 85 per cent. of the textiles and 48 per cent. of the total imports. The export of yerba-maté in 1900 was valued at $500,000; tobacco at $175,000; hides at $412,000. Timber, oranges, and hair are the next most important articles. There were 556 vessels, of 65,075 tons, entered at the port of Asuncion in 1900.

Railroads, Posts, and Telegraphs.—The railroad from Asuncion to Pirapó, 156 miles, carried 624,741 passengers and 72,693 tons of freight in 1900; receipts, $1,568,037 in currency.

The post-office in 1900 handled 1,279,378 pieces of mail matter.

The length of telegraph lines in 1900 was 600 miles; number of despatches, 83,550.

Political Revolution.—A revolution supported by the army was carried on Jan. 9, 1902, on the eve of the inauguration of the new administration. A detachment of soldiers surrounded the house of Dr. Aceval, carried him a prisoner to the barracks, and to his wife to sign a letter of resignation. He was allowed to consult the leading members of his party, and when he refused to resign the revolutionary leaders announced that he was deposed. When Congress met in extraordinary session a few hours later on the summons of Vice-President Carvallo the revolutionists denounced the President as a traitor who had forfeited the confidence of the country. The friends of the President called for specific charges and regular impeachment and trial according to the Constitution. A fight between the two parties followed, in which one man was killed, and several Senators, Deputies, and soldiers were seriously wounded. Besides President Aceval, former President Egusquiza was arrested by the military, and when they were released both took refuge in the Argentine legation. The Minister of War, supported by the Minister of Finance, was at the head of the revolution. Guillermo Kios was the presidential candidate of the revolutionary party after Dr. Facundo Insfran, the first choice, was killed. During the fight in the Senate chamber, in which the supporters of the President were getting the better of it, being better armed, the artillery began to fire on the building with Krupp and Maxim guns. The friends of the President were in the minority when the firing was stopped, and Héctor Carvallo was by formal vote declared Acting President.

PATRONS OF HUSBANDRY. (See GRANGE, NATIONAL.)

PENNSYLVANIA. (See under UNITED STATES.)

PERSIA, an empire in central Asia. The reigning Shah in Shah, or Emperor, is Muzaffer Edin, born March 25, 1883, second son of Naseer Edin, whom he succeeded on May 1, 1896. The Valiahd, or heir apparent, is Mohammed Ali Mirza, the Shah's eldest son, born June 21, 1872. The ministry appointed on the 3rd of September ended the power. In 1896, was composed as follows: Grand Vizier, Mirza Ali Ashgar Khan; Minister of Foreign Affairs, Mushir ed Dowleh; Minister of War, Prince...
Amir Khan es Sultaneh: Minister of the Interior, Daghel el Muluki; Secretary of the Treasury, Mubarak es Sultaneh; Minister of Agriculture and Domains, Nassir es Sultaneh; Minister of Justice, Ghulam Hussein Khan; Minister of Posts, Mirza Mohsin Khan; Minister of Telegraphs, Mukhrir ed Dowleh; Minister of Public Instruction, Neyer el Muluk; Minister of Mines, Mukanis es El Mamaliik; Minister of Commerce and Religious Endowments, Kayam Makam. The system of government is that of an absolute Oriental monarchy, controlled only by occasional religious influences and popular outbreaks against intolerable wrongs. The Shah delegates his despotic powers to his ministers and to provincial governors, who transmit it to their underlings, to whom they sell their offices with the understanding that the prices paid will be exacted from those lower down in the scale, and in the last instance from the people. Whenever the superiors wish to raise more money they need only threaten to remove those below them in order to extract fresh gifts as the price of continuance in office. Justice, both in the courts of the Urf, or civil law, and those of the Shari, or ecclesiastical law, is bountiful.

Area and Population.—The estimated area of Persia is 628,000 square miles. The population is estimated at 9,000,000. The empire is divided into 33 provinces of various sizes, each of which is under a governor-general. Of the population about 8,000,000 are Shiite Mohammedans, 45,000 Armenians, 35,000 Jews, 25,000 Nestorians, and 9,000 Persians.

Finances.—The revenues belong to the Shah's treasury, and after payment of the expenses of the court, the army, the general administration, the colleges, contributions to poor provinces, and pensions and allowances to princes and members of the royal Kajar tribe, there formerly remained a considerable surplus to be added each year to the royal treasure. The fall in the price of silver reduced the revenues proportionately; consequently the present Shah can accumulate no hoard, and his fortune consists principally of what he has left of what he inherited by his ancestors, which at his accession were believed to be worth $15,000,000. The savings of the late Shah alone were at one time not less than $200,000,000. The total annual revenue is estimated at 75,000,000 kran, equivalent to $7,500,000. About 15 per cent. of the revenue is derived from customs, 3 per cent. from posts and telegraphs, 3 per cent. from fisheries, mines, and the sale of privileges, and 82 per cent. from taxes assessed on towns, villages, and districts. The expenditure on the army amounts to 18,000,000 kran. For local government a 2,000,000 kran is allowed, and out of this sum comes the only expenditure on public works. The useful expenditure for the public services forms a small fraction of the total expenditure, most of which is absorbed by extravagant officials who do not work, and who get no regular salaries, but enrich themselves and those above them by the official perquisites that ancient custom enables them to obtain. Whenever a province revolts against the exactations of its governor and his subordinates and lapses into anarchy these officials are dismissed in disgrace and one of the masterful men in the official hierarchy is sent as governor to restore order in the turbulent province by whatever tyrannical methods he finds necessary to employ. Such sort of tyrannical princes are the only men win the approbation, not only of the Shah, but of the people they rule over, since these prefer strong rule to the chaotic conditions that result when authority is in feeble hands. The Persian public revenue has declined 32.5 per cent. since 1877. The value of the silver kran has fallen nearly 50 per cent. since 1884, and the further fall in 1902 caused a commercial and economic crisis. The rise in the prices of tea, sugar, cotton goods, and other imported necessaries and native foodstuffs, which powerful officials and large landowners have manipulated for their own benefit, has doubled the cost of living in twenty years.

The existing public debt consists of loans obtained by the Shah since 1900 from a Russian banking corporation created for the purpose of financing Persian loans. The first loan, made in January, 1900, was 22,500,000 rubles. This debt, which pays 5 per cent., is secured on custom-house receipts, except those of Fars and the Persian Gulf, and has the guarantee of the Russian Government. A loan of £500,000 obtained from an English banking concern in 1892 was paid off from the proceeds of the Russian loan, and the Persian Government agreed to conclude no new foreign loan without the consent of the Russian bank, which in 1901 made another loan to the Persian Government of the nominal amount of 12,000,000 rubles on the like condition that it should bear no interest and no loans with any other power than Russia before 1912. A fresh loan of 20,000,000 rubles was negotiated with the Russian bank in 1902. The Shah and his ministers have been spending, with the aid of the Russian loans, twice the present diminished revenue of the country, and the greater part of the expenditure has been sheer prodigal waste. His two journeys to Europe are believed to have cost $1,500,000, and this part of his expenditure has been most resented by his people.

The Army.—The Persian army numbers 80,000 officers and men. It is badly armed with miscellaneous rifles, ill-fed and clothed, and irregularly paid, except the Persian Cossack brigade, about 2,000 strong, consisting of 4 regiments of cavalry and 2 battalions of field-artillery, thoroughly trained and disciplined and permanently commanded by Russian officers. The headquarters of this force are in Tehran, and it is the Shah's guard, which secured his peaceable succession to the throne and is employed for the suppression of riot or rebellion occurring in any Persian city.

Commerce and Production.—Persia produces wheat and barley, rice, fruits, opium, silk, wool, gum tragacanth and other gums, carpets, cotton, tobacco, pearls, and turquoises and other precious stones. Among the minerals are copper, lead, iron, zinc, tin, orpiment, ocher, cobalt, antimony, salt, coal, petroleum, and alum. The imports are cotton and woolen fabrics, glass, carriages, sugar, tea, coffee, petroleum, and drugs. The chief exports are dried fruits, opium, cotton, wool, silk, carpets, pearls, and turquoises. The customs duties, formerly farmed out, are now collected by Government officers. European merchants since 1828 have paid a uniform duty of 5 per cent. on imports and exports. Persians formerly paid from 1.4 to 8 per cent. at the frontier and various transit and road duties in the interior; but on April 7, 1901, these internal barriers were abolished and the customs duties were made the same as for foreigners. The collection of customs by the Government was first tried in Azerbaijan and Kermanahah in 1899, and in the following year was extended to the whole of the empire excepting those within the administrative divisions of Karum river, Kurdistan, Sistan, and the minor ports on the Persian Gulf. The values in pounds sterling of imports from and exports to different
countries in 1901 as reported by the Persian custom-house were as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>£2,908,000</td>
<td>£1,448,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>1,400,000</td>
<td>1,280,000</td>
</tr>
<tr>
<td>Turkey</td>
<td>325,000</td>
<td>400,000</td>
</tr>
<tr>
<td>France</td>
<td>372,000</td>
<td>400,000</td>
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<tr>
<td>Austria</td>
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<tr>
<td>China and Japan</td>
<td>40,000</td>
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<tr>
<td>Afghanistan</td>
<td>34,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Germany</td>
<td>24,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Other countries</td>
<td>50,000</td>
<td>90,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£3,107,000</strong></td>
<td><strong>£3,986,000</strong></td>
</tr>
</tbody>
</table>

The total commerce that passed through the custom-house was according to these returns £8,000,000 sterling, and that of the excepted districts is estimated at £500,000. The trade of the customs stations which have not yet been transferred to the European officials lent by the Belgian Government is not included in these figures, nor are the large exports of pearls from the fisheries of the Persian Gulf, nor the mysterious flow of silver from Persia into Afghanistan and Russian Central Asia, nor the imports of silver for the Persian mint and of Persian coins minted recently in Russia. Although imports have increased, exports have declined, and the disparity is growing greater and is due not only to the large loans contracted by the Shah in Russia but to the consumption of the savings accumulated during the peaceful period of the last reign. There are many indications showing that the people, as well as the court and officials, are becoming impoverished. The process has been going on, and the government is now at the same time grown more extravagant. Nasreddin in the last ten years of his reign squandered half the treasure he had accumulated in the previous forty years. The remainder has been spent by the present Shah.

In 1900, as estimated from the amount paid into the treasury by farmers of customs, which was assumed to be 80 per cent. of the duties collected, while these were supposed to average 4 per cent. ad valorem, the total trade of the country was calculated at £16,500,000. In the ports of Bushire, Abshar, Shushtar, and Memnu, on the Persian Gulf, there were £809,449 imported from India in 1900, £306,226 of exports to India and £903,854 of imports from and £176, 125 of exports to Persia, making a total trade of £2,936,583, of which £961,140 tons were British. Russian exports to Persia are encouraged by special rates on Russian railroads amounting to a bounty of 15 or 20 per cent. ad valorem. The duty collected on imports is fixed by the Russian treaty of 1828 at 5 per cent. ad valorem, and other nations have an equal advantage with Russia under the favored-nation clause, with the exception of Turkey, which has special arrangements of a less liberal character.

**Railroads, Posts, and Telegraphs.** The only existing railroad is one 6 miles long between Teheran and Shah Abdul Azim, built by a Belgian company in 1888. The postal service was farmed out until in March, 1901, it was made a Government department. The net revenue from posts in 1892 was expected to be about £8,000.

The only existing telegraph-line, with 7,000 miles of wire. The Persian Government has 3,700 miles of wire. The British Government has a staff which by virtue of conventions made in 1856 for the supply of 175 miles of wire, forming part of the overland Indo-European line. Another part of this system, consisting of 415 miles of line, with 1,245 miles of wire, belongs to the Indo-European Telegraph Company. The line of the British Government earned £111,867 in 1900, and the company's line £154,926. In August, 1901, the British Government obtained a new convention allowing it to build a line 900 miles long, with 2,700 miles of wire, from British Baluchistan to Kashan. The Persian Government is constructing a line connecting Tabriz with the northwestern frontier and one 300 miles long from Meshed to Sistan.

There is a British Imperial Bank which has the sole privilege of issuing bank-notes, but its business has contracted owing to the competition of the new Russo-Persian Discount Bank, and the only Government business it obtains is the transmission to Teheran of customs revenue collected in districts where the Russian bank has no branches. The value of Russian trade with Persia has increased 125 per cent. since 1888, while trade with the British Empire has decreased 33 per cent. The large Russian cotton goods and other manufactures have driven out British imports. In 1892 imports of cotton from England to Persia were 40 per cent. less than in 1901. The Persian custom service has been reorganized by a staff of Belgian officials, increasing the revenue, which was formerly farmed out to favored Persian officials, over 66 per cent. The treaty rate of 5 per cent. on goods to the value of £10 or under has been raised to 10 per cent. by rebates offered by some of these officials, who by this expedient attracted a larger share of the trade to their own ports. The Belgians have collected a uniform 5 per cent. and have abolished internal octroi and transit duties, which were exacted from Persian merchants only, foreigners being exempt by treaty. The yield of customs in 1901 was 1,600,000 tomans, nearly equal to 1,600,000, two-thirds of which is absorbed by the interest and sinking-fund of the two first Russian loans. Negotiations are going on with Russia for an increase of the general tariff by the substitution of specific duties ranging from 7 to 10 per cent. for the 5-per-cent. ad valorem rate. The Turkish treaty will also be revised, so that foreign mail can be sent by land at more favorable rates than those established in the new Russian treaty. The growing British trade by the Karun river route from the Gulf is expected to be increased by the concentration of the custom-houses at Shuster and Ahwaz, compelling merchants to clear all goods at Memnu.

The cheap fabrics of European factories have in Persia, as in other Asiatic countries, caused the once flourishing manual industries of the towns to languish. The hand-loom silks, satins, and cotton and woolen stuffs, the copper vessels, the pottery, tiles, and other products of industrial art, excepting rugs, shawls, and such other articles as find a foreign market, are made in diminishing quantities and the old arts are passing into oblivion. Agriculture, too, is decaying. Although the farming population is exceedingly laborious and skilled in cultivation, with the aid of underground aqueducts by which the slender water-supply is distributed over the largest possible area, the land is passing into the possession of rich officials, who have it in their power to divert the sources of the water, and the tenant can buy at their own price the land of small owners and exact from their tenants the maximum share of the produce.

**Political Affairs.** The foreign debts contracted by the court, for which the revenues have
been pledged without any visible benefit to the country in the shape of roads and bridges or irrigation canals, have caused wide-spread popular discontent. One of the manifestations of this is a revival of Babism in a socialistic and agrarian form. The Atabeg Azam, Mirza Ali Ashgar Khan, is the object of the manifestations of disaffection, rather than the Shah, who is regarded from his yielding and good-natured disposition to be as wax in the hands of his able and resourceful Vizier, who in spite of his ascendency over the Shah was replaced by the Amin ed Dauleh early in 1897, and only recalled to power in the middle of 1898. The turbulent spirit shown by the people of Shiraz in 1902 caused the Governor residing in that city, who was the Shua es Saltaneh, the second son of the Shah, to be recalled. The Amin ed Dauleh when he took office announced a comprehensive scheme of administrative reform, including a revision of the land tax, the reduction of the standing army to 20,000 men, the conversion of the irregular cavalry into a gendarmerie, separate administrations for the collection and the expenditure of revenue, and the framing and publication of annual budgets setting forth the revenue and expenditure of the Government. Before he was dismissed he introduced a nickel coinage and started a number of schemes with the aid of private subscriptions. Some of the minor features of his program have been carried out by his successor, though the program as a whole was discarded. The Shah in May, 1902, accompanied by his Grand Vizier, made his second journey to Europe, visiting the heads of the important states and not returning to his capital till October. Abul Fath Mirza, the Salar ed Dauleh, the third son of the Shah, twenty years old, was appointed regent during the Shah’s absence.

The governments both of Great Britain and of Russia declared in 1884 their policy in Persia to be the maintenance of its independence and integrity and an open door for trade throughout the empire. These declarations have been repeatedly renewed. The open door to British trade in northern Persia which existed when Kars and Batum were Turkish ports has been closed by Russia, which imposes protective duties on foreign goods though they are in transit for Persia. All flags except the Russian have been shut out from the Caspian Sea. Batum, which Russia undertook in the treaty of Berlin to make a free port essentially commercial, has become a great port for Russian commerce, but not free to other nations, since they must pay Russian import and export duties in goods destined for or coming from Persia or central Asia. In the Persian Gulf the Russians have attempted to build up a trade by subsidizing steamers plying between its ports and Odessa. The road from the Caspian port of Reshul to Teheran, the only good one in Persia, was built with Russian capital, and Russian goods that are brought over it now undersell British goods in central Persia as far as Ispahan. Two other Russian-built roads tap other parts of north Persia. A concession for a road from the Caucasian frontier through Tabriz to Kasbin was given for the loan of 1901,

and for the latest loan one for a road from Tabriz to Teheran. Russian political influence at Teheran has to some extent baffled the British schemes for opening commercial routes from the southern ports into the heart of Persia. The British, however, are still commercially supreme in the south, and they have opened an overland trade route from India through Baluchistan, the Quetta-Nushki route, with a view of retaining a part of the trade of the northern provinces. In five years the traffic on this road has risen from 500,000 rupees to 1,600,000 rupees. British vessels of war have for a long period patrolled the Persian Gulf, which was infested with pirates until Great Britain undertook this police duty. The ascendency of Great Britain in the Persian Gulf was stated by the spokesman of the Foreign Office in the House of Commons to be the foundation of British policy. A naval base in these waters in the possession of another power would flank the ocean route to India and the far East and to Australia. The British Government in 1902 obtained the right to build a new telegraph-line from Baluchistan across Persia to Kashan. An Australian capitalist obtained a concession of the right to work the petroleum wells of the Kerkhah valley and to lay a pipe-line to tidewater. The oil-fields in southwestern Persia begin in the district between Bagdad and Kermanshah that is in dispute between Persia and Turkey. Russian diplomacy induced the Persian Government to defer for ten years the construction of railroads or the granting of any concession for that purpose either to Persians or to foreigners. The British Government subsequently obtained an agreement that whenever railroad construction should begin British capital and enterprise would have as good opportunities as are extended to any foreigners. At Robat, the station on the Persian border of the caravan route opened
through Baluchistan, the Indian troops sent to guard the road occupied two posts in Seistan. Mirza Mahmud Khan, Governor of Kirman, was with a Persian force to the spot, and arranged with the British commander that the Anglo-Indian troops should withdraw from Mirza, which is undoubtedly Persian. The garrison at Robat, the other disputed place, was allowed to remain on the boundary at that point not being clearly defined.

PERU, a republic in South America. The Congress consists of a Senate of 48 and a House of Representatives of 108 members. Members of both houses are elected for six years by electoral colleges, the delegates to which are elected in each province by parochial electoral colleges. The President and Vice-Presidents are elected for four years by the direct vote of the nation. The President of the Republic for the term beginning Sept. 8, 1899, is Eduardo de Roca. The Vice-President are Dr. Isaac Alzamora and Federico Brezani. The Cabinet constituted Sept. 13, 1901, was composed as follows: President of the Council and Minister of Foreign Affairs, Casares Chacatana; Minister of Justice, Worship, and Public Instruction, Lizardo Alzamora; Minister of the Interior and Police, Leonidas Cardenas; Minister of War, War and Marine, Capt. Meliton Carvajal; Minister of Finance, Andreas Ward; Minister of Public Works, Senor Eug. A new ministry was formed on Aug. 10, 1902, as follows: Prime Minister, Martin de la Irona; Interior, Alejandro de Ustias; War and Marine, Col. Diz Canseco; Justice, Dr. Jose Aria; Finance, José Reinoso; Public Works, Eustaquio Avila.

Area and Population. The area of Peru is 693,733 square miles. The population in 1896 was 4,908,999, not counting uncivilized Indians, the numbers of whose population are not known. Of the population less than 14 per cent. are whites, 2 per cent. negroes, 2 per cent. Asiatics, 58 per cent. Indians, and 24 per cent. mestizos, both Choles and Zambos. Lima, the capital, has above 100,000 inhabitants.

Finances. The revenue in the year ending May 31, 1900, was 14,123,278 soles, and the expenditure 12,918,970 soles. For the year ending May 31, 1901, the revenue from customs was estimated at 7,857,100 soles; from taxes, 5,485,300 soles; from the salt monopoly, 800,000 soles; from post office, 410,000 soles; from other sources, 706,110 soles; total revenue, 15,309,900 soles. The estimated expenditure for the Congress was 355,230 soles, for the Ministry of the Interior, 2,961,400 soles; for the Ministry of Foreign Affairs, 634,590 soles; for the Ministry of Justice, 1,314,710 soles; for the Ministry of Finance, 4,988,700 soles; for the Ministry of War and Marine, 3,304,330 soles; for the Ministry of Public Works, 378,280 soles; total expenditure, 13,717,460 soles.

The Army and Navy. The peace strength of the army is 6 battalions of infantry, of 320 men each; 7 squadrons of cavalry, numbering 800 men; 1 regiment of artillery, numbering 600 men; and 2,000 police. French officers have undertaken to reorganize the army, which has lately been provided with 20,000 Mauser rifles, 24 light field-guns, and 24 Gatlings.

The naval force consists of the cruiser Lima, of 1,750 tons, the transports Constitution, and the small steamers Santa Rosa and Chalaco. The foreign debt, consisting of the 6-per-cent. loan of 1870 and the 5-per-cent. loan of 1872, originated 40,011,090 soles, with arrears of unpaid interest which amounted in 1889 to £22,998,651, was assumed in 1890 by the Peruvian Corporation, which, as agent of the bondholders, received the concession of the guano deposits, the mines, and the public lands for the period of sixty-six years. Chile, having possession of some of the guano islands, made arrangements to pay the proceeds of sales of the guano to the bondholders, but a dispute arising, the moneys were deposited to await the award of a court of arbitration at Lausanne, which, in November, 1901, delivered its decision as to the distribution of the amount of dispute, which was £358,566. On Feb. 2, 1901, the guano deposits on Huanillos, Punta Lobos, and Pabellon de Pica, which had been surrendered to the Peruvian Corporation, reverted to the Chilean Government, while the island of Lobos de Afuera was retained by the corporation. The internal obligations, including the floating debt, amount to 40,000,000 soles, on which 1 per cent. interest is paid.

Commerce and Production. The quantity of cotton exported in 1900 was 7,246 tons; of coffee, 1,450 tons; of sugar, 112,000 tons. The Peruvian Corporation has attempted to colonize the concession, consisting of 2,750,000 acres. The coca plantations in Libertad comprise 2,700,000 trees on 9 estates. The export of coca in 1900 was 630 tons, besides 10,479 boxes of cocaine. Of wool 2,030,700 kilograms were exported in 1898 and 1,280,000 kilograms of llama wool. About 1,500 tons of rubber are annually shipped down the Amazon river to Iquitos.

There were 4,714 mines in 1899, many of which had been abandoned. The minerals include silver, copper, lead, gold, zinc, quicksilver, salt, sulfur, coal, and petroleum. From the Cerro de Pasco mines were exported 16,800 tons of ore containing from 30 to 50 per cent. of copper in 1900, and the same mines produced 1,000,704 ounces of silver in 1898.

The total value of imports in 1900 was 23,171,500 soles, and of exports 44,979,900 soles, not including the trade done down the Amazon from Iquitos. The imports of cotton goods were 5,812,570 soles; of provisions, 2,629,030 soles; of furniture, 1,691,620 soles; of woolen goods, 1,477,830 soles; of other textile fabrics, 865,090 soles; of drugs, 971,540 soles; of miscellaneous merchandise, 7,988,844 soles. The exports of ores were 16,950,558 soles in value; of sugar, 14,538,420 soles; of cotton, 2,360,740 soles; of wool, 2,986,730 soles; of coffee, 3,280,340 soles; of coca, 1,161,720 soles; of cacao, 1,854,300 soles; of rice, 639,080 soles; of borax, 596,370 soles. The values of imports from and exports to different countries in 1900 are given in soles in the following table:

<table>
<thead>
<tr>
<th>Country</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>10,521,400</td>
<td>20,898,690</td>
</tr>
<tr>
<td>United States</td>
<td>1,674,399</td>
<td>4,554,980</td>
</tr>
<tr>
<td>Germany</td>
<td>3,005,900</td>
<td>2,559,000</td>
</tr>
<tr>
<td>Chile</td>
<td>914,180</td>
<td>1,106,300</td>
</tr>
<tr>
<td>France</td>
<td>1,308,970</td>
<td>3,304,960</td>
</tr>
<tr>
<td>Bolivia</td>
<td>68,360</td>
<td>906,510</td>
</tr>
<tr>
<td>Italy</td>
<td>970,750</td>
<td>55,300</td>
</tr>
<tr>
<td>Belgium</td>
<td>728,300</td>
<td>21,250</td>
</tr>
<tr>
<td>Ecuador</td>
<td>55,340</td>
<td>444,080</td>
</tr>
<tr>
<td>Spain</td>
<td>142,010</td>
<td>32,010</td>
</tr>
</tbody>
</table>

Navigation. The number of vessels entered at the port of Callao during 1900 was 497, of 659,314 tons, and the number cleared was 494, of 653,890 tons, excluding vessels under 50 tons, of which 886, of 349,901 tons, were entered and cleared.

The merchant marine in 1900 consisted of 57 sailing vessels of more than 50 tons, having an aggregate tonnage of 29,498 tons, and 5 steamers of 4,253 tons.
PHILIPPINE ISLANDS.

Railroads, Posts, and Telegraphs. — The length of the railroad system in operation in 1898 was 1,035 miles, of which 544 miles were operated by the Peruvian Corporation. The capital cost was $236,000,000 sterling, including lines in the provinces ceded to Chile. Steamboats on the Peruvian Corporation on the Desaguadero river and Lake Titicaca connect with railroads. Receipts from railroads and steamboats in 1901 amounted to $483,827; expenses, $293,089; net earnings, $200,738.

The telegraphs in 1898 had a length of 1,633 miles, of which 1,400 miles belonged to the Government and 533 miles to the Peruvian Corporation. The post-office handled 9,311,856 letters, postal cards, newspapers, etc., in 1896.

PHILIPPINE ISLANDS, a possession of the United States, ceded by Spain in the treaty signed at Paris on Dec. 10, 1898, for military government, was superseded wherever the country was pacified on July 4, 1901, by civil government on a system planned by the Philippine Commission, approved by Judge Willard in Howard Taft, of Ohio, president; Henry C. Ide, of Vermont; Luke E. Wright, of Tennessee; Bernard Moses, of California; and Dean C. Worcester, of Michigan. The police, property, and religious questions were to carry their scheme into effect, and the Government was constituted as follows: Civil Governor-General, William H. Taft; Lieutenant Civil Governor, Luke E. Wright; Secretary of Finance and Justice, Henry C. Ide; Secretary of Commerce and Police, Luke E. Wright; Secretary of Public Instruction, Bernard Moses; Secretary of the Interior, Dean C. Worcester and is not in his judgment necessary for the immediate government of the islands and indispensable for the interest of the people, and which can not without great public mischief be postponed until the establishment of permanent civil government, and all such franchises shall cease on the termination of the temporary government.

A Supreme Court was established, consisting of 7 judges, and courts of the first instance were instituted in 14 judicial districts. A native police force was organized. Provincial government was inaugurated, and the following provincial civil governors were appointed: H. Whitmarsh in Benguet province; Major E. M. Johnson, Jr., in Bicol; Capt. J. M. Goldman in Batan; Col. C. Gardener in Tayabas; Celerino Joven in Pampanga; Capt. Wallis O. Clark in Tarlac; Jose Serapo in Bulacan; Percival Merton in Pangasinan; W. H. Holbrook in Antigua; Hugo Vidal in Capiz; Major Henry T. Allen in Leyte; Capt. A. U. Betts in Albay; Lieut. George Curry in Ambos Camarines; Capt. E. O. Driscoll in Iloilo; Ricardos Paraiso in Marinduque; Prudencio Garcia in Surigao; Manuel Carrales in Misamis; Manuel H. C. Berma in Cotabato.

The provincial governors were ordered to report to Gov. Taft at Manila, who reported to the President at Washington through the Secretary of War. In the autumn of 1899 were 1,039 miles of which 544 miles were operated by the Peruvian Corporation. The capital cost was $236,000,000 sterling, including lines in the provinces ceded to Chile. Steamboats on the Peruvian Corporation on the Desaguadero river and Lake Titicaca connect with railroads. Receipts from railroads and steamboats in 1901 amounted to $483,827; expenses, $293,089; net earnings, $200,738.

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Chinese exclusion act were extended to the Philippines, and since then only former residents and the exempt classes from reports of employers of labor and some of the Government officials depurate their exclusion, against which the Chinese Government has strongly protested. In two years and a half the law went into operation as many as 27,096 were admitted and 23,858 returned to China, showing a net increase of 4,038. The Spanish estimate of their number is shown to have been much too low by a census lately taken in Manila which credits that city alone with a Chinese population of more than 50,000. The Spanish language is known to all educated persons and is the only vehicle of education, since only rudimentary and colloquial English has yet been taught. About 9 per cent. of the people are able to speak Spanish. The masses know only the native dialects of their respective tribes and districts.

Commerce and Industry.—The soil of the Philippines is very fertile, and the parts that have been brought into cultivation produce large crops of rice, corn, Manila hemp, sugar, tobacco, indigo, and cacao. Coconut-palms thrive, and the export of copra is increasing. Cotton was formerly cultivated in large quantities, but this product has been displaced by European manufactures. Large coffee plantations have been ruined by insects. The best tobacco is grown in Luzon and exported in the leaf or manufactured into cheeroots and cigars at Manila. Large quantities are grown also in other islands, and the consumption of the people is large. Cigar manufacture is carried on by the inhabitants of both sexes are smokers. The rice-crop is about 75,000 tons, in addition to which about 50,000 tons is imported annually to supply the needs of the population. Luzon and Mindoro produce the rice and corn; Mindanao and the southern islands the cacao; southern Luzon, Mindoro, the Visayas, and Mindanao the hemp; southern Luzon the greatest quantity of coconuts; and the Visayas the sugar. Gold is mined with profit in the mountains of Luzon, and in this island iron is obtained. In Cebu there is a lead-mines and coal-mines have been opened. Nickel has been found in several islands, but is not utilized. Rice, flour, beer, and wine, textiles and clothing, kerosene, and coal are the principal imports. The exports of Manila, amounting to 190,000 bales of cotton, 335,000 bales of hemp, 25,000 piculs of rice, 1,000,000 piculs of sugar, 450,000 piculs of coffee, 50,000 piculs of tobacco, and 50,000 piculs of copra, are sent to China and Japan. The imports into the United States from the Philippines were $6,971,208 in value in 1900 and $4,420,289 in 1901; exports from the United States to the Philippine Islands were $2,640,449 in 1900 and $4,927,064 in 1901. The imports into the United States from the Philippine Islands in 1900 were hemp for $35,014,740, sugar for $20,928,350, and tobacco and copra for $4,000,000; exports from the United States to the Philippines included beer for $563,950, live animals for $441,850, iron and steel manufactures for $393,350, and coffee for $175,900.

The rainy season sets in late in June and ends early in September. Corn ripens in twelve weeks,
and two crops are grown every year, and one crop of tobacco on the same ground. Manila hemp is a native plant grown in abundance in forest lands. Though other tropical countries are probably suitable for its culture, it is produced nowhere except in the Philippines. The problem of increasing the product does not depend on cultivating more plants, but on extracting the fiber more easily. The hand-machines now used are carried into the hemp forests and worked by three men. The process is so slow that only about a sixth of the plants are cut and stripped into fiber. The fiber deteriorates rapidly after the stalks are cut, and therefore the extraction cannot be carried on at a central factory unless transportation is much improved. From the hemp and from the native pineapple fiber the natives weave handsome light diaphanous cloths, often shot with threads of bright silk, that are universally worn. The pineapple cloths are also exported to Singapore, where the Chinese pay for them high prices. This fiber, too, is extracted by primitive hand-machines. The tobacco of the Philippines is inferior to that formerly grown. No fresh seed has been imported from Cuba in many years, and no fresh seed is given to the selection of seed. David G. Fairchild, sent as an expert to explore the agricultural resources of the islands by the Department of Agriculture, suggests the distribution by the Government of good Sumatra and Havana seed and selected seed of Manila-grown tobacco. Rubber, guava-percha, tea, coffee, and cotton are proposed as experiments. For experiments in the extraction and protection of the valuable timber resources of Mindanao and other islands the methods pursued in Java by the Dutch are recommended for imitation. The hard woods of the Philippines are remarkable for size as well as quality. There are large forests of giant trees, some of them, like the hard dark brown harra wood, 7 or 8 feet thick. Imports were larger during the early period of the American occupation than later. In 1902 they showed no appreciable increase owing to a scarcity of money and the still unsettled state of insular affairs. In 1902 the value of the blockade was first raised the accumulated stocks of hemp and other products were shipped at once, and this temporary movement coincided with a method of the government which produces hemp and copra, and Samar, one of the most important hemp islands, was so disturbed that there was little to export in the early part of 1902, and by the end of the year the hemp had suffered from an influx of Samar rebels. Cebu, which was first pacified, became the most important source of the hemp supply. Sugar cultivation in Panay and Negros was not disturbed. Rice was planted in smaller quantities than usual, and the crop, owing to drought, was unusually light. Agriculture was retarded not only by the impoverishment and disturbance resulting from five years of warfare, but by the loss of a large proportion of the water buffaloes by rinderpest and another epidemic disease peculiar to the islands. From Mindanao the Mohammedan Malays ship hemp, rubber, gums, and other tropical products. The Sulu Archipelago has more trade with Singapore than with Manila, and it is carried on by Chinamen. From Palawan they ship bird's nests and trepang to Hong-Kong.

The total value of imports in 1902 was $32,750,000 in gold, of which nearly half came from Britain. The imports of British imports were $13,750,000, of which the United States $13,750,000 went to British ports. The exports of hemp were 912,349 bales. The export duty on hemp sent to the United States was abolished. Owing to local and temporary causes the exports of sugar, copra, and tobacco declined. The failure of the rice-crop in many districts caused such a dearth of food that the Government appropriated $2,000,000 in silver to buy and transport rice to be sold at cost price in the places most in need. Formerly the Philippines produced a surplus of rice to export to China, but the exports gradually fell off and finally ceased, and of late years large quantities have been imported from Cochin-China, Burma, and Siam to supply the deficiency of the home crops. Tobacco, sugar, and the popular and increasing hemp-crop are much more profitable than paddy planting, which is carried on in most instances on a small scale by petty cultivators who grow little more than is necessary for their own families. The most primitive and laborious methods are used in cultivating, harvesting, and cleaning the paddy. As rice of both the variety grown under water and the upland variety thrives in the Philippines, and there is a great deal of unused land suitable for its growth, it is intended to promote the cultivation by economical methods on a commercial scale so that in thirty years we may ameliorate the food-supply. The great increase in imports as compared with Spanish times is not due to larger production, but to the amount of money put into circulation by the army and the civil administration. Large amounts have been paid out in wages for public works. Wages have doubled, and labor is still so scarce that those who are engaged in private employments have to open their own fields and do the labor themselves. The adoption of Chinese. The natives are considered by some to be too indolent and careless by nature to be suitable for work on a large scale. Others find them honest and industrious. A temporary relaxation of the restrictions on Chinese immigration is under consideration, though in the long run Gov. Taft says that native labor must be depended on. The value of real estate in the centers of population has gone up enormously. Activity in building, especially in Manila, created a demand for native timber. In spite of the depression of agriculture, the price of lumber fell back to 63 per cent. of what it was in 1899, and cholera, reducing the area under cultivation to only half that of ordinary years, the imports of merchandise in the year ending June 30, 1902, exceeded the exports. The trade in 1902 amounted to $2,141,842 in gold. From the date of the American occupation the total imports were $80,135,094, on which over $22,500,000 duties were collected. Gov. Park has left the Filipinos that after two years there would be free trade between the United States and the islands. The United States Supreme Court decided that duties collected in the United States under the general tariff law were illegal and that free trade existed until Congress enacted a tariff to govern the trade relations between the Philippines and the United States. The Philippines tariff bill voted by Congress, which went into force on March 8, 1902, reduces the import duties 25 per cent. on Philippine products imported into the United States and on United States products imported into the Philippines. The export duties on Philippine products shipped to the United States are reduced proportionally by means of a rebate if the goods are consumed in the United States. Germany and Great Britain complained of this reduction as a preferential rate imposed to the detriment of the old-established trade in Manila to $89,750,000, in accordance with the assurance given by the United States. German, English, French, and Chinese have enterprises in the Philippines and have brought much
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additional capital in since the American occupation, but very little American capital has flowed in, although sugar, cacao, and coconut plantations return over cent. per cent., machinery is needed for cleaning rice, hemp and cacao grow wild and go to waste, the vast mineral wealth of the islands remains untouched, steam communication between the islands is a crying need, the forests contain woods capable of a high polish and are as fine in color and markings as any cabinet-woods in the world, there are forests of guuta-percha trees awaiting exploitation, and pearl fishing is an enterprise of great promise into which Japanese and Russians have already ventured. Existing businesses have such need of capital that 25 per cent. is paid for well-secured loans. The new fall in the gold value of silver in 1902 disturbed the external commerce and the internal business situation. The Philippine Government advocates a gold basis. In November, 1902, the Government was compelled to raise the rate of exchange to 250, making the value of the Mexican dollar 5 cents in United States money. A silver currency for the Philippines with a dollar exchangeable at an official fixed rate for half a dollar in gold, like the Jewish Half-Franc, was by Lieut.-Gov. Luke E. Wright, the Secretary of Commerce.

Railroads and Telegraphs.—There is a railroad running northward from Manila through the provinces of Batangas and Laguna, the length of which is 126 miles. The telegraphs have a length of 720 miles.

End of the Insurrection.—At the beginning of 1902 the insurrection was extinguished in all parts of Luzon, the length of which is 120 miles.

The punishment for these various crimes was imprisonment for terms of which the maximum varied from five to ten years. Any person uttering seditious words, or circulating libels or attacking cabals against the Government, or inciting conspiracies or riots to obstruct the execution of the laws or stir up the people against lawful authority or disturb the peace, was made punishable with two years imprisonment; and a term of one year was decreed per persons belonging to secret societies or forming new ones for promoting treason, of sedition, or the promulgation of any political opinion or policy, while every person administering or attending a meeting where oaths were administered binding a person to commit any act inimical to the Government, or containing any incitement to crime, or to disturb the peace, was made punishable with imprisonment for five years. Until the state of war or insurrection should be officially proclaimed to be at an end, it was declared to be unlawful and punishable with one year's imprisonment to advocate orally or in writing or print the independence of the Philippine Islands or their separation from the United States, whether by forcible or peaceable means. Any person having taken an oath of allegiance to the United States who afterward violated the oath was made liable to ten years' imprisonment. The provisions of the law did not extend to the provinces still in insurrection. This law, copied from the United States statute of treason in its main provisions, was in fact as far as any possibility of checking the insurrection by fear of the civil power was concerned. The civil power was not there to inspire fear, but to encourage self-reliance and ideas of liberty, to win the confidence of the natives, and to train them in self-government, a task that seemed hopeless owing to their abject and blind submission to those of their fellows who were by no means a supererogatory, ruthless and cunning race, to compel a superstitious obedience and devotion springing from awe of the superior and dread of the tyrant. It was the army's work to suppress the insurrection, and now when the insurgents were reduced to the guerrilla bands of half a dozen of the most disreputable of the leaders operating still in only four of the five insurrectionary provinces, the Philippine republic was alive with an army in the field. The civil officials and many of the military garrisons were getting on admirably with the Filipinos, whose ready intelligence, friendly and hospitable disposition, and eagerness to become Americanized persuaded the Americans stationed among them that if all Americans treated the Filipinos with confidence and respect and made them their friends all the troubles would disappear. That was not the opinion of the soldiers sent to crush out the rebellion in the disturbed provinces, and the generals who treated the natives with friendly confidence they were liable to be massacred as at Balangiga; that every native who proved his friendship by helping them to capture or destroy the enemy was marked out for murder; that the leading men in the community, who received them with hospitality and professions of loyalty and praised the American system of government which they themselves were sworn officials were at the same time in constant communication with the insurgent leaders; that the rebel bands subsisted on the willing or unwilling contributions of these peaceful Americanized municipalities. They learned from Macabebe scouts and native volunteers ways of extracting information as to the whereabouts of insurgents and hidden arms that were sanctioned by native custom, though not by the rules of civilized warfare. Fighting in the Philippines is fraught with difficulties and terrors. The long and usually bootless marches in mud or dust with insufficient food, the stifling heat, the fever and other tropical ailments unnerve and incapacitate men for dealing with an alert and treacherous sedition which frequently met a sudden surprise or ambush when every one in the detachment was faint with sickness, and never have they run or given up their arms more than they otherwise would have done in the face of an enemy so agile that a boloman could creep up unseen like a snake, spring at a sentry, and
snatch away his rifle; so savage as to mutilate and defile corpses and torture prisoners with fire; so sudden, that only Lumbar could attack by surprise at the most favorable place and moment. Prisoners that small columns of tired and sickly Americans could not take with them, prepared when releas’d fresh attacks from front and rear; so there were batters that took no prisoners. The rebels often raised a white flag to facilitate retreat or a hostile movement, and the white flag had with them no other purpose, hence there were officers who disregarded it. In a few regiments squads were detailed to get information of the enemy by the only means the Spaniards formerly found effective, the infliction of bodily pain and mental terror. When it was suspected at headquarters that the Maccabees and even American soldiers resort to forms of torture, such practices were expressly forbidden in orders; yet soldiers at the front did not always obey. The Military Governor-General and his staff were convinced that sharp and decisive means must be applied to crush out the rebellion, lest it should spread anew. The Civil Governor-General and his staff were of the same mind. The continued impoverishment of the people, the blockade by the rebel leaders, rendered the situation dangerous, and it was known that some of the leading men in Manila and many of the officials in the provinces were doing the worst to keep the embers of rebellion alive in hope of a fresh conflagration.

Gen. Smith was sent to clear Samar, and his order, when by Lumbar’s order the people left the coast towns, that they would return or be regarded as rebels, was approved. A blockade was declared in all the ports of the insurgent districts. Gen. Wheaton adopted the plan of concentration camps in the insurrectionary centers in Luzon to prevent Malvar from getting provisions and recruits, and this also was approved. As soon as the report reached Manila of the massacre and horrible mutilation of 50 unarmed American soldiers at Balangiga by their pretend friends, Gen. Chaaffe ordered Col. de Russy and other officers having troops within striking distance to spread out into instances to chastise the savages. Before Gen. Smith arrived to occupy the island, which had become the stronghold of the rebellion since the pacification of Luzon, Lumbar expected to attack and destroy both and all supplies they could lay hands on. Gen. Smith divided the island into districts, and the commander of each district under his instructions ordered the concentration of all the inhabitants at places designated for their residence, warning those who remained out in the hills with the rebel bands that they would after a delay of fifteen days be regarded as insurgents. In the swamps and jungles of the southern end, the forest and river gorges of the middle and northern plateau, and the precipitous mountains and deep valleys of the coast districts the American columns found Samar the most difficult country to march through they had known, and, weakened by fever and dysentery and the leeches with which the island is infested, they had to meet at every stage an ambush of bolonmen, whose, weapons in the spots they chose to fight were more effective than their own. The soldiers fell into concealed pitfalls upon poisoned spearheads; they were transfixed by spears fastened to bent saplings to be released by tripping against a trailing vine; they were attacked by ladders from the innumerable cliffs upon their boats. When the Samarites attacked they fought desperately, expecting no quarter, as by

Lumbar’s orders they were to give none. Capt. Preston’s detachment of the Forty-third United States Volunteers, was instructed that he could cross the island with a heavy sacrifice of men. Every other column had to turn back. Lieut. Downs and most of his detachment fell in a hand-to-hand encounter after their provisions had given out and two-fifths of the men in his small column were already incapacitated by wounds and disease. Capt. Francis Schoeffel’s party, surprised by bolonmen two to one, had not a man unscathed when Lieut. Lang came to the rescue. Lieut. Wallace’s post of 25 men on the Gandara river, while the commander himself was absent, was rushed at daylight by 200 bolonmen, but they had room to use their rifles, and when reduced to 10 men these had one part of the savages helpless on a point of land and craving mercy while the main body kept up the attack from the jungle. The men, who killed 84 of the enemy during the fight, were exonerated by Gen. Smith for not granting quarter under the circumstances.

Gen. Chaaffe chose energetic and incisive officers to conduct the operations and warned them that they were dealing with a people whose character is deceitful, who are absolutely hostile to the white race, who regard levied by the rebel leaders, rendered the situation dangerous, and it was known that some of the leading men in Manila and many of the officials in the provinces were doing the worst to keep the embers of rebellion alive in hope of a fresh conflagration. Gen. Smith was sent to clear Samar, and his order, when by Lumbar’s order the people left the coast towns, that they would return or be regarded as rebels, was approved. A blockade was declared in all the ports of the insurgent districts. Gen. Wheaton adopted the plan of concentration camps in the insurrectionary centers in Luzon to prevent Malvar from getting provisions and recruits, and this also was approved. As soon as the report reached Manila of the massacre and horrible mutilation of 50 unarmed American soldiers at Balangiga by their pretend friends, Gen. Chaaffe ordered Col. de Russy and other officers having troops within striking distance to spread out into instances to chastise the savages. Before Gen. Smith arrived to occupy the island, which had become the stronghold of the rebellion since the pacification of Luzon, Lumbar expected to attack and destroy both and all supplies they could lay hands on. Gen. Smith divided the island into districts, and the commander of each district under his instructions ordered the concentration of all the inhabitants at places designated for their residence, warning those who remained out in the hills with the rebel bands that they would after a delay of fifteen days be regarded as insurgents. In the swamps and jungles of the southern end, the forest and river gorges of the middle and northern plateau, and the precipitous mountains and deep valleys of the coast districts the American columns found Samar the most difficult country to march through they had known, and, weakened by fever and dysentery and the leeches with which the island is infested, they had to meet at every stage an ambush of bolonmen, whose, weapons in the spots they chose to fight were more effective than their own. The soldiers fell into concealed pitfalls upon poisoned spearheads; they were transfixed by spears fastened to bent saplings to be released by tripping against a trailing vine; they were attacked by ladders from the innumerable cliffs upon their boats. When the Samarites attacked they fought desperately, expecting no quarter, as by
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ized territory of the islands, comprising the parts that are commercially and politically important, which the Mohammedan tribes of the southern islands, where Spain never obtained a firm foothold.

In the event of the insurrection the American public was led to believe from revelations of mistakes and misdeeds of the military in the Philippines that the rebellion had become chronic and the relations between the natives and the Americans more incurably bad than ever existed between the natives and their Spanish masters. Major L. W. T. Waller, who lost a part of his detachment from starvation and nearly perished himself in a march across Samar, was tried by court-martial on a charge of murder for ordering inhabitants of that island to be shot without trial. He pleaded that his action was a just retaliation against the inhabitants of that island who had committed unspeakable atrocities on American soldiers, and, moreover, that he was following the orders of Gen. Jacob H. Smith, which were to kill and burn and make Samar a howling wilderness, treating every male over ten years of age who had not obeyed the proclamation of concentration as an active insurgent. Major W. A. Shattuck, of Lieut. Gen. Otis's staff and the commanding officers of the marines, was acquitted. Gen. Chaffee disapproved the findings as contrary to the evidence.

Major Cornelius Gardener, Civil Governor of Tayabas province, whose reputation was high both as a military officer and as a civil administrator, made a report after a more vigorous military policy was adopted, expressing his opinion that the good government that formerly existed among the people of his province to the United States Government was being fast destroyed and a deep hatred engendered owing to the conduct of the troops, such as excessive burning of barracks in trying to lay waste the country so that the insurgents could not occupy it, the torturing of natives by the so-called water-cure, and other methods in order to obtain information, and the failure of inexperienced lieutenants to distinguish between friendly and unfriendly natives. The troops called all natives "niggers," and treated all humanity would Behide. A committee of the Senate was inquiring into the administration of the Philippines. The attention of the committee was irregularly brought to the Gardener report, which was held in the War Department for investigation, through Gen. Miles, who criticized the campaign in the Philippines for its marked severity. The committee, which questioned Gov. Gen. Taft closely on all Philippine affairs, sent for two discharged soldiers, who said they had seen the water-cure applied, and from them heard a story of the torture being administered to the president of a municipality under the direction of Lieut. Conger and the medical oversight of Surgeon Lyon by order of Capt. Glen. The President gave directions that every violation of law and every act of cruelty and barbarity be investigated in the fullest and most circumstantial manner and the offenders be brought to justice. It was believed at Washington that violations of humanity would diminish and stop if the army was accused of inflicting the water-cure to obtain information of natives who had roasted and otherwise tortured a soldier of their regiment, were tried later in the same case. Cornelius Bowerman, admitted that Father Augustine, a Filipino priest at Banate, had died after the third application of the water-cure, the only death reported from this cause.

The concentration camps established by Brig.-Gen. J. Franklin Bell in Laguna and Batangas were in sight of the American public was led to believe from revelations of mistakes and misdeeds of the military in the Philippines that the rebellion had become chronic and the relations between the natives and the Americans more incurably bad than ever existed between the natives and their Spanish masters. Major L. W. T. Waller, who lost a part of his detachment from starvation and nearly perished himself in a march across Samar, was tried by court-martial on a charge of murder for ordering inhabitants of that island to be shot without trial. He pleaded that his action was a just retaliation against the inhabitants of that island who had committed unspeakable atrocities on American soldiers, and, moreover, that he was following the orders of Gen. Jacob H. Smith, which were to kill and burn and make Samar a howling wilderness, treating every male over ten years of age who had not obeyed the proclamation of concentration as an active insurgent. Major W. A. Shattuck, of Lieut. Gen. Otis's staff and the commanding officers of the marines, was acquitted. Gen. Chaffee disapproved the findings as contrary to the evidence.

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The concentration camps established by Brig.-Gen. J. Franklin Bell in Laguna and Batangas were
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provinces, where Malvar operated alternately, were not scenes of privation or suffering, for the population was better provided for than it had been before, and the mortality was less than in the neighboring provinces. When Malvar’s supplies of source were cut off the native volunteers hunted down his rebel bands, one after the other. Their work resulted in the capture or surrender of 3,500 riflemen and hundreds of storehouses filled with ammunition and provisions. On April 15 Malvar himself surrendered to Gen. Bell at Lipa. A few days later the last of the ladrones in the island of Negros surrendered and took the oath of allegiance. On April 27 Major, now Brig.-Gen., Frederick D. Grant ascended the Gandara with two gunboats, and received the surrender of Guevara, the last of the guerrilla leaders in Samar. This ended the insurrection.

On May 1 the ports of Batangas and Laguna were reopened for trade, and a few days later the ports of Samar. Ladrones were still at large in parts of the Philippines where there were mountains and inhospitable ground. Sporadic murders of soldiers still reflected the fierce hatred of Americans with which many of the natives had been inspired by the teachings of the revolutionaries. For the survivors of the white men, the task of subduing the miserable tribes, however loosely, no longer existed. The Moros of Mindanao were now too few to present any serious danger to the United States. The Moros were pacified by the establishment of a Moro state, with a governor appointed by the United States, and a Moro assembly. The Moros were allowed to retain their religion and customs, but they were required to pay taxes and submit to the authority of the United States. The Moros were also allowed to retain their firearms and ammunition, but they were required to submit to the authority of the United States.

Dattos saying that the authority of the United States must be respected and its sovereignty fully acknowledged. They had always been friendly, and the Moros were regarded as good subjects by the Spanish, and had always been friendly. They had always been friendly, and the Moros were regarded as good subjects by the Spanish, and had always been friendly, and the Moros were regarded as good subjects by the Spanish.
to attain. Brig.-Gen. George W. Davis was placed in charge of operations. When the troops advanced red flags were seen flying from the villages, indicating that the inhabitants intended to fight to the last. Every Datto's house was a fort, with trenches about it, stone walls, and bamboo stockades. There were many Dattos, and therefore many forts, stockades, and intrenched positions to be carried. None of them, however, were strongly defended. Each fort was supplied with one or more old cannon, a few small guns, and many bamboo cannons, and when these responded ineffectually to the shell and shrapnel the defenders retreated safely by covered passages, offering little of the expected hand-to-hand fighting from lurking-places with bolo and spear. The troops advanced cautiously, to avoid traps and surprises, at the rate of 8 miles a day. On entering Bayan near the lakeside, the troops were on the alert. Through Bayan, near the lakes, a large stockaded fort, defended by 300 men, was shelled, but not taken until the infantry rushed the trench. On the shores of the lakes and swamps, rifle fire and the fire of rifles, shotguns, and small arms could be heard in the shrubbery on top, which, covered with grass, could not be stormed without severe losses. The approach was difficult, as the place was surrounded with swamps on the land side, the lakes on the water side, and the dense jungle to bridge so as to besiege the fort. Capt. Pershing at last disposed his men at an effective range. A final summons, with an offer of peace, met without result. Gen. Sumner was sent to the fortress to order the Americans must capture them in fight if they wanted to conquer them. They had sworn that they were willing to go with their people into slavery if the fort could be captured, and that the lives of them alive. The American riflemen and gunners learned to pick out the embrasures and loopholes and the marksman on the walls by watching the puff of smoke. Shrapnel fire, solid shot went through the walls, and shells bursting within the fort rendered the defenders apparently helpless. The siege line was drawn closer, and Lieut. Loring led a storming party off which was called off when an inner lower wall was found on which there were plenty of yells. The bombardment was resumed. The Sultan of Cabutatan made a desultory sortie, and was killed, and all the followers were killed. It is said that the Moros were well supplied with food and water, but the American sharpshooters and gunners killed them off, and on the night of Oct. 2, when Capt. Pershing had brought his batteries up to 100 yards and closed in the infantry lines, those who remained escaped by the usual underground passage. Besides the Sultan there were 7 Dattos and 42 other Moros killed and 50 wounded. The American loss was only 2 wounded. The attempt to form a combination among the rebellious tribes was frustrated by the thorough defeat of the Maciu, though the Sultan of Bacolod still threatened war to defend the religion of Mohamed. Gen. Chaffee transferred the chief command in the Philippines on Oct. 1 to Gen. Davis, who after the return of the column to Camp Vicars ordered Gen. Sumner to delay his intended expedition against Bacolod to see the effect of Capt. Pershing's victory. This effect was marked and instantaneous. The rebellious Moros made professions of peace and offered to furnish provisions and laborers.

Civil Government.—The Philippine Commission reached the conclusion that the only possible method of instructing the Filipinos in methods of
self-government was to make a government partly of Americans and partly of Filipinos, with absolute authority in American hands for some time to come. Even the educated had but a faint conception of civil liberty. In the schools the English language was made the basis of all public instruction, and the pupils were made to learn English. When the normal school was opened for training Filipino teachers, 900 pupils were enrolled at once. In the night schools 10,000 adults sought instruction. Young Filipinos were instructed in telegraphy so as to take over the telegraph service from the army. Manual training-schools and agricultural colleges were a part of the plan of education. The people of the islands were found by the Philippine Commission to be divided into three parties: one opposed entirely to the American occupation; one favoring the established government; and one, larger than both the others and composed of the ignorant mass, which was indifferent and would support any government able to restore order and tranquility and protect the people from violence.

The Federal party asked for amnesty for political offenders and the organization of local and insular government on a basis partially popular and partially feudal, to have the chief executives of the executive and legislative departments in Washington by two or three delegates. This party, which was composed of the majority of the educated people, was bound forward toward statehood or to political independence. Its leaders proposed to impose higher restrictions on the provincial franchise than those adopted by the Philippine Commission. The party was an efficient ally of the Government in procuring the submission of insurrectos and the pacification of the country. Wherever the Philippine Commission went the Federal party prepared a favorable reception.

The other active party, the one opposed to American rule, was the Conservative party, composed largely of Spanish mestizos, and having the most sympathy for the Spanish clerical hierarchy that was obnoxious to the Filipinos in general. This party was in favor of peace as well as the Federal party, and the great party that desired the Federal party's executive and political vote.

The Conservatives wished to establish an independent native government with an American protector. The Philippine Islands, owing to the influence of the friars and Spaniards owning large haciendas, had no land tax in Spanish times. The American Commission imposed one, which encountered some opposition at first. The yield can only be small at first, because out of 65,000,000 acres of agricultural land in the Philippines only 5,000,000 acres belong to private owners.

The sanitary measures taken at Manila practically stamped out the plague, which caused 20 deaths a week at the beginning of 1901, but not more than 3 on the average at its close. Smallpox is endemic in the Philippines, and vaccination was made compulsory. Beriberi, another endemic disease, has been studied with a view to curbing its propagation. A plan was formed for isolating the lepers, of whom there are believed to be 60,000 in the islands. In 1902 an epidemic of cholera raged in many towns and districts and caused fearful mortality.

On July 4, civil government was proclaimed throughout the Philippines, excepting in the southern islands of the Moros, according to the bill passed by Congress. Gen. Chaffee's powers as Governor-General were extended and he became merely commanding general of the military division of the Philippines. The Philippine Government remained under the absolute direction of the President and received instructions from the War Department. The military government was inaugurated at Laguna on the same date, completing the establishment of local civil rule throughout the civilized parts of the archipelago. The pacification was proceeded with, and the acceptance of American authority universal. The army was reduced to 27,000 men. Its duties were confined to police work, except in the Moros country, and it was expected to replace it eventually by a native constabulary. On July 4 a proclamation of the President announced that peace had been established and offered amnesty to all who had participated in insurrections against Spain or the United States or had been guilty of treason, sedition, or any other political crime. Pardon was granted even for acts in violation of the rules of civilized warfare in the belief that they were committed in ignorance and under orders of the revolutionary leaders, but not for such acts committed after May 1, nor for murder, rape, arson, or robbery. Those held for these crimes at common law were promised such clemency as would be consistent with justice and humanity. To political prisoners and all who had committed political crimes the only condition of pardon was that they should subscribe to an oath recognizing the authority of and assuming allegiance to the United States. Aguinaldo and the other officers of the revolutionary junta and insurgent leaders who were in confinement took the oath and were set at liberty. The prisoners in Guam were brought back in September. In the autumn ladrones from Luzon seized some active in the provinces of Cavite, Rizal, and Bulacan. In Tayabas a leader named Rios with 150 bolosmen attacked a town, and the constabulary, after driving them away, arrested 700 persons who were suspected of complicity with Rios, who claimed to be divine and immortal. In Samar the American constabulary suffered from attacks of robbers. Ladrones bands gave trouble to the constabulary in the vicinity of Manila. In Cavite a leader named Felixardo had a large following. There were several bands of from 200 to 300 in the provinces affected.

The Question of the Friars.—Spanish regular priests were, under the Spanish régime, the actual rulers of the island, the only representatives of authority with whom the Filipinos came in contact, and it was against their rule that the successive revolutions were directed. It was because their vested rights were reserved by the treaty of Paris that the insurrection against American authority gained such rapid headway and became general. These monks, through gifts and bequests and Government grants and by confiscation and expropriation in various ways, had, in the course of ages, acquired, and their missionary work had made them, in part of the best lands. When the insurrection broke out they fled to Manila for safety. The
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The great majority of the secular priests were naves, but the majority of the Philippine priests, all those to whom an endowment or a Government stipend of any value was attached. During the missionization the native priests, some of whom were active leaders in the revolution, settled themselves in the vacant living. After the establishment of civil government under American auspices a large number of them, choosing Father Aglipay, one of the chiefs of the revolution, for their bishop, organized what they called an Independent Catholic Church, independent of Rome, because the Curia sustained the Spanish hierarchy and monastic orders in the Philippines. Negotiations proceeding between Gov. Taft and Mgr. Guidi for the transference to the Government of churches and the determination of what part was Government, and what monastic property of the schism interrupted these negotiations, and at the beginning of 1902 led the apostolic delegate and the archbishop to appeal to the Governor-General to take the necessary steps to stipulate, that the churches, having been built by public subscription and gratuitous labor, belonged to the people of the different towns, who had seceded from the Roman Catholic Church, and had formed the Independent Catholic Church. Gov. Taft considered that it was not a function of the executive, but of the judiciary, to settle the controversy, and declined to act upon the suggestion. The Dismissal of the Church authorities unless they appealed to the courts and obtained decrees affirming their legal ownership and rights in the disputed property. The Filipinos were not actuated by any desire to abandon the Roman Catholic faith, although some of them at one time spontaneously launched a Protestant movement which, had, however, no religious basis. Their object was not to be placed again under the authority of the Spanish monks. In June Gov. Taft went to Rome to arrange a settlement of the question with the Vatican. He presented a commission of cardinals appointed for that purpose, and a proposition of the United States Government to purchase the lands held by the friars in the Philippines at a valuation to be fixed by two commissioners representing the United States. The proposal was accepted by the Vatican, and one to be nominated by the Vicerey of India. These estates are believed to have a value of about $10,000,000. In return for this offer the Pope was asked to recall from the Philippines within two years the friars of the Dominician, Franciscan, Augustinian, and Recoleto orders. The Vatican did not see the way to the recall of the friars within a fixed time because their rights were guaranteed by the treaty of Paris, and such action on its part in the absence of force majeure would bring the Holy See into conflict with Spain; further, there it would be equivalent to opening themselves with religion only, leaving politics alone. While willing to agree to the elimination of friars from parishes where they are really obnoxious, the Vatican trusted that the American authorities would not permit any to be kept from their religious missions by factional minorities. Secretary Root could not see how the recall of the friars by the United States would affect the interests of their Church could violate the engagements of the United States to Spain, or how the interest of the United States in restoring religious peace for the welfare of the clergy and the faithful, with that of the Vatican in retaining them as faithful Roman Catholics. He pointed out that the United States sought not a forcible, but a voluntary withdrawal of certain persons who happen to be Spaniards and whose previous experiences in the islands had fortuitously thrown them into antagonistic relations with the people, the Catholic laity, and the native clergy. Many of them had left their parishes, and could not be reinstated without using material force, which the United States could not permit. Their voluntary recall by their religious superior in the interest of the whole people of the Philippines, who were bitterly opposed to their presence, which was the only motive the United States as well as the Holy See could have, would not be a violation of the treaty of Paris and could not be regarded as affirming or admitting any accusations against the friars, because the American Government made no such accusations. Besides the purchase of lands held by the religious congregations or their representatives at a price to be fixed by a tribunal of arbitration the United States offered to settle by indemni ties agreement or arbitral tribunals, to which the Vatican was a party, all claims and controversies of the charitable institutions and public trusts would be divided, by arbitration if necessary, between the Church and the Government according as their character or origin was of a nature to be determined by the ecclesiastical or the civil authorities. Cardinal Rampolla accepted the offer for the purchase of the monastic estates, suggesting that the fifth commissioner to appraise their value be selected by the four others. This offer was withdrawn, since the main proposal, that of the gradual withdrawal of the friars within two years, was rejected. Gov. Taft left Rome to continue the negotiations later with the apostolic delegate to be appointed to Manila. The money that the United States may pay for the friars' lands and for indemnities is very necessary to the Church in the islands, as the Philippine Government does not pay stipends to the clergy, as it did under the Spaniards, when every friar in charge of a parish received from $600 to $1,500 Mexican. Secretary Root requested the Vatican to send to Manila lists of the property claimed as belonging to the Church and to the religious congregations, with proofs of title. The lands formerly controlled by the friars are now tenanted by Filipinos, who no longer give any returns to them in rent or services. A small number of friars have remained in their parishes and continue to minister acceptably to the Filipinos. The Church authorities were asked by Mr. Root to furnish full and definite lists, first, of the property the congregations claim to own and desire to sell, with the precise relations they hold to the title second, of details of damages done by troops to churches and convents, and of indemnities claimed, third, of Church properties to which formal title remained in the Spanish Crown at the time of its cession, fourth, of charitable and educational trusts which it is said devolve on the Church rather than on the state.

PHYSICS, PROGRESS OF, IN 1902. Cosmography.—S. Ahrrenius, in Archives Néerlandaises, 6, 1901, endeavors to infer from natural laws that the universe has continued essentially unchanged for an authority. He says that it will so continue indefinitely in the future. He shows that for the bulk of existing gaseous matter
contraction to one-eighth of its volume, with correspondingly increased pressure, will initiate a loss of heat by radiation, and the gas will constrict to rise in temperature. If the pressure increases more rapidly than in the ratio of 16 to 1, a second stage will be reached in which the mass will be cooled by contraction. With hydrogen and nitrogen, Amagat has shown that this will occur (at pressures of more than 230 to 300 atmospheres) at about 17° C. The densities of the nebulae are much less than this, so that if they lose heat by radiation, their temperatures will increase more rapidly, and therefore, conversely, the communication of heat from outside will cause cooling accompanied by expansion. This expansion would continue indefinitely if it were not for comets and meteorites. When new stars begin to form a solid crust, the loss of energy will fall suddenly, and this third stage will therefore continue indefinitely. With bodies in the second and third stages collisions will give rise to explosive outbursts of gases, and there would form spiral nebulae. The author points out that there will be practically no dissipation of gravitational energy during expansion, and none through ordinary chemical dissociation. There will be dissociation, however, in photospheric regions at great distances from the surface of the earth, and the series of changes may go on without interruption. The average period of the cyclical changes is on the increase, so that the quantity of nebulous material in existence must continually become greater, while that of the stars must correspondingly decrease.

Properties of Matter, etc. Gravitation.—V. Wellman (Astrophysical Journal, May) attempts to explain the Newtonian law of gravitation by supposing a gaseous ether of extreme tenuity, whose particles possess velocities approaching that of light. On this supposition gravitation must be modified if the attracting masses are in relative motion. The modifying factor involves the velocity of the ether particles, which the author assumes to be equal to that of light in vacuo. The resulting "gravitation factor" agrees with the constant of Gauss so closely that "a mere accidental coincidence of the two values is out of the question, and a causal connection between light and gravitation seems to be expressed in the figures." The distribution of what the author calls "gravitation matter" is discussed by Lord Kelvin in a British Association paper (Nature, Oct. 24, 1901). Ether, according to Lord Kelvin, is matter, but not gravitational matter, because if it gravitates it must be infinitely incompressible, which to the author appears improbable. It is assumed that the Newtonian law of attraction between masses of gravitational matter holds throughout infinite interstellar space. The author considers it probable that there may be as much matter as a thousand million suns within a sphere of radius 3.09 × 10^{18} kilometers (the distance at which a star's parallax is 0.001 of a second), because, if uniformly distributed at rest throughout such a space, twenty-five million years ago, they would have now acquired, by mutual attraction, velocities comparable to the present velocities of the stars. Kelvin also states that if all the matter in the universe were, at a certain epoch, at rest, and uniformly distributed, there would be a tendency for the densities to become more unequal, solid bodies would ultimately form, and there would be collisions, giving rise to waves in ether, carrying energy according to the law of the square of the distance. The origin of meteoric stones is attributed to this kind of cooling.

The Ether.—Hopkinson (Philosophical Magazine, January) argues that optical and other terrestrial phenomena, such as the grating of an ether, is the exception, to give any logical non-metaphysical basis for postulating the existence of an ether. This one exception is the fact that, according to the unidulatory theory, the aberration of a star depends on the motion of the earth relative to the free ether, and is entirely unaffected by the motion of the star, which, if capable of experimental proof, would give such a logical basis. Certain stars, the so-called "spectroscopic binaries," appear single when viewed through a telescope, but are inferred to consist of two components because of the periodic doubling of lines in their spectra. This would occur, owing to the Doppler effect, when one component of the system is moving toward, and the other away from, the earth. If the motion of the components affected their aberration, then, when moving as above, there should be a lateral separation between the components as seen in a telescope, resulting in a periodic doubling alternating with the separation of the spectroscopic lines. The fact that no such doubling can be detected affords, in the author's opinion, evidence that the aberration is unaffected by the motion of the star and gives a logical basis for postulating an ether.

Molecular Fields of Force.—S. Leduc (Comptes Rendus, Feb. 17) has attempted to explain a number of phenomena by applying the concept of fields of force to molecular movements in liquids. When a drop of any aqueous solution falls into distilled water the dissolved molecules diffuse in all directions and water moves in a definite direction to replace them. The drop is then the seat of a field of force, the directions followed by the moving molecules being the force lines. A similar but inverse field is established when a crystal forms in a solution. By retarding the molecular movements by a colloidal such as gelatin, and drying the liquids rapidly, photographs of the molecular fields of force have been obtained, exhibiting also interference between fields of force of diffusion, or between fields of force of diffusion and crystallization.

Mechanics. Pressure of Vibrations.—Lord Rayleigh (Philosophical Magazine, March) gives several examples to show how the energy of a vibrating system may be drawn off and converted into other forms of energy. For example, a string is attached at its upper end to a vertical axis, and a ring slides over the axis, including the upper part of the string, the lower part being free. To the lower end is attached a pendulum, which, when set swinging, tends to force the ring upward, any work done in raising it being at the expense of the vibration energy. By mathematical calculation it may be found that raising the ring to an infinite distance would exhaust the whole energy of vibration. The author raises the question whether an analogue of the second law of thermodynamics can be found in the general theory of the pressure of vibrations, but does not give, apparently, a final answer.

Measurements of Minute Masses.—E. Salvioni (Nuovo Cimento, May) has devised a microbalance, made of a thin thread or ribbon of glass or other material, fixed at one end. The device is placed in a closed case, which also contains small weights (the latter of platinum, the former of silk thread), which can be placed on the flexible thread or ribbon. The bending of the loaded thread is observed with a micrometer, and appears to be proportional to the energy. The original 10 centimeters long and one- to two-tenths of a millimeter in diameter will thus support a weight
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of more than 100 milligrams, and will serve to weight to one-thousandth of a milligram. The balance is arranged in such a way as to maintain the flexure after unloading. The loss of weight of musk by volatilization is clearly demonstrated by this instrument, which shows it to be proportional to the time.

Density.—G. Guglielmo (Atti dei Lincei, Dec. 1, 1901) describes a balance used under water to determine densities. As the weight in water can be made small, the friction on the knife-edges is small, and these are, moreover, lubricated by the water. The balance is thus of extraordinary delicacy, and the error due to surface tension on the suspending wire is also avoided. The balance arm is of glass, with a central bulb to give the whole suitable weight. The knife-edges of the ordinary balance are replaced by points resting on planes.

Strain.—L. Caillélet (Comptes Rendus, Feb. 17) notes that a thick coating of strong glue spread upon glass splits off when it dries, pulling with it thin layers of the glass and leaving a decorative curved pattern, especially if crystaline salts are added to the glue. A cylindrical vase of thin glass so treated will split into a hemicylinder, and a thin wire wrapped upon it, and placed in direct sunlight, show the contractile strain to which it is subjected.

Torsion.—Coker (Edinburgh Royal Society, Nov. 12, 1901) has studied turned steel bars about one-half inch in diameter, under torsion, together with tension and bending. Such experiment has generally been limited hitherto to wires. According to the usual theory, if the material changes from the elastic to the plastic condition at the yield-point, the maximum torque which the bar will stand, when it is all plastic and subject to the same shearing stress, is four-thirds the value at which the first marked deviation from perfect elasticity occurs. With an iron bar, the deviation occurred at 375 inch-pounds and failure at 825 inch-pounds, the ratio being 1.4; a steel specimen gave 675 and 870, a ratio of 1.29. The phenomenon of breakdown and subsequent recovery from over-strain is similar in torsion to that in tension, such as the stress-strain curve at 104° C, having a marked effect in promoting the recovery. The experiments demonstrate that the limits of elasticity do not remain in their original positions; it is rather, beyond the elastic limit in one direction reduces the other limit to zero. The theory that a twisted bar is twice as strong to resist torsion in the same direction as in the opposite one is not borne out by experiment. As for the effect of tension on torsion, a tension within the elastic limit, and tested by twisting beyond that limit, its yield-point was considerably lowered, and the effect was to give the bar a permanent set in bending under the same moment to which it had previously been elastic.

Cycloidal Motion.—J. Aitken (ibid., 40, 1, 1901) notes that vortices will not occur either in air or water unless the velocity is at least as great as well as low pressure. Otherwise the fluid will flow toward the low-pressure center radially. This may be illustrated by emptying a basin of water from an orifice at its lowest point. In water vortices so formed there is a great increase in velocity near the center. The resistance of

federed in the case of a cyclone by the spirally moving air enables the latter to develop more energy than if the air remained in a straight line, and as the retardation causes a fall of pressure, and the energy of the cyclone is increased.

Liquids. Solution.—Friedländer (Zeitschrift für physikalische Chemie, Oct. 1, 1901) has observed certain peculiarities of partially miscible liquids near the critical point, using chiefly mixtures of water and isobutyric acid. The temperature coefficient of internal friction increases very greatly in the neighborhood of the critical point, not only with these substances, but also with mixtures of phenol and water, and with benzene, water, and acetic acid. Precisely similar results were obtained on studying the opalescence or milkiness that appears when such mixed liquids are cooled near the critical point. In mixtures of isobutyric acid and water the opalescence reached a maximum of 60 units for a critical mixture 0.04° C above the critical temperature, and falling to 4.5 units at a temperature 1° above. The density, coefficient of expansion, electrical conductance, and refractive index of the solutions, however, change continuously in the neighborhood of the critical point, and do not exhibit maxima or any other abnormal properties. The results obtained were consistent with the idea that the close approach of two molecules of different species tends to cause them to enter each other's domain. When two different liquids are brought together, it is found that the molecules of the one are not attracted to the molecules of the other as the temperature is raised, but remain separated. This separation is the result of the interaction of the forces of attraction between the molecules of the two liquids, and is well known as the phenomenon of intermolecular attraction.

Waves.—W. G. Fraser (Philosophical Magazine, October, 1901) has sought to explain the fact that large waves instead of being reflected at an obstacle, as we are used to the idea of, and all waves should be, according to theory, break into spray. His explanation is that the vertical component of velocity is checked by the obstacle, which tends to produce a lift, but the horizontal component of density, and finally breaks, for deep waves with direct incidence it is found that cohesion will prevent rupture up to the ratio of the amplitude to the wave-length is small. In the case of oblique incidence not only the vertical component of velocity, but also the horizontal component parallel to the obstacle is checked, and this somewhat lessens the liability to break.

Composition.—O. F. Stradling (Franklin Institute Journal, October, 1901) elaborates Röntgen's theory that water contains two kinds of molecules, which he designates "ice molecules" and "molecules of the second kind." This has already been worked out quantitatively by Sutherland, and promises to explain many points in which water behaves as a liquid of unknown maximum density at 4° C; the minimum of compressibility at 63° C; the decrease by increasing pressure of the coefficient of thermal expansion; the lowering by increased pressure, and by dissolved salts, of the temperature of maximum density; the influence of pressure and temperature on its viscosity; the decrease of volume in preparing aqueous solutions; and the low specific heat of solutions as compared with water. The author says: "Not only in the matter of solutions, but in other more strictly physical relations, it is a misfortune that the role of the typical liquid was assigned to water."

FLOWS.—H. T. Barnes and E. G. Coker (Physical Review, 12, 1901) have continued the investigations of the former author on the flow of liquids. Barnes showed that if water be heated while flowing through tubes in parallel stream-lines, the distribution of heat is not uniform; where the heat is applied to the outer motion as well as low pressure. Otherwise the fluid will flow toward the low-pressure center radially. This may be illustrated by emptying a basin of water from an orifice at its lowest point. In water vortices so formed there is a great increase in velocity near the center. The resistance of
be sharply determined by placing the bulb of a sensitive mercury thermometer in the water just as it emerges from the tube; when the motion becomes anisous, even for an instant, the mercury column shoots up.

**Surface-Tension.**—The surface-tensions of mixed liquids, measured by W. H. Whatmou	ogh (Zeitschrift für physikalische Chemie, Decemb. 5, 1901), who has made his measurements by determining the pressure necessary to drive a stream of air-bubbles through a capillary point immersed in the liquid. He finds that under certain conditions the method is capable of exceedingly great accuracy. This experimenter was unable to confirm the results of Quincke and Hammack, who found a difference in the surface-tension of freshly prepared solutions and those that have been kept some time. The maximum deviation observed by Whatmough after twenty-four hours in six days and was only 0.1 per cent. Mixtures of sulfuric acid and water were found to exhibit a remarkable maximum of surface-tension at 40 per cent. H₂SO₄, corresponding with a minimum of compressibility. Minima occur in mixtures of acetic acid with ethyl iodide, carbon tetrachloride, benzene and chloroform, toluene, xylene, and other mixtures of hydrocarbons.

A. Jonschke (Moscov Imperial Society of Natural History, Bulletins 1 and 2, 1901) has tested the law that the product of the internal friction of a liquid and the third power of the absolute temperature is a constant. He finds that the relation holds with a large number of substances, including bromine, nitrogen-dioxide, most halogen derivatives, and certain aldehydes and esters. He concludes that it is due to an equilibrium of the uncondensed and condensed states, and that the boiling-point in general does not obey the law. P. Duhem (Comptes Rendus, May 12) defines a fluid as a body, each element of which is in a state completely defined by the temperature and the density. Within an incompressible fluid the virtual work of viscosity is zero, and a fluid is rigorously fluid and rigorously incompressible, it must be considered devoid of viscosity. All viscous fluids are compressible. The author shows that the laws of motion of a viscous fluid differ from those of a non-viscous only in that they represent the unknown in an equation such as between the pressure, temperature, and density, such relation being replaced by a differential equation. For a compressible fluid the density at any point is the function of the pressure, temperature, and density at the point, and the equation of the equilibrium of the fluids is derived from the equations of the change of state. Double refraction and dichroism are properties of the turbid liquids and not due to solid particles, and the author believes that surface-tension is the determining factor. The droplets are not analogous to crystals. He prefers to term them simply birefringent and anisotropic liquids. P. R. Heyl (Physical Review, February) has inquired experimentally whether electrostatic stress might not alter the interfacial angles and density of crystals formed under its influence. Mercurel iodide, a salt sensitive to slight mechanical disturbances, was employed as an indicator, but no effect was found. Hence any molecular forces called into play in a solution under electrostatic stress are not comparable with the forces of crystalline attraction.

**Hydrostatic Pressure.**—W. Ramsay (Archives Néerlandaises, 6, 1901) describes an attempt to determine whether fine-grained particles, having incessant pedestrian motion in a liquid, exert hydrostatic pressure. His method was to determine the density of a colloidal solution in water first by a hydrostatic method, and then by the pyknometer, and to give a higher value, and although the difference is so small as to be comparable with the errors of observation, the author concludes that the particles by their impacts on the sinker exert hydrostatic pressure.
Gases. Boyle's Law.—Rayleigh (Philosophical Transactions, April 12) used for experiments on substances to find Young's modulus for liquid expansion thermometers for temperatures as low as the boiling-point of liquid air. Petroleum ether was finally adopted, but as it is scarcely a definite substance, it is not altogether satisfactory. The ether used was distilled from a commercial sample boiling at 33°. C. The authors compare petroleum thermometers with platinum thermometers, and tabulate the deviations at different temperatures on different days. O. Lummer and E. Pringsheim (Physikalische Zeitschrift, Dec. 1, 1901) find that the radiation laws can be made serviceable for temperature determinations, furnishing a new temperature scale, which is identical at low temperatures with the usual gas thermometer scale, but can be utilized at much higher temperatures than the method of the gas thermometer permits of. F. Kurbaun (Physikalische Zeitschrift, Feb. 1) employs an optical pyrometer devised by Holborn and himself to measure the temperature of flames. An image of the flame is formed on the filament of a glow-lamp, and the latter is heated by a current until it ceases to be visible through red glass. This method gives lower estimates of temperatures than that of Houtermans and Pringsheim's (for example, 1,431° C. for a candle instead of 1,585°). It can only be employed when the luminous carbon particles in the flame have escaped through the glass. A. Job (Comptes Rendus, Jan. 6) describes a method of utilizing the viscosity of a gas in thermometry—a suggestion due to Barus and Callender. A 15-per-cent. solution of zinc chloride in water in a bulb whose stopper is three holes—two for electrodes, and one to allow electrolytic gas to escape. This gas passes through a fine porcelain tube, in which lies a platinum wire. If the tube is placed in a furnace, the viscosity of the gas decreases and the volume escaping increases. The relation between the temperature and the pressure of the gas on entering the porcelain tube is a linear one, and the former can therefore be ascertained by reading the latter by a sensitive manometer, calibrated by comparison with a known thermometer.

Heat. Thermometry.—L. Holborn (Annaalen der Physik, October, 1901) has examined various substances to find Young's modulus for liquid expansion thermometers for temperatures as low as the boiling-point of liquid air. Petroleum ether was finally adopted, but as it is scarcely a definite substance, it is not altogether satisfactory. The ether used was distilled from a commercial sample boiling at 33°. C. The authors compare petroleum thermometers with platinum thermometers, and tabulate the deviations at different temperatures on different days. O. Lummer and E. Pringsheim (Physikalische Zeitschrift, Dec. 1, 1901) find that the radiation laws can be made serviceable for temperature determinations, furnishing a new temperature scale, which is identical at low temperatures with the usual gas thermometer scale, but can be utilized at much higher temperatures than the method of the gas thermometer permits of. F. Kurbaun (Physikalische Zeitschrift, Feb. 1) employs an optical pyrometer devised by Holborn and himself to measure the temperature of flames. An image of the flame is formed on the filament of a glow-lamp, and the latter is heated by a current until it ceases to be visible through red glass. This method gives lower estimates of temperatures than that of Houtermans and Pringsheim's (for example, 1,431° C. for a candle instead of 1,585°). It can only be employed when the luminous carbon particles in the flame have escaped through the glass. A. Job (Comptes Rendus, Jan. 6) describes a method of utilizing the viscosity of a gas in thermometry—a suggestion due to Barus and Callender. A 15-per-cent. solution of zinc chloride in water in a bulb whose stopper is three holes—two for electrodes, and one to allow electrolytic gas to escape. This gas passes through a fine porcelain tube, in which lies a platinum wire. If the tube is placed in a furnace, the viscosity of the gas decreases and the volume escaping increases. The relation between the temperature and the pressure of the gas on entering the porcelain tube is a linear one, and the former can therefore be ascertained by reading the latter by a sensitive manometer, calibrated by comparison with a known thermometer.

Radiation.—Compan (Comptes Rendus, Nov. 18, 1901), in order to investigate the laws of radiation at low temperatures, experimented on the cooling of a ball of copper 2 centimeters in diameter, blackened and of maximum emittance, suspended in a glass globe, the pressure in which could be increased or diminished at pleasure. The vacuum in the globe being first of all pushed to its extreme limit, the ball was heated without removing it by projecting on it, by means of a lens, the positive crater of an electric arc. In this way its temperature could be raised above 320°. The globe was plunged in a freezing mixture, and the rate of cooling was measured thermoelectrically with different ranges of temperature between 302° and 182.5°, the values obtained being compared with the formula that expresses the laws of Dulong and Petit, of Stefan, and of Weber. The first of these laws was found to apply only from 0° to 200°. That of Stefan agrees fairly well from the temperature of liquid air up to 302°, yet it is somewhat too high above 150°. Weber's law applies well only from 100° to 302°.

Mechanical Equivalents.—H. T. Stieltjes (Electrician, 42, p. 969, 1900) has redetermined the mechanical equivalent of heat by imparting electrical energy to a constant stream of water, so as to give a steady difference of temperature at its ends. He finds the equivalent to be 4.1876 joules—a result about 0.132 per cent. higher than that reported in connection with water at the temperature of the air.

Decimal Musical Scale.—A. Guillemot (Comptes Rendus, April 29) proposes to replace the octave and the comma (the usual large and small units of interval) by the savart and the millisavart, defined as follow: The savart to be the interval 101; 1 (2 octaves and a major third) and the millisavart the thousandth part of this (approximately 435 to 434). With these units all calculations will be much simplified. The tempered scale is very nearly 25 millisavarts, and the millisavart, although not appreciable directly by the ear, may be easily apprehended by the beating, at the rate of one per second, of the notes 434, 435, and 436. The equivalent is about 0.1876 joules—a result about 0.132 per cent. higher than that reported in connection with water at the temperature of the air.

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nolds and Moobey obtained by direct mechanical measurements applied to the electrical component of the force of the Clark cell, to which the electrical measurements were referred.

Relation between Temperature and Pressure.—According to the hypothesis of Poynting and Oesewald, this relation for a two-phase one component solid-liquid system varies according as the melt can or can not flow freely away. Thus, according to these views, ice will melt, provided the water can escape, at much lower pressures than those corresponding to its ordinary pressure-temperature equilibrium curve. G. Tammann (Annalen der Physik, December, 1901) tests these views by measurements of the plasticity of ice, phosphorus, naphthalene, and piperine, and states that the hypotheses above mentioned are untrue. Writing concerning this plasticity, he shows, by the method of the rotation to be slightly at each instant the distance between the center of the revolving mirror and the image formed by reflection, but not at the point of focus in which this image lies. As regards (2), he calculates the velocity with which the beam traverses the fixed mirror, and maintains that, even if much greater, it would not affect the distortions of reflected rays. As regards (3), the author maintains that as the vortex is symmetrically distributed round the axis of revolution it will not tend either to advance or retard the incident or the reflected beam. A. A. Michelson (Philosophical Magazine, March) discusses the accepted values of the velocity of light, the ratio of which may be explained on the assumption of Hertzian waves, and concludes that new determinations are necessary for accuracy. A new method free from the drawbacks of previous ones would be virtually a combination of the Foucault and Fizeau methods. Light passes from the slit through a lightly silvered glass-plate and a lens and falls on the upper half of a revolving mirror. It is reflected to a grating which reflects to the lower half of the mirror, and then passes by way of a lens to the distant mirror. The author hopes that the velocity may thus be measured to within about 5 kilometers per second.

Absorption.—G. E. Hale (Astrophysical Journal, April) believes that selective, like general absorption, is a function of wave-length. In his photographs of the spark spectrum of iron in water the reversals first appear at the more refrangible end of the spectrum, and as the conditions become more favorable, lines of greater wave-length are reversed. Similar results were obtained with other metals. This is interesting in view of Campbell's discovery that in the spectra of certain stars the ultra-violet lines of hydrogen are dark, while those of greater wave-length are bright, which may be explained on the assumption that the law of selective absorption resembles that of general absorption. E. Hagen and H. Rubens (German Physical Society, March 7) have examined the infra-red, visible and ultra-violet rays from an arc lamp, before and after interposition of chemically deposited metallic films, by means of a special spectroscope. For equal thicknesses of gold is the most transparent to visible rays, platinum the most absorbent. At its maximum transparency silver is 1,200 times as transparent as platinum. The sequence of the metals as regards absorption is the same as for electric conductivity. R. S. Clay (Royal Society, London, Nov. 8, 1901) finds that in the production of color by successive absorption, the loss of light proceeds by geometrical progression, not by successive subtraction. This, he says, is important in "process" three-color printing, where the inks are always printed full strength, and the tint is regulated by the size of the dots. "It is practically impossible to control the relative placing of dots of different colors. This will be immaterial if the spectral absorption regions of the three inks do not overlap, but if they do overlap, then where dots of different colors coincide there will be blackness, and the coloring will only be correct if the dots fall clear of one another. Further, suppose that through abrupt absorption are the colors that will finally be purer, and that variation in the amount of ink from impression to impression will not be so important, thus avoiding a great practical difficulty." To make the luminosities balance, Mr.
Clay finds that the absorption band of the green-absorbing ink should be a good deal narrower than the region covered by the green sensation. Thus the units of the inks will not be truly complementary to the three-color sensations.

**Spectroscopy.**—E. L. Nichols (Physical Review, August and September, 1901) has compared the visible radiation from incandescent carbon-rods in vacuo with the radiation from an acetylene flame, by means of a spectrophotometer. Since the radiation in both cases is from incandescent carbon, it was anticipated that similarity would be found in the two spectra. This anticipation, however, was far from being realized. The distribution of energy in the spectrum of the carbon rod, instead of approaching that of the acetylene flame, as the temperature of the rod is increased, assumes an entirely unexpected character. Even at low temperatures the change in the spectrum is not simple, and after passing 1,160° the energy in the yellow, which from the beginning increases at a relatively more rapid rate than either the red or the blue, becomes unexpectedly great. G. Laubenthal (Annalen der Physik, April 8) has measured the bands and plotted them in the absorption spectra of the lakes formed by alkanonin and certain metallic salt solutions. In each of the two groups studied the bands shift toward the red with increasing atomic weights, in such wise that the ratio between the wave-lengths of the two bands of each spectrum is constant for each group of metals. If the wave-lengths of the absorption bands are plotted against atomic weights, the curves have almost identical shapes with those given in Ramage’s paper on the emission spectra of the same groups of metals (London Royal Society, May 15). In both there is a break between sodium and potassium, and probably a similar break in the beryllium to calcium curve. This is interesting as correlating absorption spectra with emission spectra, and also the densities and melting-points, as having their origin in the same fundamental cause. J. Jeans (Philosophical Magazine, November, 1901) advanced the view that the structure of molecules and atoms to explain the phenomena observed in the spectroscopy. If each vibrating element of a gas were capable of rotation always in the same direction, if it were itself rotating, there would be in the spectrum generally only a bright line and a luminous band. If there is to be a line spectrum only, it is found that the atom, and not the molecule, is the vibrator, except in monatomic gases. He infers that in all gases giving line spectra the vibrating parts are dissociated atoms, approximately spherical, which would explain why pure line spectra are given only by atoms. The atom is supposed by Jeans to consist of a great number of point electric charges arranged in spherical shells of alternate signs. The outer shell is assumed to be always negative, to account for the greater importance of negative ions, as shown by Zeeman and others. Incidentally the calculations lead to an estimate of the size of an atom, namely, the radius of an atom of atomic weight n should be, at least as regards order of magnitude $\sqrt[3]{10^{-8}}$ cmeter. The molecule, which is a combination of atoms, is defined by its charge and magnetic moment when placed in which the total charge is zero. It follows that no free ions can be liberated by chemical change, and that the force exerted by a molecule at external points falls off very rapidly with the distance. Each molecule will have, generally, a rotational vibration about an axis, which will emit electromagnetic waves. Under certain circumstances this may be converted into continuous rotation, the atom or molecule thus becoming a permanent magnet.

**Reflection.**—B. V. Hill (ibid., November, 1901) has further investigated the property of dilute solutions of gelatin and gum-arabic by which when strained they become doubly refracting. The dilute jellies were placed in thin brass tubes closed by glass plates at the ends, and were strained by squeezing the tubes between clamps so that their cross-section was elliptical. The double refraction first increases with the compression, then remains stationary, and finally diminishes. The solutions thus behave like solids that can sustain only a small amount of strain. G. Kucera and C. Forch (Physikalische Zeitschrift, Jan. 1), having in mind the fact that the dielectric constant of a liquid decreases with the temperature, but in a different manner for different substances, have studied the temperature variation of the refractive index, which should be connected with the law of Atwood’s law. The liquid is enclosed in a prism whose refracting edge is horizontal, and is then placed in a freezing mixture, where its refractive index is measured by total reflection. The results show that the refractive index, $n$, may be calculated from formula of the form $n = a + bt + ct^2$, where for alcohols $a$ varies between 1.34 and 1.42 and $b$ from 0.00900 to 0.00906. P. Zeeman (Archives Néerlandaises, 4, 1901) has determined the optical constants of platinum up to 200° to decide certain questions in dispute. Kundt found that the index of refraction of platinum increases by about 27 per cent. for a temperature rise of 100°, while Drude found for platinum, silver, and gold only very small variations. The author finds very small effects. F. Pockels (Annalen der Physik, April 8) has experimented on the effect of deformation on the optical properties of going at an angle of 45° with the axis of the prism. He found that at 100°, the thin glass has no double refraction for light of a certain wave-length. Dispersion due to mechanical thrust is considerable only in the heaviest flint glasses. (2) Change of index with hydrostatic compression increases with the density and index, but does not agree with any formula which have been put forward. (3) The pure temperature coefficient of the index (the result obtained by subtracting the portion of the coefficient due to change of density) is positive and increases rapidly with the percentage of lead. (4) Dispersion may either increase or decrease as the pure temperature coefficient increases.

**Fluorescence.**—Chauvet (Comptes Rendus, May 20) finds that the well-known fluorescence of the diamond in violet light is intimately related to its brilliancy in artificial light, especially candle-light. The most brilliant stones are those which are most clearly fluorescent in violet light; they exhibit a clear blue, very luminous fluorescence, while less brilliant diamonds simply assume a violet color. A brilliant yellow diamond will persist for a few minutes when placed in violet light, and its color changed to dull brown, but it recovered color and brilliancy in twenty-four hours. The action of violet light also distinguishes the rubies of Siam, which exhibit
a scarcely appreciable fluorescence, from the greatly inferior rubies of Burma, which are very fluorescent and gleam brilliant red. W. Voigt (Archives Neerlandaises, 6, 1901) states that while a complete theory of fluorescence and phosphorescence on the electron hypothesis is at present impossible, owing to our scanty knowledge of the internal constitution of molecules, we may be allowed to make out the lines of the spectrum to obtain certain generalizations. The author considers the two phenomena to be caused by irregular vibrations due indirectly to the incident light, although not directly excited by it. Free negative electrons would be more susceptible than the more massive portions of the molecules, and it might be assumed, therefore, that the latter are indirectly set in vibration by the former. It is more probable, however, that the molecules of a fluorescent substance can exist in two or more distinct states, to which correspond distinct intrinsic periods of the electrons. In such a medium, if there is sensibly less damping in the state corresponding to the longer period of the electrons, there will be sensibly fluorescent, and in the other the sensibility is lowered. Sensitivity is greatly increased by the author to give electrons similar to a fog or mist. When not kept in by a thick metal screen, this diffuses away in the free air, like odoriferous particles. Polonium, however, behaves somewhat differently. Radium emanation may be removed by a current of air. It will pass through aluminum and a considerable length of air, and the sensitive film, but polonium differs here also in its action. Corneous from polonium may be heavy positive ions, and the author is now making experiments to test this inference. From a negative silver pole in a tube of very high vacuum with a perforated sheet of mica in front of it electrons shot in all directions, and, passing through the hole, formed a bright phosphorescent patch on the opposite side of the tube. After some hours silver had been deposited only on the mica screen and near the pole, while the glowing end of the tube was free of deposit, and seemed to have been shot off from the negative pole, causing the glass on which they impinged to phosphoresce, while at the same time the negative negative electrons, also flew off, and were deposited near the pole. These metallic ions when deposited on a metal plate in all cases showed positive electroconductivity. The original color of the film, the view of Strutt that the non-reflectable Becquerel rays are streams of heavy positive ions. M. and Mme. Curie (Comptes Rendus, Jan. 13) look upon radio-activity as an atomic property of bodies. According to their latest hypothesis, each atom of a radio-active substance acts as a constant source of energy. The radiant activity seems to be rigorously the same whenever the radio-active body is brought back to the same chemical and physical state, and appears not to vary with time. Suppositions as to the origin of the energy of radio-activity group themselves round two hypotheses: (1) Each radio-active atom possesses in the condition of potential energy the energy which it sets in action: (2) the radio-active atom is a mechanism which draws at each instant from outside of itself the energy which it sends out. On the first hypothesis the potential energy should in the long run become exhausted, but the experience of years has hitherto excluded any variation. On the second hypothesis radio-active bodies are transformers of energy. This might be taken, contrary to the principle of Carnot, from the heat of the surrounding medi-
um, which would experience cooling, or it might be furnished from radiations with which we are familiar, as are spontaneous and disintegrated bodies of any kind which makes these bodies radio-active. P. Curie and A. Debierre (Comptes Rendus, Dec. 6, 1901) find that various solid bodies acquire induced radio-activity when placed in a closed vessel with a radio-active salt of radium, preferably in the form of a aqueous solution. This induced activity is independent of the pressure, and of the nature of the adjacent gas. Substances that become phosphorescent on exposure to light, and a few others, become luminous when placed in an activating enclosure. If a solution of an active barium salt containing a few milligrams of radium be put into a glass globe, and in another communicating with the first by a bent tube a substance such as such as sodium in the latter becomes as slightly luminous when it has just been exposed to intense light. This is due to the induced radio-activity communicated through the bent tube. This induced radio-activity of bodies placed in an enclosure depends essentially on the free space existing around them. An activating enclosure of glass itself is not illuminated through merely by the maximum of both light and activity being in the wider portions. E. Rutherford (American Physical Society Bulletin 2, 1901) finds that the excited radio-active salt and cathode and other rays seem to be intermediate forms. Ionization is a subatomic, not an atomic, phenomenon. E. Becquerel (Comptes Rendus, Dec. 9, 1901) has found that radium in the two varieties of uranium salts, one of which is more radio-active than uranium itself, while the other is almost inactive. After eighteen months the progressively enfeebled products thus prepared were found to be almost identical, and had regained their activity. On the other hand, the abnormally active salt was found to have become completely inactive. The author suggests that the deviable rays, identical with the cathode rays, are the cause of the emission of the non-deviable radiation, which would then be analogous to the Röntgen rays in the continuous emission being comparable with the evaporation from an odorous body. The energy would be furnished by the active body, but the loss of weight would be too feeble to be observed. There would be two kinds of particles, one about 1.000 times smaller than the other; on separating, the smaller would carry negative charges, and would attain such enormous velocities that they could pass through solids, while the larger ones would move more slowly, and behave somewhat like a gas, forming on all bodies, excepting those electrified positively, a material deposit, which would be capable of dividing itself in its turn into smaller particles. This would explain induced radio-activity, and it would be in consequence of this molecular subdivision that induced radio-activity would disperse itself, even across an envelope of glass. The emanation which produces radio-activity must not, however, be considered as similar to an ordinary gas, for Curie has shown that emanation between active matter and the induced walls of an enclosure in which it is confined is a function of the quantity of active matter. There is thus no phenomenon analogous to the mere condensation of a vapor. Ester and Geitel (Physikalische Zeitschrift, July 6, 1901) believe that ordinary air contains a radio-active gas, similar in the presence of a negative charge to the mere condensation of a vapor. Ester and Geitel believes that the spontaneous discharge of a cloud in a metal makes other substances upon which it impinges radio-active. Certain anomalies in electrical dis-
negative ions of the air with the positive electrons of electrified conductors, but it has not been found possible to obtain on positive conductors layers analogous to those met with in negative conductors. (G. di Ciommo, Nuovo Cimento, Feb. 1901) believes that the discharging action of the radioactive substance can not be adequately explained by ionization nor by emission of electrified particles. All the effects of the distinction between conducting and non-conducting liquids is only a matter of degree, for all liquids conduct to some extent. He finds that the resistance in mixtures can not be cut down from the respective percentages; it is generally less than would have been expected, but the divergences vary. The condition of the liquid becomes profoundly modified upon the mutual solution of two liquids. H. A. Wilson (Philosophical Transactions, Nov. 22, 1901), from experiments to obtain information on the variation of the conductivity of air and of salt vapors with change of temperature, concludes that Faraday's laws for the passage of electricity through liquids apply also to alkali salts in the state of vapor. This result supports the theory that the conductivity of liquid electricity through salt vapors is analogous to the electrolysis of salt solutions. A. de Hemptinne (Zeitschrift für Physikalische Chemie, Dec. 13, 1901) has experimented with conductive gaseous mixtures at the moment of explosion, using two glass tubes, joined to a T, and a galvanometer. The galvanometer is found to be noticeably deflected in mixtures of hydrogen and oxygen when the presence of air and dust favor the condensation of water vapor; the effect is much weaker when the apparatus communicates with a vacuum and when the experiments are made at temperatures above 100° C. Hardly any deflection is observed in mixtures of hydrogen and chlorine and of carbon monoxide and oxygen. The author regards explosions as instantaneous flames.

Discharge Phenomena.—G. A. Hemsalech (Journal de Physique, February), analyzing the work of Schuster and himself, concludes that an electric spark is produced in the following manner: The layer of air between the two electrodes is first pierced by the initial discharge; then the air near the path becomes incandescent; this is followed by the "luminous" paraffin line integral of electromotive force round a closed curve is zero. He discusses the electromotive force of induction due to movement of matter, and says that the integral expression for the electromotive force is equal to the velocity of matter, multiplied by the magnetic induction. M. Carvallo also claims to have extended the two fundamental equations established for bodies at rest to bodies in motion, and to have given the electrodynamical equations for bodies in motion. The equation of motion he deals with as in ordinary mechanics.

Contact Electricity.—N. Hesmenus (Russian Journal of Physics and Chemistry, No. 1b), by extensive experiments on metal disks, shows that a polished surface is always positive to a mat surface of the same substance. This is equally true of non-metallic bodies; for instance, a plate of wood cut perpendicularly to the fibers will be negative to one cut parallel to the fibers. The author also shows that a metal will be more positive as its hardness is less. Apparent exceptions to this rule are easily explained, as by hygroscopic properties; for instance, a wet plate will be positive to the same metal, a dried paper capable of giving off dust, will be positive to all bodies, and dust will exhibit a negative potential-difference with respect to the body it is taken from, because its superficial density is less. The well-known fact that two pieces of quartz when struck together will shine in the dark is shown to be due to the fact that both pieces carry a positive electric charge, an almost inviolable layer of dust negatively charged being interposed between them.

Conductivity.—G. di Ciommo (Nuovo Cimento, Feb. 1901) notes, are to be traced to anode radiation of the undulatory type. Thus the flux from the anode arouses the cathode rays, which, on striking a metallic plate, or the glass, or the tube, give rise to Röntgen rays; these again excite further secondary rays, and so on. All these radiations are complex, containing parts devisible by the magnetic field, parts non-devisible, by varying penetrating powers, and so on. The author describes experiments to show that there are in the Becquerel radiation non-luminous rays which discharge electrified bodies and which will be described in a subsequent paper.
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Electricity — Another condenser moving edgewise through the ether should possess a magnetic field between the plates, in consequence of the motion. If, therefore, the earth is so moving, a condenser placed with its plates edgewise to the direction of the relative motion should experience a drag during charge and a forward impulse during discharge. E. T. Trouton (Dublin Royal Society, April) with a delicately suspended condenser gave only negative results. Cremerie (Annales de Chimie et Physique, November, 1901) has obtained results that strengthen the doubt already thrown on the existence of the electric field due to magnetic variations, and also upon the magnetic effect of electric convection. In Hall's work, with elimination of certain causes of error, the result was entirely negative. Rowland's and Himsell's deviations are not due to a magnetic field, and the original variations of its charge are varied, the effects of induction that a corresponding current subject to variations of the same order would produce. The same rotating disk charged in a constant manner does not produce the magnetic field of a conduction current carrying the same quantity of electricity. A. Righi (Nuovo Cimento, October, 1901) asserts that of the following four analogous phenomena, following on electromagnetic theory, none have yet been definitely verified by experiment: (1) An electric charge in motion should produce a magnetic field. (2) A varying magnetic field should produce an electric field. (3) A magnetic pole in motion should produce an electric field. (4) A varying electric field should produce a magnetic field. Attempts have been made to verify the first two phenomena, but the last two have not yet been experimentally tested. The author reviews critically the various experiments made to test the truth of these supposed laws and maintains that the second and third offer fewer difficulties than the first and fourth. He points out that the verification of any one entails the verification of all four.

Electrolysis — E. Wilson (Electrician, April 18) has investigated the electrolytic effect of alternate currents, which, as such currents are employed in rail-routes for electric traction, has become of practical importance, especially in the case of lead. He finds that the diminution in weight is nearly twice as great at a low as at a high frequency, and that the low frequency plays an important part in the reaction. The effect is entirely due to the current, as plates immersed in the same electrolyte when no current is passing are only slightly discolored. E. Lorenz (Electro-Chemist, December, 1901) explains various phenomena of electrolysis in fused salts by an empirical formula which he also deduces from the first law of thermodynamics. According to this the counter-electromotive force in the electrolytic bath is proportional to the current yield. This is applicable to the commercial electrolytic production of potassium, sodium, and magnesium, and to the Héroult cell for the production of aluminum. It explains the increased yield obtained by cooling the cathode, and by adding certain substances; in both cases the solubility of the metal and the tendency to form the so-called "fog" are diminished, the polarization is diminished, and the current yield consequently increased. Diffusion of metal in the form of "fog" explains the results of electrolysis with diaphragms, through many of which the metal "logs" are unable to pass.

Hall Effect — H. A. Wilson (Cambridge Philosophical Society Proceedings, February) finds a very large Hall effect in the ordinary electric discharge in gases at low pressures, the electrodes being immersed in an apparently uniform positive column. The magnetic field always produces a transverse motion of the column, as if it were a flexible conductor carrying a current, and it becomes brighter along one side of the tube. The effect is proportional to the magnetic field, is probably nearly independent of the current at pressures down to 0.0001 millimeter, and varies inversely as the pressure. The difference between the velocities of the positive and negative ions in the positive column is $4.50 \times 10^6 p$, where $p$ is the pressure in millimeters of mercury. E. van Everdingen, Jr. (Archives Néerlandaises, 4) explains the disymmetry of Hall's effect as due to a difference in the increase of resistance in
two principal directions, corresponding to the mean trend of the crystallographic axes of the metal. This anisotropy effect is not the same when an axis of symmetry lies directly between the electrodes and when it does not, owing to the state of aggregation of the bismuth. Another cause of apparent anisotropy is the increase of resistance along the lines of force. G. Moreau (Journal de Physique, August, 1901) concludes from a series of experiments on films of silver and nickel that for films approaching $5 \times 10^{-4}$ centimeters thickness the accepted law of the Hall effect does not apply. Apparently the outer layers of a film, to a depth of $2.5 \times 10^{-4}$ centimeters, have properties differing from those of the interior. Thus the total thickness of a film is the sum of the outer layers together with the thickness of the homogeneous interior. For thin films the usual formula requires amendment so that it may express this fact.

Röntgen Rays.—P. Curie and G. Sagnac (Journal de Physique, January) find that secondary rays from heavy metals struck by Röntgen rays carry negative charges and leave positive charges on the metal. In a high vacuum these are independent of the distance, but in presence of air partial or complete neutralisation can take place. The departure of the air into positive and negative particles, resembling in this property the cathode rays and the devisible radiations from radium. Röntgen rays carry no charges, while radium emits uncharged Röntgen rays and charged cathode rays mixed. It is probable that secondary rays present a similar mixture. R. K. McClung and D. McIntosh (Philosophical Magazine, January) have compared the absorbing power of different solutions for Röntgen rays by means of two parallel metal plates at different potentials, between which the rays were allowed to pass. A current is set up between the plates, which will be proportional to the intensity of the rays. In this way the relative amounts of rays which pass through different solutions were ascertained. The permeability of a substance was found to be the same for rays of different intensities. An increase in the amount of salt in solution pro-
duced a very slight effect on the charge of the rays, and in general increase of atomic weight causes increase of absorption. E. Villari (Nuovo Cimento, August, 1901) finds that when Röntgenized air is passed through an insulated zinc tube, and one pole of a dry pile is held near the wall of the tube at its outer end, the tube becomes strongly charged with electricity of the same sign as that of the pole, but there is no charge unless the air is Röntgenized. As the distance between the pole and the end of the tube increases the charge diminishes and practically no charge is perceptible when the distance is 30 centimeters. A screen between the tube outlet and the pole of the dry pile prevents the charging of the tube or ball. This tends to show that the air reaches the pole by diffusion, and communicates its charge to the tube, but this view is contradicted by other facts. (See also Radio-Activity under Light.)

Hertzian Waves.—K. Wildermuth (Annalen der Physik, April 29) has experimented with an oscillator consisting of two spheres immersed in oil, the waves from which passed along a pair of parallel wires, which, in turn, were led through a glass vessel containing a liquid. Thus he has measured the absorption coefficients of comparatively good and bad conducting liquids. With water, sodium chloride, and copper-sulfid solutions, using waves of a period $21 \times 10^{-8}$, the absorption coefficients are theoretically derivable from the conductivities. Waves of a period $74 \times 10^{-8}$ were more strongly absorbed by distilled water than salt water. G. Gutton (Journal de Physique, December, 1901) has studied electric waves propagated along wires proceeding from one of the ordinary oscillators, with a view to solving the question of whether electric oscillations of higher orders are present under such circumstances. He observed waves of different periods, their number being greater as the system is made longer, and among these he reports that he could distinguish two groups whose periods are comparable respectively to the period proper to the primary and to that proper to the secondary. In each of the groups the lengths of the waves form a set which tends more and more toward a harmonic series as the length of the vibrating system increases. C. Gutton (Journal de Physique, December, 1901) passed electric waves from a Hertz vibrator along two parallel wires which passed into a tub containing the resonator, and afterward extended to some distance within a long trough, being connected by a bridge. With first air, then water in tub and trough, the wave-lengths were found to be invariable, with the resonator either in the air or in the tub, the wave-lengths depending upon the length of the wires. But when the resonator was kept in air and the wires immersed in water the semi-wave-length was reduced from 145 centimeters in air to 17.5 centimeters in water, giving 3.3 as the refractive index of water for the waves. These experiments contradict Turpian’s statement that the period of a resonator is independent of the medium in which it moves. G. C. Grimes (American Journal of Science, January) has attempted to discover whether electrical oscillators with thin surfaces of metal are as efficient as similar ones made solid or with thicker skins. Oscillators of the cylindrical and of the spherical type were used, made of solid brass, solid Norway iron, copper tubing, solid electric-light carbon, sheet platinum on a wooden form, sheet silver, tinfoil on wood, gold-leaf on wood, silver-leaf on wood, copper deposited electrolytically, and silver deposited chemically on glass. The resistance of the metal was in the ratio of 1 to 2 for a cylindrical and spherical doublets, the various thin mantles, and even the excessively thin gold-leaf shells were as efficient as the solid metal bodies.

Coherence.—W. H. Eccles (Electrician, Aug. 23-30, 1901) finds, from various experiments, in opposition to the views held by several authorities, that electrical surges, such as are produced in any circuit to which an electromotive force is abruptly applied, have no effect in producing coherence. The phenomenon, as Brany and others have maintained, is an effect of electromotive force merely. Coherence is a continuous phenomenon, and there can be no true "critical voltage." The author makes the typical coherer consist of filings free to move throughout the space of a narrow crevice, bounded at its ends by plane conducting surfaces. E. Brany (Comptes Rendus, May 26) has devised a coherer consisting of a steel disk with three legs ending in blunt oxidized points resting upon a polished steel disk. Decoherence is effected by a very slight tap, and there is a corresponding increase in speed. The author finds this form was led through a glass tube containing a liquid, and that it will continue in working order for several months. When transmitting a message, the tripod of the coherer at the sending station is slightly charged in motion, and that it will continue in working order for several months. When transmitting a message, the tripod of the coherer at the sending station is slightly charged in motion, and that it will continue in working order for several months.
sparks. D. McIntosh and J. Graham-Willmore (Electrical World and Engineer, May 31) describe a series of experiments made to investigate a coherent effect described by A. P. Collins, as occurring in fresh brain substance. They report they were unable to obtain any evidence to show that such an effect existed. Trials were made with the brain of a person before and after death, and with a human brain quickly removed from a recently dead person. Tommasini (Physical and Natural History Society of Geneva, April 4, 1901) opposes Bose's theory that coherence is due to molecular distortion. He has succeeded in forming visible chains of particles suspended in petroleum between two electrodes. The dielectric particles formed chains first, and as the field increased in strength the metallic particles followed, being finally welded by minute sparks. Spontaneous decoherence is due, according to the author, to the interposition of non-conducting particles between the conducting particles.

**Vacuum-Tube Phenomena.**—H. Pellat (Comptes Rendus, Dec. 23, 1901) finds that when a long tube is laid through a magnetic field, at right angles to it, and the field is set up, not only is the anode light driven toward the strongest part of the field, but the stratifications seem to collect in a direction determined by the inclination of the field on the axis of the tube. This crowding and slanting occurs in uniform or non-uniform, constant or variable fields, and best with fields of from 90 to 170 kilo-gauss. If the tube be put through the field in the usual manner, the holes in pole-pieces made of use of in rotary polarization, when there is no field the tube is between the pole-pieces filled with the anode light; but when the voltage is drawn from 500 to 7000 v. d. c. the light shrinks to about one-third, and remains axially. This is the fact that the field is about 3 per cent. stronger along the axis between the holes than opposite the margins would explain a concentration of magnetic oxygen molecules along the axis of the tube, but would not explain the similar behavior of diamagnetic hydrogen. Possibly hydrogen may become magnetic in a Geissler tube. The same investigator in a later paper (ibid., May 5) reports that when the part of a Geissler tube which is well illuminated by anode rays is placed so that the magnetic field is perpendicular to the rays, fields up to 425 c.g.s. units deviate the column and form on the wall of the tube a luminous strip which becomes thinner and more intense the stronger the field. But for higher fields the luminous strip increases, and for strengths of 7000 to 8000 units the anode column once more fills the whole section of the tube almost uniformly. The resistance of the tube then becomes enormous. But if the lines of force be in the same direction as the anode rays, there is no such increase of resistance. Thus the anode stream, like the cathode stream, experiences a large mechanical resistance perpendicular to the lines of force of an intense magnetic field, while the resistance to its progress in the direction of these lines of force is feeble. In the latter case, with the ends of the tube inserted into holes in the pole-pieces, the anode column becomes narrowed into a thin cylinder occupying only the axis of the tube, which is explained by the result noted above. J. B. B. Burke (Philosophical Magazine, 1, 342 and 455, 1901) finds that between certain limits of pressure, which vary for different gases, the discharge has a behavior resembling that of the passage of the ring discharge in an electrodeless vacuum-tube, and lasts sometimes for one or two minutes. The author believes this glow to consist of a gliding path of molecular ions, which are not carried by an electrical charge, which are not destroyed or broken up by an electromotive force sufficiently small not to produce a discharge in the gas, and which are not created by the recombination of ions along the tube, but are particles or molecules that are produced in the bulb by the passage of the ring discharge and make down quite independently of the electrical condition of the tube, and after death, and with a human brain quickly removed from a recently dead person. Tommasini (Physical and Natural History Society of Geneva, April 4, 1901) opposes Bose's theory that coherence is due to molecular distortion. He has succeeded in forming visible chains of particles suspended in petroleum between two electrodes. The dielectric particles formed chains first, and as the field increased in strength the metallic particles followed, being finally welded by minute sparks. Spontaneous decoherence is due, according to the author, to the interposition of non-conducting particles between the conducting particles. Vacuum-Tube Phenomena.—H. Pellat (Comptes Rendus, Dec. 23, 1901) finds that when a long tube is laid through a magnetic field, at right angles to it, and the field is set up, not only is the anode light driven toward the strongest part of the field, but the stratifications seem to collect in a direction determined by the inclination of the field on the axis of the tube. This crowding and slanting occurs in uniform or non-uniform, constant or variable fields, and best with fields of from 90 to 170 kilo-gauss. If the tube be put through the field in the usual manner, the holes in pole-pieces made of use of in rotary polarization, when there is no field the tube is between the pole-pieces filled with the anode light; but when the voltage is drawn from 500 to 7000 v. d. c. the light shrinks to about one-third, and remains axially. 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and without the production of light, through the gas, as through an electrolyte, so that the observed strata and lines exactly represent the underlying reality.

Iodization.—J. A. McClelland (Cambridge Philosophical Society Proceedings, February) describes experiments on conductivity produced in gases by the action of incandescent metals in which there are many indications of the presence not only of ions produced from the molecules of the gas, but also of ions actually given off from the hot wire itself. Thus at a pressure of 1 millimeter or less, the current when the wire is negative may be 50 times what it is when the wire is positive. Such a difference from atmospheric pressure suggests that, at low pressure, there are numerous negative ions from the wire itself. J. S. Townsend (Nature, March 6) draws the following conclusions from various experiments: The negative ions set free from a zinc plate when ultra-violet light falls on it generate other ions by collisions with molecules of air, carbonic acid, or hydrogen. The negative gaseous ions thus generated have the same properties as those generated from the zinc. Thus ions given off by the zinc plate and the loss of charge of the electrons are identical. The negative ions generated by Röntgen rays in a gas are also the same, being identical in mass, free path, and charge. Thus it is possible to detach from the molecules of gases negatively charged particles, which are small compared with the molecules, and are the same from whatever gas they are removed. F. Curie and L. de Courcelles (2. C. Gh. Soci. Elect., March, 1902) have investigated the discharging effect of ionized air that has passed over a volatile liquid, as compared with the same air after passing over a non-volatile liquid. The results show that the discharging effect of the ionized air is increased by the vapor of the volatile liquid. Possibly the mingled vapor has a greater conductivity than the ionized air, or the mingled vapor may be ionized.

Electrification of Air by Glow Discharge.—O. Lehmann (Annalen der Physik, December, 1901) concludes that the explanation of the experiment that convective transfer of electricity by glow discharge at a point is not due to conductivity of the air. He finds also that an electrically charged body when immersed to a given time does not lose its charge if it is of higher and similar potential, while in the opposite case it loses its charge completely, and acquires the opposite one. During the duration of the discharge the electric force in the same way, and the electrification can therefore not be conditioned by the presence of free moving electrons. The convective flow fills the space around the point, but behind an insulating plate perpendicular to the lines of flow, there is a space free from electrified air. In a region in which both positively and negatively electrified air is present, the air is apparently conducting. Electric winds proceeding from two oppositely charged points combine only partially, a greater part escaping unchanged to the walls of the room.

The Arc.—C. Péry (Comptes Rendus, May 26) has measured the temperature of the crater of the voltaic arc, which represents, according to Violle, the temperature of ebullition of carbon. By extrapolation of results obtained from various physical properties, Violle obtained values ranging from 3,500° to 4,100°. The author, by application of Stefan's law, reaches a result near the lower of these values, and he lives it with an improved form of optical pyrometer, with which he gets the values 3,867° and 3,807°. This was higher than the value deduced above, but a repetition of the observations with graphitic carbon gave concordant values. At the temperature of ebullition, therefore, carbon does not behave as a perfectly black body.

Leakage.—M. Mache (Vienna Academy, December, 1901) finds that leakage is directly proportional to the potential of the charged body, other things remaining the same. This is contrary to the results of Elster and Geitel. In a closed vessel, where the leak from the conductor in it is tested under the same conditions, it is found gradually to increase to about the fourteenth day, after which it remains constant. The leakage is proportional to the pressure of the surrounding gas, and a rise in temperature from 10° to 60° is without influence.

Magnetism. Theory.—W. Voigl (Göttingen Scientific Association, 3, 1901) investigates analytically the possibility of obtaining from the theory of electrons an explanation of paramagnetism and diamagnetism. He assumes that the translation by the velocity of the electrons are small in comparison with the velocity of radiation, and also, as a preliminary hypothesis, that the electronic motions are undamped. It is then found that a decrease in the velocity of radiation is due to the decrease in the velocity of the electrons; the consequence of the formation of magnetic fields will not give rise to magnetic phenomena. The effects of damping are then considered, and the author shows that, on this hypothesis, in a constant magnetic field, if the energy dissipated is supplied by means of any completely irregular series of impacts, so that the mean value of the energy tends to a fixed limit, the body will exhibit paramagnetic or diamagnetic properties, according to whether the mean energy of the electrons after the impacts is mainly potential or mainly kinetic.

Effect of Field on Electric Resistance.—J. J. Thomson (Philosophical Magazine, March) concludes that, on the theory that the electric current in a metal is carried by charged particles moving freely through the metal, the resistance should be increased by a transverse magnetic force. The opposite is the conclusion of Van Everdingen, whose results are based on the assumption that the corpuscles which carry the current behave like a perfect gas; that the collisions with the surrounding molecules are similar to those between hard elastic bodies; and that two collisions are free from any force except that due to the external field. Thomson states that the second assumption of Van Everdingen is not likely to be true, but that a collision ought to be regarded as consisting of a deflection of the path of the corpuscle, due to the force exerted on it by a molecule near to which it passes; on this supposition it is highly improbable that the resistance should be diminished by the field. As to the third assumption, as the corpuscles are highly charged, and within distances of less than 10^{-7} centimeters of the molecules of the metal, it is almost certain. Thomson says, that the forces exerted on the corpuscle by surrounding molecules are enormously greater than those due to the external electric field, and that at the end of its free path the corpuscle rushes into or past the molecule with which it is colliding with a velocity very large compared with that with which it started.

Stability.—M. Ascoli (Nuovo Cimento, January) has investigated the conditions under which magnetization is not affected by shock. A permanent magnet is not always to be obtained by adjusting magnetizations and demagnetizations. The percentage of permanent magnetism which must be sacrificed in order
to secure such stability is greatest for iron and least for tempered steel. It is practically independent of carbon in steel, being about 60 per cent. in iron, where it does not depend on the form of the iron. With steel it varies from 7 to about 20 with the form of the metal; with tempered steel it varies from about 0.2 to about 0.9 per cent. In tempered steel, even though the magnetization be not uniform, it is possible to attain approximately perfect stability in all points of the metal. Klemencic (Annalen der Physik, August, 1901) observed the moments of three permanent magnets over a period of about five months, the magnets being kept in iron cases lined with cotton to protect the magnets from shocks. During the first few days the magnets showed a small change (less than 1 per cent.), but after this the moment of each magnet remained constant within the limits of error of the experiments. These changes the author attributes to magnetization or demagnetization of the case. The experiments show that there is a great advantage in keeping magnets in iron cases.

Magnetostriiction.—C. Barus (Physical Review, November, 1901) asserts that accepted theories of magnetostriiction are faulty in ignoring viscosity. From this work it is seen that the strain is accompanied in solids by viscosity and slip between the particles. But magnetization produces strain; hence we should expect the phenomena of magnetostriiction to involve viscosity and slip. To test the matter Barus subjects a soft iron wire to a fixed torque, corresponding to a definite deflection on a scale. If the wire be magnetized the deflection changes, and when the field is removed the deflection is found to differ from the original one. The author finds by investigation (1) that in the presence of an impressed strain a longitudinal field produces increased rigidity and temporary set; (2) temporary and permanent set occur in twisting, just as in magnetization. H. Nagaoka and K. Honda (Comptes Rendus, March 3) have experimented with nickel-steels having respectively 25 per cent., 29 per cent., 36 per cent., and 46 per cent. of nickel. The first was not sensibly magnetic, and showed no change in length under blood pressure; the second was sensibly magnetic, and varied in length slowly with the field; the third was strongly magnetic, and varied at first rapidly, but soon approached a linear proportionality. The fourth is often replaced by a mixture of the second and third in properties. The variation in volume becomes less as the alloys are more strong in nickel. Thermal changes influence these observations very little. Thus, although the third alloy has a coefficient of thermal expansion about one-tenth as much as the second and fourth, its variations in dimensions are intermediate between those of the other alloys.

Magneto-optics.—P. Zeeman (Royal Amsterdam Academy, May 31) notes that instead of a negative rotation in the interior of an absorption band, as required by Voigt's theory, Corbino has obtained a small positive rotation only. He has therefore tested the question by observing the alterations shown by the interference bands of a Fresnel prism system in the neighborhood of the sodium lines, the amount of sodium vapor in the magnetic field being gradually increased, while the field is kept constant. In a field of 18,000 units, displayed on a plate in which a rotating field of approximately 400° was observed in the case of both lines. Increasing the magnetic field will produce a diminution of this negative rotation, which, according to a negative rotation of approximately 400° was observed in the case of both lines. Increasing the magnetic field will produce a diminution of this negative rotation, which, according to Voigt's law, should appear. In consequence of the magnetic field, the magnetic field, the molecular vibrations are reversed to a negative rotation of approximately 400°. Thus, phenomena identical with those recorded by Corbino were noted. Further experimental work appears to be necessary to account for the phenomena observed. C. Runge and F. Paschen (Sitzungsberichte der Physikalisch-Technischen Reichsanstalt, 1901) have verified for five different metals Preston's observation that lines of elements corresponding to the series laws, are so decomposed in the magnetic field that on a scale of vibration numbers the components of corresponding lines in equal magnetic fields stand at equal distances. When the lines are normal triplets it follows, from H. A. Lorentz's laws, that in the spectra of the different elements the relation of the charge to the mass of each particle is the same; and so the different spectra appear to be due to identical particles with an intermolecular material corresponding to the respective elements. Possibly similar charged particles oscillate round their centers of gravity while the chemical molecules determine the forces with which the particles are, in the absence of a magnetic field, drawn into equilibrium. This would make the spectrum different for each element; while the decomposition of corresponding lines in a magnetic field would be equal in different spectra.

PHYSIOLOGY. General and Theoretical.

In an address on The Relation of Biology to Medicine, Prof. T. H. Huxley, of King's College, London, adduced a few instances to show how a knowledge of biology contributes to giving our knowledge of the facts of human physiology a wider grasp. Looking at the function of respiration from the point of view of the human organism, we would necessarily conclude "that lungs are necessary, that muscles are necessary, that blood-corpse are necessary, that hemoglobin is necessary, and that there is iron necessary. If you look at this function from the point of view of biology, or of comparative anatomy, you will be able to find illustrations in the animal kingdom in which each of these several structures that I have mentioned may be absent. There are large groups of organisms without lungs, but having branches; there are organisms with lungs, but with no diaphragm or an incomplete diaphragm; there are animals which breathe with their skin; there are animals which have no hemoglobin dissolution; the second is sensibly magnetic, and varied in length slowly with the field; the third was strongly magnetic, and varied at first rapidly, but soon approached a linear proportionality. The fourth is often replaced by a mixture of the second and third in properties. The variation in volume becomes less as the alloys are more strong in nickel. Thermal changes influence these observations very little. Thus, although the third alloy has a coefficient of thermal expansion about one-tenth as much as the second and fourth, its variations in dimensions are intermediate between those of the other alloys.

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chemists by labeling it as vital was a confession of ignorance and a bar to progress. It might be that there is a special force in living things that distinguishes them from the inorganic world.

If this is so, the laws that regulate this force must be discovered and measured; and the author had no doubt that these laws when discovered would be found to be as immutable and regular as the force of gravitation. He was hopeful, however, that the scientific workers of the future would discover that this supposed vital force is due to certain chemical and physical properties of living matter that have not yet been brought into line with the known chemical and physical laws that operate in the organic world, but which as our knowledge of chemistry and physics increase will ultimately be found to be subservient to those laws. Where a scientific man says this or that vital phenomenon can not be explained by the laws of chemistry and physics, and therefore must be regulated by laws of some other nature, he most unjustifiably assumes that the laws of chemistry and physics have all been discovered. The recent history of science gives emphatic denial to such a supposition.

Concerning the effect of extremely low temperatures on the life of living organisms, Prof. James Dewar observed in his presidential address before the British Association that experiment indicates that moderately high temperatures are much more fatal, at least in the lower forms of life, than exceedingly low ones. In a series of typical bacteria the temperature of liquid air for twenty hours vitallity was not affected and its functional activities remained unimpaired, while the cultures which were obtained were normal in every respect. The same result was obtained when liquid hydrogen was substituted for liquid air. A similar persistence of life in seeds has been demonstrated even at the lowest temperatures. The seeds were frozen for one hundred hours in liquid air, with no other result than to affect their protoplasm with a certain inertness from which it recovered with vigor. Thus barley, clover, rape, arable marrows, and mustard-seeds were steamed for six hours in liquid hydrogen without their properties of germination being disturbed. A recent research by Prof. Max Römheld has shown that many varieties of micro-organisms could be exposed to the temperature of liquid air for six months without appreciable loss of vitality, although at such a temperature the ordinary physical properties of the cell must cease. At such a temperature cells could not be said to be either alive or dead, in the ordinary acceptance of those words. It is a new and hitherto unobtained condition of living matter—a third state. Certain species of bacteria during the course of their vital processes are capable of emitting light. If, however, the cells be broken up at the temperature of liquid air and the crushed contents are brought to the ordinary temperature, the functions of luminosity are found to have disappeared. This fact indicates that luminosity is not due to the action of a ferment—luciferas—but that it is essentially bound up with the vital processes of the cells, and dependent for its production on the intact organization of the cell. The attempts to study by frigorific methods the physiology of the cell have already yielded valuable and encouraging results.

The results of statistical investigations undertaken to determine—regarding the common belief that men of great ability have larger heads than the average population—whether any head measurements, and if so, which ones, are related with intellectual capacity, were communicated to the Royal Society by Prof. Pearson in January. The author pointed out that though the professional classes are more intellectual and have larger mean head capacity than the hard-working classes, this did not lend any support to the current notion; for the professional classes are better developed physically, and the difference is probably due only to difference of nurture. In order to investigate the matter, a homogeneous class should be taken. The author had pursued his investigations among the undergraduates of the University of Cambridge. The men were divided into two groups—honors men and poll men—and fourfold tables were made from 1. cephalic index and degree; 2, length of head and degree; 3, breadth of head and degree. No marked correlation was disclosed between ability and the size or the shape of the head. The problem was next worked out in the light of measurements made in schools, the measurements being all reduced to correspond with an identical age, the twelfth year being chosen as the standard. The pupils were divided, according to the records furnished by their teachers in King's two classes of intelligent and slow. The results were in complete agreement with those drawn from the studies of the Cambridge undergraduates. The cases best known in detail with the Cambridge men, with the conclusion, from the whole study, that there is in the general population very insignificant correlation between ability and either the shape or the size of the head.

In his lecture on Catalysis and Catalysts, Prof. Wilhelm Ostwald spoke of enzymes as to be looked upon as catalysts which are in the organs during the life of the cell, and by the action of which it discharges the greatest part of its duties. Digestion and circulation were from beginning to end regulated by enzymes; and the fundamental life-activity of most bodies—the acquisition of the necessary chemical energy by combustion in atmospheric oxygen—takes place with the definite cooperation of enzymes, and without this would be impossible: for free oxygen is very inert at the temperature of organisms, and without an acceleration of the reaction the maintenance of life would be impossible. Emphasis was placed by Prof. Ostwald upon catalysis as a very important physiological factor. The older chemistry had proved unproductive in the explanation of physiological phenomena, and it seemed as if chemistry and physics were unable to contribute anything decisive toward solving the riddle of life. But it was the author's full conviction that by means of the later advances of chemistry, there lay before physiology a department no less important than that which was brought about by Liebig through his first applications of chemical science.

Circulation.—Hemoglobin and its derivatives in the animal system have for many years been regarded by physiologists as occupying a somewhat analogous position with that of chlorophyll and its derivatives in the vegetable kingdom. The view may be said to be the outcome of recent chemical and spectroscopical research. Thus these complex organic pigments produce characteristic absorption bands in the ultraviolet part of the spectrum. It has lately, however, been shown by Mm L. Bier and L. Marechalski that this fact is not apparent in the spectra of all the derivatives of the coloring matter of blood (hemoglobin); for these observers have demonstrated by photographs of the spectra of bili-
rubin, biliverdin, urobilin, and proteinichrom that the characteristic bands in the violet part are absent. But from this observation it must not necessarily be inferred that these organic pigments are not derivatives of hemoglobin, for, as the investigators named point out, the characteristic absorption bands in the violet area of the spectrum produced by the complex molecule of hemogloibin may not depend on the constitution of the nucleus forming the basis of this completed mother substance, but may arise from certain atomic groups which do not appear in some of the derivatives.

In a paper read before the British Medical Association on the Action of Certain Hemolytic Agents on Nucleated Blood-Corpuscles, Prof. Stewart observed that mammalian red blood-corpuscles presented certain properties which at first sight appeared to be vital phenomena, and yet were certainly of physical origin; for example, selective absorption. Thus ammonium chloride was taken up by the corpuscles, while sodium chloride was not; and this happened in formaldehyde-hardened corpuscles as well as in living ones. In this research, the author had shown that similar phenomena were found in the nucleated corpuscles of birds, fetal mammalians, and the corpuscles of bone-marrow. Of special interest were the observations on the corpuscles of Necturus, a tallied amphibian with very large corpuscles.

Experiments are described by Swale Vincent and William Sheen which go to show that nervous, muscular, glandular, and other animal-tissue extracta can be made to contract as a result of the flow of blood injected into the circulation. Whether or not the depressor substance or substances are identical in the different extracta, the authors are not prepared to say.

Appearances in liver which had been injected with acetic acid gelatin from the portal vein are described by E. A. Schäfer as seeming to offer objective proof of the conclusion of Browicz that a network of nutritive canals exists within the hepatic cells, which are in direct communication with the lobular blood capillaries. Browicz had not been able to verify his conclusion by injection, as Schäfer believes has been done in this case.

A method of estimating the oxygen and carbonic acid in small quantities of blood and tissue samples through which it is applied are described by Joseph Barcroft and J. S. Haldane in the Journal of Physiology, vol. xxviii, No. 3.

From investigations of the local reaction of the arterial wall to changes of internal pressure, W. M. Bayliss demonstrates that the muscular coat of the arteries reacts, like smooth muscle elsewhere, to a stretching force by contraction, and to a diminution of tension by relaxation. These reactions are of myogenic nature, and independent of the nervous system, and can be observed not only in the living state, but in expired arterial blood gelatin.

Digestion.—Prof. W. C. Halliburton, in his address to the section of physiology of the British Association, cited, in illustration of the value of bold experimentation, the work of Pawlow, who had, by the introduction of new and bold methods of experiment, thrown a new light upon the processes of digestion. He had shown that digestion is not a succession of isolated acts, but each act is related to its predecessor and to the act that follows it. The process of digestion is thus a continuous whole; for example, the acidity of the stomach is associated with the delivery of the intestinal juice into the pancreatic duct, and so enables the latter to perform its powerful digestive actions. Further, the result of the various juices is admirably adjusted to the needs of the organism; when there is much protein to be digested, the proteolytic acidity of the juice secreted is correspondingly high, and the same is true for the other constituents of the food.

In experiments on the nerve movements and innervation of the stomach, Dr. Page May found that a short time after the taking of food by the animal movements of a rhythmic character arose in the wall of the organ. These movements were waves of contraction, each of which began near the esophageal end of the stomach. The waves succeeded each other at the rate of about three per minute, and slowly increased in strength as they passed toward the pylorus. The contractions originated in the wall of the organ itself; for they continued for half an hour or more after removal of the viscera from the body and its preservation in a bath of warm saline solution. The small ganglia in the wall of the stomach probably coordinated the contractions. Although the gastric contractions were of autochthonous origin, they were subject to the control of the central nervous system by means of the vagus especially of the left vagus nerve. On stimulating the peripheral end of the vagus nerve, the tone of the gastric muscle was usually at once much diminished. Any gastric contractions were then usually abolished. Shortly after this, on the contrary, renewed movements set in, often very vigorous in character, and usually about four times as powerful as a wave of a normal contraction of the stomach under ordinary digestion activity. Thus the first effect of stimulation of the vagus was inhibition of the gastric tone, the second increase of tone and augmentation of movement. Substitution of the central end of the vagus produced a slight inhibitory effect upon the stomach if the other vagus nerve was intact. The splanchnic nerve was not found to exert any influence upon the musculature of the stomach, either in the direction of augmentation or of inhibition. Occasionally some inhibition of gastric movement was excited by the stimulation of the splanchnic of the stomach experimentally produced by blocking the thoracic aorta cut short the normal contractions of that organ. The cerebral centers for the gastric movements and tone, which have been described by many observers, notably by Bechterew and Opendousky, were not found, although diligently searched for. No definite effect upon the movement of the stomach seemed to result from any central stimulation.

The researches of W. Ramsden indicate that urea has a potent influence upon proteins. Its presence up to saturation prevents the coagulation by heat of all protein solutions examined. Globulin, caseinogen, acid and alkali albumin, copper albuminate fibrin, and even heat-coagulated proteins swell up and dissolve in a saturated aqueous solution of pure urea. Dry gelatin is dissolved at room temperature until 40 per cent. is in solution. If the urea is removed by dialysis the gelatin sets solid again. Coagulable proteids are converted at room temperature into a substance possessing all the properties of acid or alkali albumin according as the reaction of the original proteid solution was alkaline or acid.

The presence of urea in the blood converts proteins into either acid or alkaline albumin, and even causes such conversions when none would take place in its absence. Similarly urea facilitates the conversion of proteids into alkaline hematin or acid hematin. The
presence of urea has a marked accelerating effect, generally as the system becomes accustomed to about the 10 per cent., upon the digestion of fibrin by pepsin, HCl (0.3 per cent. HCl), or by trypsin. In much larger quantities it has a retarding influence. A saturated solution of urea is a valuable histological reagent. By its reaction on the connective tissues it greatly facilitates the separation of a tissue into its individual elements—that is, cardiac and skeletal muscle, lens-fibers, fat cells—and except in the case of the connective tissue and possibly of the nerve-fiber, there is no danger of its action being too energetic or going too far. The properties of urine, contained in ordinary acid proof solution urea exerts a specific effect upon proteins makes this explanation improbable. The numerous definite crystalline compounds formed by the action of the natural salts suggest that it may act by combining with the natural salts of a protein and so give us an ash-free protein. Electrolytes exert an influence antithetic to some of the salts of urea upon proteins. The effects of urea upon protein may be described as: 1. Those of a substance sensibilisatrice, rendering the protein more prone to symolysis, conversion into acid or alkaline albumin. 2. Protective, since coagulable proteins are not heat-coagulable in its presence, but require their coagulability when the urea is removed by dialysis. 3. Solvent.

Continuing the account of his investigations at the meeting of the British Medical Association, Dr. Ramsden said that a dead frog placed in saturated urea solution soon became transparent and slowly fell. The myelin sheath of nerve was rapidly altered and presented similar appearances to that of degeneration. Urea converted native egg-white into a jelly. The author at first supposed that urea in these reactions was active as a base, but further experiments negated this view—for example, urea was equally active on protein in acid solution. Dr. Ramsden concluded that urea might act by rendering the protein more sensitive to the action of any acid or alkali present. He had prepared crystalline compounds of urea with proteins and palladium.

An inquiry by Messrs. Atwater and Benedict into the nutritive value of alcohol, reported in the proceedings of the National Academy of Sciences, concerned the value of alcohol as a fuel in the human body, and a comparison of it as to this point with sugar, starch, fats, and other nutritive matters in ordinary foods; and also the effect of alcohol upon the proportion of nutrient substance digested from food with which it was taken. More than 98 per cent. of the alcohol taken by the subjects was found to be oxidized in the body, and its potential energy to be converted into kinetic energy as completely as that of ordinary nutritive matters. Alcohol seemed to be effective in protecting the body fat from consumption, but less so in the protection of body protein. A slight advantage was found by the authors in favor of the non-alcoholic diet as regards the utilization of the total energy of the food, especially in cases involving hard exertion, but the difference was very small, and did not exceed the possible limits of experimental error.

Dr. Arthur Clopat, of Helsingfors, has reported to the Congress of Finland Physicians concerning a series of experiments he has made on the effects of alcohol upon the weight of the body. His conclusions are as follows: the system has become accustomed to it, supplies the place of both nitrogenous and non-nitrogenous food by rendering a smaller amount necessary; and 2. that it is a valuable physiological reagent. By its reaction on the connective tissues it greatly facilitates the separation of a tissue into its individual elements—that is, cardiac and skeletal muscle, lens-fibers, fat cells—and except in the case of the connective tissue and possibly of the nerve-fiber, there is no danger of its action being too energetic or going too far. The properties of urine, contained in ordinary acid proof solution urea exerts a specific effect upon proteins makes this explanation improbable. The numerous definite crystalline compounds formed by the action of the natural salts suggest that it may act by combining with the natural salts of a protein and so give us an ash-free protein. Electrolytes exert an influence antithetic to some of the salts of urea upon proteins. The effects of urea upon protein may be described as: 1. Those of a substance sensibilisatrice, rendering the protein more prone to symolysis, conversion into acid or alkaline albumin. 2. Protective, since coagulable proteins are not heat-coagulable in its presence, but require their coagulability when the urea is removed by dialysis. 3. Solvent.

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pressure; and others to the accumulation in the blood of some deleterious substance, and weakening of the blood-pressure, which is ordinarily destroyed by the adrenals.

Prof. Schäfer and Dr. Magnus, of Heidelberg, have found as to the effects of intravenous injection into the blood-stream that the epithelial part of the pituitary body causes a marked increase in urinary secretion. That part of the gland had always previously been supposed inert. It is urged that the diuretic action now proved to be excited by the gland has a direct bearing upon the disease called acromegaly, in which the pituitary body is present.

In an investigation of the histological and chemical position of iron in the spleen, Dr. W. Brodie, of Edinburgh, by the use of microchemical methods, has been able to detect iron in cells and also in bodies not of a cellular nature. Three varieties of iron-containing elements are described in the author's paper as belonging to the latter class; and besides these, several protein bodies containing iron which had been obtained by means of purely chemical methods.

The conclusions drawn by Prof. Ludwig Aschoff, of Göttingen, from experiments concerning the origin of serum albumin in the urine, confirm Virchow's researches and to support the view that the albumin present in nephritic urine is derived from the blood, and is different from the specific kidney albumin. According to the results hitherto obtained a difference appears to exist between the blood serum albumin and the kidney epithelium albumin. On the other hand, the investigations of von Dungern, Moxet, Metchniko夫, Schützen, and others, point to the existence of a relationship between the protid constituents of the different epithelial cells as well as of the blood-cells, inasmuch as the inted of one is event may yield a serum that acts on several species of cells.

In a paper read at the annual meeting of the British Medical Association, July 30, after pointing out that the migration of lymph might be considered in its relation either to the blood or to the tissues, Mr. F. A. Bainbridge passed on to deal with the relation existing between the tissues and lymph. He said the evidence in the case of the submaxillary gland, the liver and the pancreas increased accretion—that is, increased metabolism invariably led to increased lymphatic flow. The production of lymph being due to altered capillary pressure and permeability was excluded, and it seemed probable that the lymph was formed as a direct result of the metabolism. The author supposed that during metabolism, crystalloids were formed in the tissues; these passed by diffusion into the lymph, raised its osmotic pressure, and therefore attracted water from the blood, the result being an increased flow of dilute lymph.

Among the results obtained in other experiments by Bainbridge respecting the formation of lymph in the liver was the fact that the intravenous injection of moderate quantities of sodium taurocholate or of pure hemoglobin leads to an increased flow of lymph from that organ, and to increased metabolic activity of the liver cells.

Representations having been made by some authors that sugar in recognizable quantities had been found in liver after it had been boiled free of that substance, and that this fact seemed a difficult one to understand, experiments were made by F. W. Pavy and R. L. Siau with the liver of the cat and of the rabbit. The results in both cases were similar, and induced the conclusion that in a sterilized state no sugar is formed in liver substance when it has been subjected to thorough boiling.

The Muscular System.—Two kinds of muscular soreness have been determined in the ergographic experiments of Mr. Theodore Hough. One kind is very marked during work, and may be noticeable for twenty-four hours, after which it then passes entirely away. The other kind is not noticed at all at the time of the tracing and for some time afterward. It usually begins about eight hours after the work, increases to a maximum which may occur from ten to twenty-four or even more hours later. Indeed this soreness may not make its appearance till the second day after the tracing is present, or may be noticeable for four or more days. The first kind of soreness would seem to be due to the same cause as those which produce fatigue, namely, the presence of the diffusible waste products of exertion. There are reasons for supposing that the second kind of soreness is fundamentally the result of ruptures within the muscle.

Presenting the results of a series of experiments relating to the mechanism connecting the muscular apparatus with the centers for willed movement having their seat within the brain, Prof. Schäfer compared the relative effects of transection of the pyramidal tracts and of the lateral columns of the spinal cord. His observations had been made upon monkeys. Section of the vertical column of the spinal cord had been found to produce paralysis of voluntary movement in the parts of the body lying behind the segmental level of the lesion. The descending fibers of the vertical column of the cord were in the main derived from the cells of the reticular substance of the medulla oblongata, and these fibers, when separated, were found to be connected with the motor motor center of the brain stem. The lesion was found to cause a paralysis of the voluntary muscles of the leg and to produce a indifference to pain in the leg. The lesion was found to be followed by a paralysis of the muscles of the hand, and to produce a loss of the power of initiating voluntary movements in the hand.

The Nervous System.—In his presidential address before the American Neurological Association, Prof. Joseph Collis reviewed the most important work done during the year. He reviewed the current theory, which to-day stands as the basis of all neurology and neuropathology, in spite of criticisms and of the most elaborate histological investigation of the nervous system. He said that the theory, however, is generally established than ever. Recent researches, notably those of Apáthy and Bethe, were explained as not really antagonistic to it. All investigations tended to show that ontologically the nervous (or nerve elements) became more intimately united in series, and that such intimacy was structurally heightened by use. There were, however, many obscurities still surrounding the question of the growth of axis-cylinders in relation to the cell bodies or trophic centers, which required to be cleared up. There also remained for solution the question whether in the human cerebral cortex the presence of the dendritic cell-processes and the neuroglia sufficed to account for the relatively large separation of the active cell-bodies, or whether a certain amount of intercellular substance remained which accounted for the appearance in question.

In the field of central localization, the results obtained by Horstmann and by Herrmann through the methods of local electric stimulation of the cortex in the higher anthropoid apes had been corroborated and extended by Sherrington and Grünbaum. Flechsig, in the last chapter of his work on the association centers of the human brain,
was able to show that from thirty to forty "areas" or centers could be mapped out in accordance with their times and rates of development. Important confirmation of the same had come from the researches of Schäffer, of Budapest, and Storch, of Breslau, on general paralysis. Much attention had been devoted to the study of tendon reflexes, the most important and valuable discovery in this direction being the so-called Babinski reflex, which is now accepted as a definite indication of degeneration of the pyramidal tract. The subjects of toxemia and of internal secretion were receiving more attention, and further investigations in these directions were needed to elucidate the pathology of exophthalmic goitre, acromegaly, and allied disorders. Quite recently, Prof. Mills, of Philadelphia, had shown that the Röntgen rays were of use in determining the site and occurrence of certain cerebral tumors. Dr. Henry Head had published a suggestive report upon visceral diseases and the mental changes accompanying them, and there was still great room for the further elucidation of such neuroses as hysteria, neurasthenia, and hypochondriasis, in which mental diseases coexist. On the whole there had been more interest in the realm of neurology; and questions of vast importance were still awaiting solution.

An important research has been published by Prof. Karl Schäffer, of Budapest, on the Topography of the Cortical Degeneration in General Paralysis of the Insane. The author regards his observations as tending to support Flechsig's Association Center of the Brain, and concludes that the morbid process (degeneration of medullated nerve-fibers) affects chiefly those centers, viz.: those in the prefrontal, perietal, insular, and supracallosal regions of the hemisphere. The cortical degeneration in general paralysis is not an irregular, diffuse process, but, on the contrary, a regular, localized, selective, morbid affection of the cortex.

At the suggestion of Prof. Halliburton, a research was undertaken by R. H. C. Gumpertz into the specific gravity of the brain. It had espe
cially been noted by James Crichton Browne "that he had found the specific gravity of the female brain less than that of the male brain, the difference being in the gray matter. In the most complete cases on the subject appeared to be that of Danilewsky, who found the specific gravity of the brain to be 1.038; that of the gray matter, 1.053; and that of the white matter, 1.015; and mean specific gravity of the gray matter, 2.5 millimeters. The author, experimenting upon a larger number of cases of healthy men and women who had suffered from no brain disorder, found as the average specific gravities in the respective parts of the brains of seven men—frontal, 1.035; Rolandic, 1.036; occipital, 1.038; the whole brain, 1.039; and in six women—frontal, 1.036; Rolandic, 1.038; occipital, 1.036; the whole brain, 1.034. These results are somewhat lower than those given by Danilewsky; they show considerable variations between the specific gravities of different parts of the same brain and of different brains in both sexes: and indicate that the average specific gravity is practically identical in both sexes. A low specific gravity of brain does not imply poor quality, for the part which is most important and most active—the gray matter—has a lower specific gravity than the white matter.

A branch of the American Physiological Association by Dr. John Turner in illustration of a paper on some new features in the intimate structure of the human cerebral cortex showed: 1, A beaded network enveloping the pyramidal cells of the cortex and the dendrites; 2, an intercellular plexus of the nerve-fibers not previously demonstrated to exist. The preparations demonstrating these points had been made by placing pieces of the brain tissue directly on removal from the body, and without previous hardening or fixing, into a strong solution containing methylene blue and hydrogen peroxide. From this mixture, after a sufficient time had elapsed, the tissue was transferred to a solution of molybdate of ammonia. The tissue was then, after this fixation, dehydrated, embedded in paraffin, and cut into sections. The beaded network was a network, not of neurological fibers, but of processes of true nerve-cells. It loosely invested the pyramidal cells and their dendrites. It was made up of the fiber ramifications of stouter fibers which could be traced from certain pyriform dark cells in the cerebral cortex. The cells were generally small, and exhibited no signs of any network around them. There seemed, in fact, to be in the cortex of the cerebrum at least two systems of nerve-cells—the pyramidal variety, which were pale under the method of examination employed in the experiments, and the beaded network of nerve-cells. The latter possessed branches which rami
cified and produced by a fusion a true network formed by actual anastomosis. The system of dark cells constituted a continent.

The hypophysia cerebi is described by E. von Cyon in Pflüger's Archiv as having a double function; it controls intracranial blood-pressure and regulates metabolism of the brain, and is affected mechanically by the circumstance that every increase of blood pressure in the brain constitutes a stimulus to the hypophysia and is followed by an increase in the strength and a slowing of the cardiac beats with a slight rise of extracranial pressure. Those rarer and stronger beats of the heart which Cyon names "action pulse," augment the rapidity of the venous blood current, especially in the veins of the thyroid body, and thus remove from the brain the abnormal quantity of blood. There is reason to believe that the same effect is produced by the secretion of the hypophysia, which is probably caused by these coincident and harmoniously acting antagonistic agents. The hypophysia, therefore, is a secondary effect, by violent epileptiform convulsions, which are most easily explained by regarding them as disturbances of the circulation in certain parts of the brain. A great increase in the secretion of urine is observed in all cases of stimulation of the hypophysia.

Prof. W. C. Halliburton and Dr. T. W. Mott introduce a paper on the regeneration of nerves by referring to two opinions prevailing on the subject: one that the new nerve-fibers sprout out from the central stump of the divided nerve; the other that they are of peripheral origin. Those who held the latter view relied on histological evidence. But a strand of cells that looks like a nerve-fiber, inasmuch as it might not be capable of being excited as true nerve-fiber is, or of conducting nerve-impulses as a nerve-fiber can do. These
functional performances were the true criteria for nerve-fibers. Among recent observers, Howell and Huber, who had used both histological and experimental methods, had arrived at the conclusion that the axis-cylinder, the essential portion of a nerve-fiber, had an exclusive central origin; they admitted that the peripheral tissues in which it was embedded were active in preparing and generating a nutritive scaffolding for it. The authors had obtained experimental results which, as far as they at present went, confirmed these views.

The truth of the view, which has long been generally held, that repeated or excessive activity caused fatigue of nerve-endings, but had no effect upon the fibers that conduct the nervous impulses, has been questioned by Herzen, who asserted that after a nerve-trunk had been subjected to repeated stimuli the subsequent response of the nerve fibers was diminished, and that this diminution of effect was a result of the way in which the electric currents used for fatiguing the nerve were applied to it. Were the effect a true fatigue effect, its locus should not be confined to the electrode, but should be distributed throughout the nerve; because the process of conduction of nerve-impulses occupying the whole length of the nerve, the true fatigue which arose as their after-effect is manifested, is a result of the changes which were confined to the immediate neighborhood of the electrode by which the long series of fatigue-producing currents were introduced. But this theory, which is one in which long has been devoted as electrotome. Probably the process involved was one of electrolysis, and certainly its relation to fatigue in the true sense was at most extremely remote.

T. Grigor Brodie and W. D. Halliburton, having observed that the assertion that the nerve fibers are incapable of fatigue rests on the excitation for long periods of time of medullated fibers, determined to repeat the experiments, with some modification, on non-medullated fibers. Selecting the nerves leading to the spleen, they found that even after many hours of stimulation no evidence of such fatigue could be demonstrated. Nevertheless, they obtained proof that certain non-medullated as well as medullated fibers are injuriously affected by prolonged faradic stimulation, and that the spot which has been excited is no longer excitable until a considerable period of rest has elapsed.

Prof. C. S. Sherrington and Dr. A. S. Grünbaum, describing before the Medical Association the experiments they had made upon the motor cortex in anthropoid apes (13 chimpanzees, 2 orangs, and 1 gorilla), mentioned as a most important point brought to light in their researches that the excitability of the motor region, though extending deeply into the Rolandic or central sulcus, did not extend on to the free surface of the post-central region. Hence, they concluded that the results of previous observers had been obtained from observations on monkeys and lower animals; and except for the work of Beever and Horsley upon the orang-utan no observations have been made on anthropoida. Sherrington and Grünbaum, however, as a result of some more extensive work on the same subject, have recently in part confirmed and in part modified our previous knowledge.

The presence of a facial reflex, sometimes known as the extraorbital reflex, has also attracted considerable attention. The manifestation is produced by striking some part of the forehead, and is followed by contraction of the orbicularis, with more or less movement of the eyelids. It is generally found that tapping the frontal region contraction of the corneal reflex takes place on both sides. The path for the reflex passes centripetally through the fibers of the supraorbital nerve to the sensory nucleus of the fifth nerve, and thence to the nucleus of the upper branches of the seventh nerve on both sides. Macartney, in the Neurologisches Centralblatt, says that he found the reflex present in 100 normal persons investigated. Further observation is required from above downward. Movement of the arms was obtained by stimulation just at the border between the external and mesial surfaces of the hemisphere. A further reflex was observed in the vocal cords, and also movement of the mouth and tongue; in the arm area—shoulders, elbow, wrist, fingers, and thumb; in the leg area—toes. In each case was in opposition to the results of previous observers. The authors gave the movements obtained from their different areas broadly as follow: In the face area—the eyelids, brow, jaw, vocal cords, movements, and also movements of the mouth and tongue; in the arm area—shouder's, elbow, wrist, fingers, and thumb; in the leg area—toes. In each case was in opposition to the results of previous observers.
The idea has often been put forward that where an organ has two sets of nerve fibers, the two sets of nerves must have actions which are physiologically antagonistic. The results made known in a paper by C. H. Pagge detailing researches on the innervation of urinary passages in the dog, taken in conjunction with previous work by other observers on the same subject, show that, in the case of those organs, the difference between the two sets of nerves (sympathetic and sacral) is morphological rather than physiological.

Narcotic effects have been found by Dr. Hermann Beyer to be exerted by odorous substances on the sensory and motor nerves of the frog. When the animal was made to breathe air charged with odors, the succession of events resembled that of chloroform narcosis in that occurrence of a preliminary state of excitation followed by motor and sensor paralysis. A considerable number of the substances experimented with, which are named in the author's paper, acted quickly and strongly, while others were less active. The frogs were placed near a sponge or was wet with the odorous substance, but not in contact with it. Lack of reaction in the organization affected were affected. Special experiments indicated that the absorption of vapor is effected to a larger extent by the skin than by the lungs, and that the impaired excitability and coordinating power resulting have a central origin. Experiments on the direct action of odoriferous substances showed a loss of excitability on the part of the nerve exposed, extending gradually upward and more slowly downward.

Special Senses.—A communication has been published in the New York Medical Record by Prof. G. E. de Schweinitz on Delirious Results of Certain Common Drugs and Narcotics on the Organs of Sight, in which the results of observations of the author's practise during recent years in the ophthalmological department of the Philadelphia Hospital are recorded. The most important form of functional visual defect or amblyopia noticed was produced by quinin. It was more common in infants in the belief than in the adults, and it was associated with wearing, with the idiosyncrasies of the patient. With moderate doses, temporary dimness of sight occurred. When the doses were large (20 grains) the results a few days later was what appeared to be a second and more serious form. Blindness of sudden onset and almost complete in degree resulted, and lasted several days. Ophthalmoscopic examination showed the same changes as those observed in the large doses also had toxic effects on the ganglion-cells of the retina. This quinin blindness is described as similar to that caused by salicylates or by antifebrin, and the actual changes are very similar. Iodoform when absorbed from dressings of wounds and burns, or after administration by the mouth, occasionally produced ambylopia. Alcoholic amblyopia was produced by ordinary alcohol, and in a more intense degree by methyl alcohol; and substances in which methyl alcohol was an ingredient had a similar effect. Certain strong forms of tobacco, particularly if smoked in a pipe or on an empty stomach, were specially liable to give rise to ambylopia. Usually, however, several years passed before the vision was thus affected; while an indescribable haze or fog seemed to obscure the view. Pallor of the optic disk and central scotoma for red and green in the field of vision was a prominent feature, and was more intense, the disease progressed more rapidly. The histological investigation showed that the retinal ganglion-cells in the macula lutea underwent degeneration, and some change could be detected in the muscular fibers of the optic nerve. Which of the active principles in tobacco was the actual agent was not determined. Among the forms of ambylopia due to occupation were those occurring among lead-workers and india-rubber workers (in whom the effect was produced by the carbon disulphid used as a solvent for the rubber). Ambylopia was also met with as a result of being exposed to or inhaling fumes of nitrobenzene or dinitrobenzene, a substance which is produced in chemical factories, and is commonly known as essence of almonds.

The photosensitive pigment, or visual purple, which is supposed to belong to the rods only, and not to be present in the cones, has been found by Dr. F. W. Eldridge Green present in the central region of the retina, in which there are cones only and no rods. On examining the retina of the monkey when the animal had been kept in the dark for twenty-four hours in order to increase the amount of visual purple, the central region of vision, the yellow spot, instead of being free from the pigment, was the most purple spot of the whole retina. The purple was, however, seen by microscope but not actually within the cone. The author advanced the theory that the cones were sensitive only to changes in the visual purple, not to light itself.

At the annual meeting of the British Medical Association Dr. F. W. Eldridge Green described his view of the origin of a visual impulse as being that light falling upon the retina liberates visual purple from the rods, and this, being acted on by light, stimulated chemically the cones and an impulse was transmitted along the visual path to the brain and received by a light perceptive center which did not appreciate color but simply light and shade. Color perception was due to a special center separate from the visual center, but closely connected with it, a color being simply a point of difference capable of being seen by this center.

Observations are described by Dr. C. S. Myers as having been made, dealing with cases concerning the smallest musical tone-difference perceptible to the people of Scotland and those of Torres Straits. But little difference in the original capacity to distinguish tones was found between the children of Murray island and those of Aberdeenshire, but with the practical the Scottish children improved very rapidly and uniformly. The power of the only part failed to detect intervals of a semitone. The average difference of frequency of vibration just distinguishable by them was 15 vibrations per second, while for the adult Scotch examined it was 9 vibrations.

In the third volume of the Journal of Physiology, p. 22, Sir W. R. Gowans described a case of disease which suggested strongly that the path for taste reaches the brain by the roots of the fifth nerve, both as regards the front and the back of the tongue. Since the article was published the author has met with strong confirmatory evidence from cases of disease. But he regards such evidence as unimportant when compared with the proof of the fact supplied by the modern surgical procedure of the removal of the Gasserian ganglion and the adjacent part of the fifth nerve, known as Krause's operation for neuralgia. Five cases of operations are adduced in the author's. If the patient was intertemporal, the disease progressed more rapidly. The histological investigation showed that the retinal ganglion-cells in the macula lutea
performed. In some earlier cases taste was not tested, so that as far as the observations of this group of authorities go the result has been constant. Mr. Horsley is quoted as representing that in the cases he has operated on in private in which he has afterward tested taste, he has in each case found it lost. These facts are regarded as constituting strong evidence that the suggestion of disease was correct and that all the fibers of taste, at least in most persons, reach the brain by the fifth nerve. The path by which the taste impressions reach the fifth nerve deserves further investigation, but hardly lends itself to experimental research.

Miscellaneous.—The results of studies of the effect of marching and carrying of loads, as in military service, upon 5 students of the Kaiser Wilhelm Academie have been published by Prof. Zuntz, of the Royal Agricultural College, Berlin, and Chief-Surgeon Schomberg. The experiments were made during April, May, June, and July, under stated and uniform regulations, and the condition of the subjects was examined before and after, and sometimes during the march and on return, and any functions and functions likely to be influenced by carrying heavily loaded knapsacks. The tests included spaghmographic tracings, enumeration of blood-corpuscles, estimation of the specific gravity of the blood, reaction of the muscles and nerves, measurements of vital capacity, and records of variations in urinary constituents. A second and more complete examination was carried out with two of the students to determine the effect of marches on metabolism. Experiments were also made with lighter weights and with loads of 22, 27, and 31 kilograms. The general condition of the students improved, excessive fat disappeared, and the body weight was reduced by from 1.5 to 3.5 kilograms; the cardiac systole was prolonged and the diastole was shortened as the weights carried were increased. The pulse increased to 140 and 150 beats a minute, and diuresis became marked as the duration of the marches increased.

Among 89 observations the cardiac area of dulness showed marked increase in 64, and the hepatic area in 67 instances after march. The increase, in some cases, was due to dilatation of the right and not of the left side of the heart, and to be produced by a general dilatation of the venous circulation. The pulse was characterized by a "run down," as it is called, and a fullness of the pulse was due to a general dilatation of the left side of the heart. Observations on other organs and functions did not produce so interesting and positive results. The specific gravity of the blood increased only by 0.006, and the red blood-corpuscles by 9 per cent. after the heavier march. An apparent increase in the white corpuscles was due to poly-nuclear cells being carried into the circulation from the walls of the larger veins in consequence of increased cardiac action; but the blood resumed its normal condition on the day following the march. The vital capacity of the lungs was increased up to a certain point by graduated training, but marked diminution occurred in the marches with the heaviest loads, the result being associated with the dilatation of the heart and liver and the venous stagnation already noticed. The increase in frequency of respiration associated with exercise gradually fell to normal during the halts. The lower part of the heart had become well marked the increase remained as high as 40 per cent. above normal even after a halt of thirty minutes. The heat production of the work done in marching was estimated to be enough to raise the bodily temperature 1° C. in 8.7 minutes. From experiments on the influence of marches on nervous energy-producing material, the authors conclude that in continuous heavy marching the carbohydrate consumed in the rations are not sufficient to replace the waste; and that a day's rest is required after every three days' marching to enable the brain to recover its normal power. It is understood that the German military authorities have accepted the investigators' conclusions as authoritative; and the regulations on physical training in Germany are evidently inspired by them.

A general review of the results of the researches of Ehrlich and his colleagues and followers on the subject of immunity was given by Prof. W. C. Halliburton in his address at the British Association, who said that the power the blood possesses of slaying bacteria was first discovered when the effort was made to grow various kinds of bacteria in it, it having been looked upon as probable that the blood would prove a suitable medium for the parasite. Instead, the blood proved to be an effective barrier against attacks from the organism. It is the opposite effect. The chemical characters of the substances which kill the bacteria were not fully known; but absence of knowledge on this particular point had not prevented important discoveries from being made. So far as was known at present, the substances in question were proteid in nature. The bactericidal powers of blood were washed away by heating it for an hour to 56° C. Whether the substances were enzymes was disputed; so also was the question whether they are derived from the leucocytes. The substances are sometimes called alexins, but the more usual name now applied to them is bacterio-lysins. Closely allied to the bactericidal power of blood or blood-serum, was its globulidal power, by which it is meant that the blood-serum of one animal has the power of dissolving the red blood-corpuscles of another species. The bactericidal power of the blood was closely related to its alkalinity and increased. Normal blood possessed a certain amount of substances which were inimical to the life of our bacterial foes. When a person gets "run down," as it is called, anaemia was found due to dilatation of the right side of the heart, and to be produced by a general stagnation of the venous circulation. The power of blood-serum of bacterio-lysins, the authors say, is "march dilatation of the left side of the heart." Observations on other organs and functions did not produce so interesting and positive results. The specific gravity of the blood increased only by 0.006, and the red blood-corpuscles by 9 per cent. after the heavier march. An apparent increase in the white corpuscles was due to poly-nuclear cells being carried into the circulation from the walls of the larger veins in consequence of increased cardiac action; but the blood resumed its normal condition on the day following the march. The vital capacity of the lungs was increased up to a certain point by graduated training, but marked diminution occurred in the marches with the heaviest loads, the result being associated with the dilatation of the heart and liver and the venous stagnation already noticed. The increase in frequency of respiration associated with exercise gradually fell to normal during the halts. The lower part of the heart had become well marked the increase remained as high as 40 per cent. above normal even after a halt of thirty minutes. The heat production of the work done in marching was estimated to be enough to raise the bodily temperature 1° C. in 8.7 minutes. From experiments on the influence of marches on nervous energy-producing material, the authors conclude that in continuous heavy marching the carbohydrate consumed in the rations are not sufficient to replace the waste; and that a day's rest is required after every three days' marching to enable the brain to recover its normal power. It is understood that the German military authorities have accepted the investigators' conclusions as authoritative; and the regulations on physical training in Germany are evidently inspired by them.

In the hypothesis by which he seeks to explain the phenomena of immunity, Ehrlich supposes that the toxins are capable of uniting with the protoplasm of living cells by possessing groups of atoms like those by which nutritive proteids are united to cells during normal assimilation, and which he termed left-side heptophor groups; while the groups to which these are attached in the cells are termed receptor groups. The introduction of a toxin stimulates an excessive production of receptors, which are finally thrown out
into the circulation, and the free circulating receptors constitute the antitoxin. The comparison of the process of assimilation is justified by the fact that non-toxic substances like milk introduced gradually by successive doses into the blood-serum cause the formation of substances capable of coagulating them. Evidence is gradually being collected that other cells than those of the blood may by similar measures be rendered capable of producing a corresponding protective mechanism.

In connection with some experimental researches in the metabolism of pulmonary tuberculosiis Dr. Francis W. Goodbody, Dr. Noel D. Bardswell, and J. E. Chapman made studies of the metabolism of ordinary individuals, and of the effect of a greatly increased diet on them. Three cases were experimented upon, the conditions of which and their treatment and regimen are described in detail in the paper of the authors in the Journal of Physiology (vol. xxvili, No. 4). The conclusions which seem to the authors justified by the results are expressed by them as follows: 1. The lasting bad effects of an excessive diet on normal individuals. 2. The very small quantity of nitrogen retained except when extreme forced feeding is employed. 3. The increased quantity of urea passed and of very high specific gravity, more or less proportional to the increased intake of fluids, this being contrary to what has been observed in pathologic conditions. 4. The marked increase in the quantity of total nitrogen in the urine on forced feeding, the portion of this substance passed as urea remaining normal all through, and there being no much difference in the proportion of uric acid and ammonia. 5. The marked increase in the inorganic constituents of the urine analyzed during the period of forced feeding. 6. The fact that, contrary to what was to be expected, there was no marked increase in the total quantity of nitrogen in the feces on the forced feeding except in case 3, while, as a rule, there was an enormous increase in the quantity of fats. 7. The temporary increase in the absorption of nitrogen on forced feeding as against the tendency to diminution in the rate of absorption of fats during the same period. 8. The very rapid increase in weight during the period of forced feeding and the very striking rapidity with which this increase disappeared. 9. The marked decrease in the resistance of the reaction elicited by the nitrogen on return of the frozen skin to the original temperature, the resistance being reduced to one tenth of the normal, and the response to excitation abolished.

Indications were found by Uhlenbarth, and the discovery has been confirmed by Levene, of the existence of a biological relationship between the blood and the muscle proteins—a similarity in the biological sense having been observed between proteins having a different chemical individuality, but obtained from the same animal. It was found that the sera of rabbits immunized for two months with milk would form precipitates with milk, casein, milk-albumin, and beef-serum, but not with the entire white of an egg, egg-albumin, egg-globulin, chicken-serum, and sheep hemoglobin. Serums of animals that had been treated with injections of the white of an egg for two months formed precipitates with egg-albumin, egg-globulin, egg-subglobulin, yolk of egg, and turkey-serum. No precipitate was formed on the addition of milk proteins, beef-serum, or of the different proteins of the latter, of guinea pig serum, or of serum of the normal rabbit.

In the meeting of the National Academy of Sci-
A preliminary report on Heredity in Alcoholism, by Dr. T. D. Crothers, chairman of a committee of physicians appointed at a Medical Temperance Congress in 1908, embodies the results of the investigation of 1,744 cases of inebriety carried on during thirteen years. The facts were carefully ascertained and collected, and the inquiry, besides the personal history, included every condition and circumstance which could have an etiological bearing in the development of inebriety. Of the 1,744 inebriates with trustworthy histories, 1,080 had a direct history of alcoholic heredity; 390 cases were traceable to bodily diseases, injury, or shocks; 180 were attributable to starvation and poisoning; while 85 cases were due to ignorance, bad surroundings, and imitation (or mental contagion). In only 9 cases were the causes so complex or so obscure that no classification could be made of them. The central conclusion from the study was that the injury from alcohol to the cells and nerve-tissues is transmitted to the next generation in some form or other—as a drink-craving, a neurasthenia, or a mental defect, etc.—with absolute certainty. Regarding the 1,080 patients with a direct alcoholic heredity, the report says: "In most there seemed to be largely transmitted a special disposition to spiritueuse diathesis [instability] with want of self-control, and often a species of psychical pain and unrest, which found the greatest relief from the use of spirits." In 430 of the cases no heredity was traced.

A study by Dr. R. Hunt, of Johns Hopkins University, of the relative toxicity of methyl alcohol and the special pathological changes produced by its action on the nervous system gave results indicating that while coma of ethyl alcohol lasts perhaps not longer than six hours, or twenty hours at the most, that from methyl alcohol may last two, three, or even four days. Experiments on lower animals showed that this was not due to impurities, but that the pure drug would produce the same effect. In lethal doses methyl alcohol produced death more speedily than ethyl alcohol. But in chronic intoxication methyl alcohol was retained longer in the cerebro-spinal fluid and nerve-tissues than ethyl alcohol. The results of the author's investigations have convinced him that the cerebro-spinal fluid is a true secretion and is not lymph in the ordinary sense of the word. He attributes the fact that the cerebro-spinal fluid is a continual secretion to the substances termed "lymphagogues" by Heidenhain—namely, peptone and the extract of the heads of leeches, glycose, and chlorid and iodid of sodium. In no instance was there any acceleration in the flow of the cerebrospinal fluid from fistulous openings.

An investigation of the cerebro-spinal fluid was suggested to St. Clair Thomson, M.D., of the Throst Hospital, London, by the observation of a young woman in good health suffering from its escape through the nose. The author examined the literature of the subject and found about 20 similar observations recorded. The liquid was not diagnosed in all the cases as cerebro-spinal fluid, but its identity with it seemed indubitable in 8 of the cases, very probable in 12 and possible in 18. In many of the cases the hydrophobia was associated with cerebral symptoms and with optic neuritis. In particular cases under the author's own observation, this has been confirmed by analysis by Dr. Halliburton. Accounts of these cases, with observations on the composition and functions of the cerebro-spinal fluid, are given by the author, in a letter which he has recently published on the subject.
icient for the needs of government, and after it had gone into operation passed on July 4, 1901, a joint resolution notifying the President of the United States that the aid was no longer needed, in consequence of which the President on July 25, 1901, proclaimed the cessation of all tariff duties between Porto Rico and the United States. The quota of Porto Rico is appointed by the President of the United States. Charles H. Allen, appointed Governor on May 1, 1900, at the institution of local self-government, was succeeded on July 23, 1900, by William H. Hunt, whose official staff at the beginning of 1902 was composed as follows: Secretary, Charles Hartzel; Attorney-General, James S. Harlan; Treasurer, W. F. Willoughby; Auditor, John R. Garrison; Commissioner of Education, Martin G. Brumbaugh, succeeded by Samuel M. Lindsay; Commissioner of the Interior, William H. Elliot. The Resident Commissioner of Porto Rico in Washington is Federico Degetau, elected Nov. 4, 1902. The Executive Council is the upper house of the Legislative Assembly and is the popularly elected House of Delegates lower. The Governor and the chief American officials with 5 native Porto Ricans appointed by the President constitute the Executive Council. The House of Delegates has 25 members. A Supreme Court was instituted, with Josè S. Quinones as Chief Justice and Louis Sulzbacher, of Missouri, and José C. Fernandez, José M. Figueras, and Rafael Nieto as Associate judges. The Spanish code of laws was continued, with modifications recommended by a special commission bringing it into harmony with the laws of the United States. Gov. Allen resigned, and William H. Hunt, of Montana, was appointed his successor. The Governor and the Secretary receive instructions from the State Department at Washington, the Treasurer and Auditor from the Treasury Department. A battle of native troops organized in 1899 has been retained in the United States service, and forms the only military force on the island with the exception of detachments of the United States forts. These native troops are to be disbanded.

Area and Population.—The area of the island is estimated at 3,600 square miles. The population in 1901 amounted to 690,941. Many workers on the sugar plantations were induced to emigrate with their families to the Hawaiian Islands and to Cuba, and others employed in the tobacco industry went to the latter island, but this emigration was counterbalanced by immigration from Santo Domingo, Cuba, and other West Indian islands. The density of population is 564 to the square mile and the increase in population was 16 per cent. from 1897 to 1900 according to census returns. Of the inhabitants of the island 569,426, or 61.8 per cent., are white, though many of these show an infusion of African blood. The number of black and colored inhabitants is 363,817, or 38.2 per cent. The number of foreigners in 1900 was 13,572, or 1.5 per cent. of the population, and these include 7,290 Spanish residents, the great majority of the Spaniards having elected to retain their nationality. The proportion of the totally illiterate to the population in 1900 was 4.9 per cent. The commercial index is making good progress. There were at the end of 1902 in the schools, on which $192,896 had already been expended for buildings, 1,126 teachers, and over 24,000 pupils. The public expenditure for education is fixed at $800,000. Two industrial schools were opened in the fall of 1902. San Juan, the capital, has 32,048 inhabitants; Ponce, 27,952; Mayaguez, 15,167.

Finances.—The insular revenues are sufficient for the needs of the administration, and in his message to the Legislature the Governor advised no increase in direct taxation in 1905. The sum of $600,000 raised by taxes in 1904 was fixed at the time of the cessation of the special tariff on Porto Rican products was set apart as a fund for permanent public improvements in Porto Rico. Its expenditure for this purpose gave employment to native laborers and imparted an impulse to the commercial and industrial energies of the country which had been paralyzed by the interruption of the former trade with Spain and Cuba, and by the effects of the hurricane of 1899. At the close of 1902, besides $885,633 of trust funds, there was a balance on hand of $378,670 from insular revenues and $431,129 due from the United States.

Commerce and Production.—The most valuable product is coffee, of which 60,000,000 pounds are gathered annually from 200,000 acres. The coffee finds a ready demand in Austria, France, and other Continental countries and its superior quality is beginning to be appreciated in the United States. The aggregate value of coffee, in 1901, was $200,000 per cent., in value of the total export trade, and sugar 28 per cent., after which come tobacco, honey, molasses, cattle, timber, and hides. The yield of coffee was 200,000 sacks; the production of sugar, to more than 500 pounds an acre. The crop in 1901 was 200,000 bags. In 1902 it approximated 330,000 bags. Oranges, bananas, and pineapples are for export and in increasing quantities. There is a variety of pineapple that attains the weight of 25 pounds. Bananas grown without cultivation are of fine quality. Limes and lemons grow wild in abundance. Silkworms have been raised experimentally that produce cocoons twice or thrice the ordinary size and of the finest quality, fed on a plant growing in abundance on which silk-worms were already raised in Venezuela. A company has been organized to grow Sea Island and Egyptian cotton, for which the soil and climate have been found well adapted. Rice is grown on the island, but more is imported. Cacao, cocoa beans, and vegetables of all kinds are raised. The sugar plantations cover 50,000 acres, yielding nearly 100,000 tons in 1900. The yield of tobacco was 5,000,000 pounds in 1902. The principal mineral product is salt, of which 10,000,000 pounds are annually produced by the salt-works of Guanico, Salina, and Cape Rojo. Gold is found, and carbide and sulfur of copper and magnetic iron ore are abundant. Lignite, amber, and marble are other mineral products. There were 280,000 cattle in 1899. Oxen do the heavy hauling. About 50,000 cattle are slaughtered or exported annually. The grazing on the island is unexcelled. There are 130,000 acres of blue grass. Cattle are shipped to Trinidad, St. Lucia, Martinique, and Guadeloupe. Hogs thrive particularly well. Poultry is easily kept. Sugar, rum, cigars, and cigarettes are now the principal manufactures. Wood manufactures, matches, sots, and vermicelli are newer industrial products. There is unlimited waterpower and cheap fuel. The plating of hats is a house handicap which has expanded into a large business. The commercial index is making good progress. There were at the end of 1902 in the schools, on which $192,896 had already been expended for buildings, 1,126 teachers, and over 24,000 pupils. The public expenditure for education is fixed at $800,000. Two industrial schools were opened in the fall of 1902. San Juan, the capital, has 32,048 inhabitants; Ponce, 27,952; Mayaguez, 15,167.

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under the direction of Frank D. Gardner at Rio Piedras, near San Juan. Experiments have been conducted to improve the quality and yield of coffee by selection and by proper shading of the shrubs; also in exterminating the mole cricket, which destroys young tobacco and sugar plants. Selection and fertilization of sugar-cane, rice cultivation; the fermentation and grading of tobacco, dairying, forestry methods, culture and marketing of fruits, and introduction of cacao and fiber plants are other problems that are studied. The chief imports are cotton goods, rice, provisions, codfish, and hardware and tools.

The total value of imports in 1901 was $9,367,000, and of exports $8,654,000. Of the imports, $7,415,000 came from the United States, $808,000 from Spain, $375,000 from Great Britain, $167,000 from France, and $152,000 from Germany. Of the exports, $5,661,000 went to the United States, $1,110,000 to Cuba, $580,000 to Spain, $475,000 to France, and $141,000 to Germany. The total value of exports in 1902 was $12,889,926, showing an increase of 54.7 per cent; in imports from foreign countries and 48.6 per cent. In exports to the United States. The increase was mainly in sugar, cigars and cigarettes, straw hats, and coffee. A decrease was shown in imports of straw hats, which were shipped to the amount of $204,500. While over $3,000,000 worth of Porto Rican coffee went to Europe, the takings of the American markets were among the imports were codfish of the value of $400,000 from Nova Scotia and $500,000 worth of potatoes from Spain.

Railroads and Telegraphs.—There are 159 miles of completed railroads in Porto Rico, and 170 miles are building. The telegraphs have a length of 470 miles, connecting the principal ports with San Juan, the capital, which is connected by cables with St. Thomas and Jamaica. Since the extension of the telegraphs under American administration they have yielded a profit to the insular treasury.

Government and Legislation.—Porto Rico became a Territory of the United States on July 25, 1901, but not subject to the United States Constitution. By a decision of the United States Supreme Court rendered on Dec. 2, 1901, which sustained the right of Congress to impose customs duties on Porto Rican products imported into the United States and a separate tariff for Porto Rico, the natives and citizens of Porto Rico are not citizens of the United States unless they become naturalized like any aliens eligible for citizenship. Culebra and a site at San Juan have been taken and fitted as United States naval stations, and the title, still remaining in the insular government, will be transferred to the United States by act of the Legislature.

A general election was held throughout Porto Rico simultaneously with the elections in the United States on Nov. 3. The Republican party won a victory everywhere over the Federal Democrats, obtaining every seat in the House of Delegates. In most districts the Federalists, as in 1901, refused to register, complaining that the election judges would not permit free and full registration, and in some places disturbances occurred on registration day. An epidemic of smallpox caused excessive mortality among the population under the Government's supervision, compulsory, a measure that reduced the death-rate from this disease to almost nothing. Anemia has become much less prevalent with the general improvement of public and private sanitation. There were 15,000 fewer deaths in the year ending June 30, 1902, than in the previous year. The criminal code adopted for Porto Rico, modeled largely on that of California, has worked satisfactorily. A new corporation law went into effect on July 1.

PORTUGAL, a kingdom in southwestern Europe. The throne of the family of Saxe-Coburg-Braganza. The reigning sovereign is King Carlos I, born Sept. 28, 1863, successor to his father, Luiz I, who died Oct. 19, 1889. The heir apparent is Luis Philipp, Duke of Braganza, born March 21, 1887. The legislative power is vested in the Cortes, which consists of a Chamber of Peers, containing 52 hereditary, 13 spiritual, and 90 nominated members, and a Chamber of Deputies, containing 120 members elected by the direct votes of all adult male citizens who possess an elementary education or an income of 500 milreis. The Cabinet at the beginning of 1900 was composed as follows: Prime Minister and Minister of the Interior, E. R. Hintze Ribeiro; Minister of Foreign Affairs ad interim, Ferdinando Mattoso; Minister of Finance ad interim, Ferdinando Mattoso; Minister of Justice and Public Worship, A. Campos Henriquez; Minister of War, L. A. Pimentel Pinto; Minister of Marine and Navy and the Colonies, A. Feiteira de Sousa; Minister of Public Works, Industry, and Commerce, Manuel A. de Vargas.

Area and Population.—The area and population of the kingdom according to the preliminary reports of the census of Dec. 1, 1900, are given in the following table:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Square miles</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entre Mimoso Douro</td>
<td>8,807</td>
<td>1,173,105</td>
</tr>
<tr>
<td>Tras os Montes</td>
<td>4,338</td>
<td>429,170</td>
</tr>
<tr>
<td>Beira</td>
<td>9,240</td>
<td>1,218,408</td>
</tr>
<tr>
<td>Estremadura</td>
<td>6,976</td>
<td>1,052,583</td>
</tr>
<tr>
<td>Alentejo</td>
<td>4,642</td>
<td>418,581</td>
</tr>
<tr>
<td>Algarve</td>
<td>1,075</td>
<td>284,561</td>
</tr>
<tr>
<td>Azores</td>
<td>1,005</td>
<td>268,474</td>
</tr>
<tr>
<td>Madeira</td>
<td>605</td>
<td>150,583</td>
</tr>
<tr>
<td>Total</td>
<td>36,089</td>
<td>5,488,569</td>
</tr>
</tbody>
</table>

The population consisted of 2,507,570 males and 2,581,399 females. The increase of population in ten years was 378,930, showing an annual rate of 0.75 per cent. The number of emigrants in 1900 was 21,206, of whom 13,190,960 went to Brazil, chiefly Brazil, 1,928 to Africa, 445 to European countries, and 23 to Asia and Oceania. The population of the chief towns in 1900 was as follows: Lisbon, the capital, 357,000; Oporto, 172,421; Braga, 54,309; Setubal, 21,819; Coimbra, 18,424.

Finances.—The revenue for 1902 was estimated at 53,269,747 milreis, and expenditure at 55,209,747 milreis. For 1903 the estimate of revenue was 53,991,074 milreis from ordinary and 922,000 from extraordinary sources; total, 54,913,074 milreis. The estimate of expenditure for ordinary purposes was 54,418,810 milreis, and for extraordinary purposes 1,445,125 milreis; total, 55,881,938 milreis, showing a deficit of 948,944 milreis. Of the ordinary receipts according to the estimates 13,180,900 milreis are derived from direct taxes, 3,323,000 milreis from stamps and registration, 25,172,030 milreis from indirect taxes, 1,107,250 milreis from additional taxes, 3,906,176 milreis from national property and confiscatory sources, and 4,958,158 milreis are recettes d’ordre. Of the ordinary expenditures 9,718,008 milreis are for the civil list, the Cortes, etc., 20,739,111 milreis for the public and private sanitation. There were 15,000 fewer deaths in the year end-
miles for the Ministry of the Interior, 1,076,438 miles for the Ministry of Justice and Worship, 6,405,576 miles for the Ministry of War, 4,188, 842,403 miles for the Ministry of Marine and Colonies, 330,732 miles for the Ministry of Foreign Affairs, 4,782,144 miles for the Ministry of Public Works, Commerce, Agriculture and Industry, 50,338 miles for the deposits of the Government. The receipts of the Government for the financial year 1903 showed a slight falling off, being estimated late in 1902 at about 30,000,000 miles. The expenses increased enormously over the previous budget and over the estimates, being at the rate of 65,000,000 miles a year. There were 2,000 more officials to be paid and the expense of the public debt was increased to 30,000,000 miles. The bank-notes in circulation amounted to 80,000,000 miles, and the Government intended to issue more in spite of a rising price.

The public debt in 1901 consisted of £4,172,171 sterling of external 3 per cent. consolidated bonds, £1,813,148 of 4 per cent. and £1,274,154 of 44 per cent. redeemable external bonds, and £2,388,021 of tobacco bonds paying 44 per cent., making the total external debt proper £567,049,944, besides which there were £296,622,786 of internal 3 per cent. bonds largely held abroad, which when converted into a total of gold at 75 3/4 gives including £51,126,640 of 4 and 44 per cent. internal bonds and the floating debt, which on Jan. 1, 1901, amounted to £1,557,484 miles.

The Army and Navy. — All young men are liable to military service for three years in the active army, five in the first reserve, and seven years in the second reserve. The annual contingent fixed by the Cortes for 1900 was 16,000 for the army and 1,000 for the navy. There are 24 conscription and reserve districts in Continental Portugal and 3 in the islands. The army consists of 24 infantry regiments, 3 battalions; 3 regiments of artillery; 60 shells, 12 of 28-pounders, 10 of 32-pounders, 10 of 60-pounders, and 10 of 77-pounders; 35 officers of artillery, each of 4 squadrions; 6 regiments of field-artillery, each of 6 batteries; 2 batteries of horse-artillery; 6 groups of fortress-artillery, each of 3 batteries; 4 independent battalions of engineers; 1 regiment of engineers; 8 companies of sappers, 2 of pontoniers, 1 of telegraphists, and 1 of railroad troops; and independent of these 1 company of fortress sappers, 1 company of telephone operators, and 18,927 men in the infantry and rifle; total peace effective, 1,787 officers and 31,281 non-commissioned officers and men, with 190 guns and 6,470 horses and mules. There are besides 81 infantry officers and 297 men in reserve depots, 80 officers and 2,176 men in the municipal guards, and 100 officers and 4,022 men in the fiscal guard. The war effective of the active army comprises 80 engineer officers and 3,740 men, 420 artillery officers and 12,319 men, 330 cavalry officers and 7,260 men, 1,779 infantry officers and 85,200 men; total, 2,600 officers and 106,523 men, with 240 guns and 14,487 horses and mules. The reserve troops number 1,447 officers and 62,798 men, with 2,177 and 51,152 men, making the total war strength 4,056 officers and 171,324 men, with 336 guns and 19,600 horses and mules. The navy consists of the reconstructed ironclad Vouga de Gama, 1,820 tons, the protected cruiser Don Carlos, 4,253 tons, armed with 4-inch, 8 4.7- inch, 12 three-pounder and smaller quick-firers and machine-guns and having a speed of 22 knots; the protected cruisers S. Benedita, 1,179 tons, of Raphina, of 1,800 tons, and the smaller Adamantina and Doha Amelia; 2 old cruisers; 20 gunboats, of 100 to 800 tons; the destroyer Tejo, of 530 tons; 18 river gunboats and other craft, with 17 masts and 3 train-sloops. The third-class cruiser Pavia, built at Lisbon, was completed in 1902.

Commerce and Production. — Only 54.2 per cent. of the area of the Iugal is productive. Vineyards cover 2.2 per cent. of the total area, fruit orchards 7.2 per cent., forests 2.9 per cent., pasture 25.7 per cent., cereal crops 12.5 per cent., and legumes and oil 20.7 per cent. Wine is the chief product of the country. The wine-crop in 1902 was excessive, causing loss to growers and merchants. The Government and the wine-growers have made extraordinary efforts in recent years to produce and find foreign markets for light red and white wines, good and uniform in quality and cheap in price. Olive-oil, figs, tomatoes, onions, oranges, and potatoes are exported. The mineral products include copper, sulfur, iron, lead, tin, manganese, arsenic, anthracite coal, salt, gypsum, and marble. The total value of ores mined in 1900 was 2,116,718 miles. There were 13,909,689 of coal, including 6,126,640 of 4 and 44 per cent. internal coal and the floating debt, which on Jan. 1, 1901, amounted to 51,557,484 miles.

The annual value of sardines, tunny, and other fish caught is about 3,750,000 miles. Since the adoption of high protection in 1891 a multitude of factories has sprung up around Lisbon and Oporto, and these have increased wages and raised the general standard of living, while making the cost of living much higher and for the agricultural classes much the same as in Great Britain. The total value of imports in 1900 was 60,231,713 miles, and of exports 32,584,033 miles. The imports of coal were 5,547,049 miles value; of wheat, 4,972,653 miles; of cotton, 4,475,028 miles; of cotton goods and yarn, 2,990,048 miles; of codfish, 2,821,347 miles; of iron, 2,601,877 miles; of sugar, 2,243,750 miles; of leather and hides, 1,711,163 miles; of wool, 1,467,410 miles; of woollen goods and yarn, 1,289,086 miles; of cattle, 1,156,030 miles; of tobacco leaf, 568,328 miles; of coffee, 565,818 miles; of oranges, 1,925,538 miles. The exports, consisting of 52,290,370 liters of ordinary wine and 30,575,720 liters of liqueur wine, this last comprising 27,575,720 liters of sherry and 2,999,090 liters of ports and 2,992,011 of torpedoes. Great Britain, and Portuguese colonies take nearly all the wine. The exports of cork in 1900 were 2,454,154 miles in value; of cotton goods, 2,138,583 miles; of sardines, 1,298,150 miles; of copper ore, 1,092,731 miles; of olive-oil, 694,537 miles; of cattle, 468,180 miles; of eggs, 417,589 miles; of almonds, 354,920 miles; of horses, 348,294 miles; of tunny, 302,513 miles; of figs, 275,294 miles; of pineapples, 220,737 miles; of onions, 152,585 miles. Imports of animals were valued at 2,831,514 miles in 1900, and exports at 3,846,428 miles; imports of raw materials at 27,388,746 miles, and exports at 5,800,481 miles; imports of textiles at 6,514,690 miles, and exports at 2,542,418 miles; imports of articles of food at 15,367,495 miles, and exports at 16,363,438 miles; imports of machinery at 3,522,483 miles, and exports at 155,472 miles; imports of manufactured articles at 4,016,532 miles, and exports at 2,277,222 miles; raw material at 87,997 miles; imports of coin and bullion at 482,281 miles, and exports at 1,636,388 miles. Of the total imports in 1899, amounting to 31,538,466 miles, 23 per cent. came from Great Britain, 16 per cent. from United
States, 14 per cent. from Germany, 8 per cent. from France, 7 per cent. from Spain, and 22 per cent. from other countries. Of the total export, valued at 30,020,204 milreis, 27 per cent. went to Great Britain, 20 per cent. to Brazil, 19 per cent. to Portuguese colonies, 12 per cent. to Spain, and 22 per cent. to other countries. Germany was the largest, and other Continental countries have displaced England in some branches of the import trade. In spite of the chronic financial difficulties of the Government the foreign trade is expanding.

Navigation.—The number of vessels engaged in foreign commerce entered at Portuguese ports during 1900 amounted, of 351,730 tons; cleared, 6,294, of 9,975,553 tons. Of these the number entered with cargoes was 4,415, of 6,365,911 tons; cleared with cargoes, 4,132, of 1,256,048 tons. The amount of internal despatches in 1900 was 4,511, of 1,301,949 tons; cleared, 4,132, of 1,256,048 tons.

The merchant navy on Jan. 1, 1900, consisted of 292 vessels, of 95,775 tons, excluding all below 500 tons.

Railroads, Posts, and Telegraphs.—The railroads in operation in 1901 had a total length of 1,464 miles, of which the Government owned 58 per cent. The number of passengers carried in 1899 was 11,404,764; tons of goods, 2,430,981; net earnings, 3,539,700 milreis.

The number of internal letters, newspapers, and other mail-matter carried by the post-office during 1900 was 4,855,714; international mail, 5,872,927.

Political and Financial Situation.—The Government in 1902 made an arrangement with the foreign bondholders for the resumption of the external debt by which the reduced interest on the bonds was again increased by 50 per cent. General commotion was produced by this and the alleged general financial mismanagement of the Government. Riots were started at Oporto, and from there disturbances spread to other parts of the country. At Coimbra the students created a political party and the tradition of the old universities was revived when called upon to interfere. The university was closed on May 2. Although shouts were raised for the republic, the movement was mainly directed against the ministers. On Apr. 21, 1902, the Cortes finally passed the House of Peers by 49 votes to 35 on May 10, after which the Cortes were closed, to meet again on Jan. 2, 1903.

The Portuguese possessions in Asia and Africa were acquired when Portugal was a great maritime and commercial power. The colonies that remain are not commercially important and are a financial burden which is borne, as was that of Spain, from sentiments of national honor and historical pride. In recent times the Government has resorted to the plan of entrusting the development of the natural resources of the colonies to chartered companies, to which foreigners have contributed capital though their charters contain restrictions intended to safeguard their Portuguese nationality. The Minister of Finance estimated in 1890 that the Government had expended in thirty years at least 67,500,000 milreis on the colonies.

Portugal possesses, on the Malabar coast, Damao on the coast of Bombay, and the island of Diu west of it. Goa has an area of 1,380 square miles and a population of 494,836, among whom 97,300 are Hindus. They resemble the Hindus of India in blood. The production of salt by evaporation is the main industry, and the annual production is about 12,200 tons. There is a railroad, 51 miles long, connecting the port with the network of British India, and a number of coasting vessels are conveyed into the interior. The imports by sea and land amounted to 5,483,924 rupias in 1900. Exports, 1,502,587 rupias; transit trade, 5,719,122 rupias. The revenue for 1902 was estimated at 1,019,888 milreis; expenditure, 1,028,420 milreis. The military force is 1,263 men, of whom 786 are natives. Damao and Diu, which also produce salt, have a combined area of 168 square miles and 77,454 inhabitants. They are governed from Goa. Macao is an island at the mouth of the Canton river, where 3,106 indigenous Portuguese, 615 European Portuguese, 171 Portuguese from other colonies, 161 foreigners, and 74,508 Chinese live on an area of 4 square miles. A lively junk trade is carried on. The smuggling of opium and other articles has been checked by the establishment of a Chinese custom-house in the port. The manufacture of smoking opium for export to the United States and Australia was last a profitable industry, but this is now declining. The value of manufactured opium exported in 1898 was 1,387,202 taels. Most of the trade of the port is carried on by Chinese, and the military force of 486 men, including 164 natives. The revenue for 1902 was estimated at 627,534 milreis, and expenditure at 420,342 milreis. The total value of imports in 1900 was 17,020,539 in silver, and of exports 14,068,209. The colony of Timor was administered until 1896 from Macao, which in 1902 contributed from its revenue 12,400 milreis, making the total revenue of Timor 113,382 milreis, while the expenditure was 164, 396 milreis. The Portuguese part of the island of Timor not having been delimited from the Dutch part, although a joint delimitation was provided for in the treaty of 1859, a new convention was recently concluded on this matter. The Portuguese part is estimated to contain 7,458 square miles, with a population of 200,000. There is a military force of 323 men, of whom 212 are natives. The imports in 1899 were 186,461 milreis in value; exports, chiefly consisting of coffee and wax, 124,525 milreis.

The Cape Verde Islands, off the west coast of Africa, have an area of 1,480 square miles, with 147,424 inhabitants according to the census of Dec. 31, 1900, of whom 100,341 were males and 78,631 females, the total comprising 3,856 whites, 94,639 colored, and 48,929 negroes. The number of foreigners was 245. The military force is 264 men, of whom 186 are natives. Coffee, medicinal plants, and millet are the chief products. The revenue for 1902 was estimated at 419,200 milreis, and expenditure at 302,328 milreis. The value of imports in 1900 was 2,343,214 milreis; that of exports, 351,948 milreis. The number of vessels that visited the ports during 1900 was 3,841, of 4,736,609 tons, inclusive of 1,424 coasting vessels. Portuguese Guineas, on the Senegale coast opposite the Cape Verde Islands, has an area of 4,440 square miles, with about 820,000 inhabitants. The revenue for 1902 was estimated at 129,040 milreis, and expenditure at 129,080 milreis. The military force is 247 men, of whom 143 are natives. The value of imports in 1899 was 950,826 milreis; the exports, consisting of rubber, wax, oil-seeds, ivory, and hides, were used at 332,979 milreis in 1899 and 401,455 milreis in 1900. The number of vessels, excluding coasters, that visited the ports during 1900 was 150, of 57,907 tons. The Union of the Princeps, in the Gulf of Guinea, have an area of 360 square miles and a population, as shown by
the census of Dec. 31, 1900, of 42,103, of whom 37,776 were in St. Thomas and 4,327 in Principe, the total including 897 foreigners and comprising 1,185 whites, of whom 1,063 were males and 92 females, 279 colored, of whom 145 were males and 134 females, and 40,830 negroes, of whom 21,881 were males and 18,738 females. Principe produces about 60,000 kilogrammes of cacao. St. Thomas, 2,250,000 kilogrammes of coffee. Another product is cinchona. The imports of St. Thomas for 1900 were valued at 2,057,901 mirilles, and exports at 2,552,773 mirilles. The number of vessels that visited the ports of the islands during 1900 was 180, of 300,115 tons. The revenue of the islands in 1902 was estimated at 350,140 mirilles, and expenditure at 372,524 mirilles. The military force is 240 men, of whom 181 are natives. The most important and extensive of the colonial possessions of Portugal are in the southern part of the African continent, Angola on the western and Portuguese East Africa on the eastern side (see SOUTH AFRICA).

PRESBYTERIANS. I. Presbyterian Church in the United States of America (Northern).

The following is a summary of the statistics of this Church as they were reported to the General Assembly in May, 1902: Number of synods, 32; of presbyteries, 256; of ministers, 7,017; of candidates, 810; of local evangelists, 123; of elders, 28,638; of deacons, 10,274; of communicants, 1,045,335; of members of Sabbath-schools, 1,153,083; of members who had written on examination during the year, 65,889; of baptisms, 23,279 of adults and 26,043 of infants; net increase of members during the year, 19,050; amount of contribution for the year—for home missions, $1,203,453; for foreign missions, $896,079; for education, $105,301; for Sabbath-school work, $136,757; for church erection, $201,034; for the Relief fund, $107,718; for the freedmen, $145,111; for synodical aid, $100,062; for aid for colleges, $425,421; for the General Assembly, etc., $84,926; for congregational expenses, $125,456; miscellaneous contributions, $1,053,975; total contributions, according to the footing of the tables, $17,080,191.

The Board of Education reported to the General Assembly that it had met all its financial engagements without incurring any debt, but had a somewhat diminished balance. The receipts from churches, Sabbath-schools, and Young People's Societies had amounted to $44,179, as compared with $46,401 in 1901. The number of ministers for the ministry had been unusually small, they had been given the highest rate of allowance since 1894, and $55,530 had been paid to 572 beneficiaries. One hundred and forty new recommendations had been favorably acted upon, and 432 recommendations renewed. Of the candidates under care, 217 were theological students, 220 college students, and 35 preparing for college. One was a Bohemian, 77 were colored men, 29 Germans, and 4 Spanish speaking. There had been a decided falling off in the number of Spanish-speaking students.

The Board of Aid for Colleges had received $222,836, and had aided 24 institutions to meet current expenses, given interest on trust funds to 3, and helped 16 in their endowment.

The Board of Relief for Disabled Ministers and the Widows and Orphans of Ministers reported that it had had on its roll 906 cases of ministers, widows, orphan families, missionaries, and guests at its home in Perth Amboy, N. J., and had paid $43,073 to honorably retired ministers. The names of 29 ministers had been added to the honorably retired list; 29 more were on the active list, and 11 had died. Eighty new names had been added to the roll of annuitants. The average amount paid to annuitants on the honorably retired roll was $226.26, and the average to annuitants not on the roll was $190. The receipts for the year had been $231,447, and the expenditures $223,441. The balance in the permanent fund was $44,801. The annuity fund amounted to $42,385. The whole amount of investment funds was $1,564,835.

The Board of Publication and Sabbath-School Work had 97 missionaries and 2,134 schools, in 31 of the United States, and in Cuba. The sale of books and periodicals had amounted to $488,542, of which $175,749 were devoted to the missionary work of the department. The report recommended the printing of literature in the Hungarian language for the instruction of parents in the training of their children.

The Board of Church Erection reported to the General Assembly that its total receipts for the year had been $183,275, and its disbursements $206,209. Aid had been given in the building of 259 new churches. Since the board's work was started, in 1846, 7,159 churches had been aided, with a total sum of $4,353,492. The report embodied a recommendation that churches asking for appropriations should regard the sums granted to them not as gifts, but as loans, to be paid back promptly. The Board of Home Missions reported that the whole amount of contributions to its funds for the year had been $884,092, and that the sums used by the self-supporting missions would bring the total sum applied to this work to $940,295. A balance of $4,000 remained at the end of the year. Eighty-nine churches that had been assisted had ceased to ask for funds. The board reported that 1,380 churches had asked for smaller sums than they had received during the preceding year. Including 26 Mexican and Indian helpers, 1,350 missionaries and 490 missionary teachers had been employed, who returned 7,885 additions on profession of faith with a total church-membership of 74,457; an attendance of 8,354 in the congregations; 3,883 baptisms of adults and 3,256 of infants; 1,850 Sabbath-schools, with 116,497 members; 70 churches and 223 Sabbath-schools organized; 89 churches reached self-support; and $120,409 of church debts canceled. The board recommended the General Assembly for its policy of promoting efforts toward self-support by home mission churches; and the churches were advised, so far as they are able, to begin a fund for the support of at least one home missionary.

The Woman's Presbyterian Board of Foreign Missions of the Southwest held its twenty-fifth annual meeting in St. Louis, Mo., April 24. The report showed that the board had 22 missionaries in the field, 18 of whom were supported by single societies or by individuals as a special work.

The Board of Missions to the Freedmen reported that the receipts for the year had been $185,804, and that a balance of $4,057 remained on hand. The freedmen's schools and churches had besides contributed $88,254 for self-support. The receipts had been larger than for any of the eight years preceding. Nearly 11,000 pupils had come under Presbyterian influence. The number of ministers in the field had increased from 201 to 209, and the number of churches and ministers from 342 to 355.

The Board of Foreign Missions reported that its receipts for the past year had been $1,097,836, being the largest in its history. For five years the board had reported "no debt," and each year the receipts had been larger than in any of the preceding. There had also been received $244,782
toward the payment of the mortgage on the Pres-
byterian Church, to which only $150,000 were now unpaid. The building was yielding a gross income, exclusive of the quarters occupied by the two boards, of $118,130 a year. The force in the field was growing year by year, and now comprised 745 missionaries and 1,892 native helpers, with 610 organized churches, 769 schools and colleges, and 84 hospitals and dispensaries. In 77 hospitals and dispensaries under the care of the board 340,878 patients had been treated at a net cost of $22,009. Forty-eight newly appointed missionaries had been sent out, besides 60 to be held, and 56 were under appoint-
ment to go out.

The General Assembly met in the city of New
York, May 15. The Rev. Henry Van Dyke, D. D., presiding. In the Revision of the Confession of Faith the General Assembly adopted a report covering two divisions: I. Certain revisions of the Confession of Faith, in certain special parts of, and from certain specified subjects, by the method of textual modification or by declar-
atory statement, or additional statements, as to be passed upon by the Assembly for submission to the Reformed Church. II. The Statement of the Statement of the Reformed Faith, to be submitted to the As-
sembly for such disposition as might be judged to be wise. In the first division, 11 overtures were proposed, to be set down to the presby-
teries, as follows:

"Overture No. 1. Shall the following preamble to a declaratory statement be adopted, viz.:

"While the ordination vow of ministers, ruling elders, and deacons, as set forth in the Form of Government, requires the reception and adoption of the Confession of Faith only as containing the system of doctrine taught in the Holy Scriptures, nevertheless seeing that the desire has been formally expressed for a dissavowal by the Church of certain inferences drawn from statements in the Confession of Faith, and also for a declaratory statement of certain aspects of revealed truth which appear at the present time to call for more explicit state-
ment, therefore the Presbyterian Church in the United States of America does authoritatively declare as follows:"

"Overture No. 2. Shall the following declaratory statement be adopted as to chapter iii of the Confession of Faith? To wit, a reference to chapter iii of the Confession of Faith; that concerning those who are saved in Christ, the doctrine of God's eternal decree is held in harmony with the doctrine of his love to all mankind, his gift of his Son to be the propitiation for the sins of the whole world, and his readiness to bestow his saving grace on all who seek it. That concerning those who perish, the doctrine of God's eternal decree is held in harmony with the doctrine that God does not desire the death of any sinner, but has provided in Christ a salvation sufficient for all, adapted to all, and to be offered to all; that men are fully responsible for their treatment of God's gracious offer; that his decree hinders no man from accepting that offer; and that no man is condemned on the ground of his sin:"

"Overture No. 3. Shall the following declar-
atory statement be adopted as to chapter x, section 3, of the Confession of Faith? To wit, with reference to chapter x, section 3, of the Confession of Faith, that it is not to be regarded as teaching that any who die in infancy are lost. We believe that all dying in infancy are regenerate and saved by Christ through the Spirit, who works when and where and how he pleases."

"Overture No. 4. Shall foot-notes be appended to chapter iii and chapter iv of the Confession of Faith, reading (as above)?"

"Overture No. 5. Shall section 7, chapter xvi, of the Confession of Faith be changed so as to read—"

"Works done by unregenerate men, although they may be for the matter of them things which God commands, and in themselves praiseworthy and useful, and although the neglect of such things is sinful and displeasing unto God, yet because they proceed not from a heart purified by faith, nor are done in a right manner, according to his Word, nor to a right end, the glory of God; they come short of what God requires, and do not make any man meet to receive the grace of God."

"Overture No. 6. Shall the last clause in sec-

"nection 3, chapter xxii, of the Confession of Faith, which reads as follows, be stricken out? "Yet it is a sin to refuse an oath touching anything that is good and just, being imposed by lawful author-
ity."

"Overture No. 7. Shall the following sentence be substituted for section 6, chapter xxxiv, of the Confession of Faith?"

"VI. The Lord Jesus Christ is the only head of the Church, and the claim of any man to be the vicar of Christ and the head of the Church is unscriptural, without warrant in fact, and is a usurpation dishonoring to the Lord Jesus Christ."

"Overture No. 8. Shall the following preamble be adopted, viz.:

"Whereas, It is desirable to express more fully the doctrine of the Church concerning the Holy Spirit, missions, and the love of God for all men, the following chapters are added to the Confession of Faith."

"Overture No. 9. Shall a chapter be added to the Confession of Faith, to be numbered chapter xxxiv, and entitled Of the Holy Spirit, as follows?"

"CHAPTER XXXIV. Of the Holy Spirit.

"I. The Holy Spirit, the third person in the Trinity, proceeding from the Father and the Son, of the same substance, and equal in power and glory, is together with the Father and the Son, to be believed in, loved, obeyed, and worshiped throughout all ages.

"II. He is the Lord and Giver of Life, every-
where present in nature, and is the source of all good thoughts, pure desires, and holy deeds in men. By him the prophets were moved to speak the Word of God, and all writers of the Holy Scriptures inspired to record infallibly the mind and will of God. The dispensation of the Gospel is especially committed to him. He pre-

suit, but are also guilty of resisting the Holy Spirit."

"III. The Holy Spirit, whom the Father is ever willing to give to all who ask him, is the only efficient agent in the application of redemption. He convicts men of sin, moves them to repentance, regenerates them by his grace, and persuades and enables them to embrace Jesus Christ by faith. He unites all believers to Christ, dwells in them as their comforter and sanctifier, gives to them the spirit of adoption and prayer, performs all those gracious offices by which they are sancti-


"IV. By the indwelling of the Holy Spirit all believers being vitally united to Christ in his head, are thus united one to another in the Church, which is his body. He calls and anoints
ministers for their holy office, qualifies all other officers in the Church for their special work, and invests them with such gifts and graces as belong to their office. He gives efficacy to the word and to the ordinances of the Gospel. By him the Church will be preserved, increased, and multiplied; its members will be brought to the fullness of the blessedness which is in him, and at last made perfectly holy in the presence of God.

"Overture No. 10. Shall the following chapter on the Gospel be added to the Confession of Faith and numbered xxxv?"

"CHAPTER XXXV. Of the Gospel."

"I. God, in infinite and perfect love, having provided in the covenant of grace, through the mediation and sacrifice of the Lord Jesus Christ, a way of life and salvation sufficient for and adapted to the whole race of man, doth freely offer this salvation to all men in the Gospel."

"II. In the Gospel God declares his love for the world, and his desire that all men should be saved; reveals fully and clearly the only way of salvation; promises eternal life to all who truly repent and believe in Christ; invites and commands all to embrace the offered mercy; and by his Spirit accompanying the Word pleads with man to accept him and live."

"III. It is the duty and privilege of every one who hears the Gospel immediately to accept its merciful provisions; and they who continue in impenitence and disobedience incur aggravated guilt and perish by their own fault."

"IV. Since there is no other way of salvation than that revealed in the Gospel, and since in the dispensation of grace it is the established and ordinary method of grace to regard the word of God as the only means of salvation; we believe and confess that all who reject the salvation which God offers in the Gospel, and who persist in relying on their own works or in refusing the grace and patience of God, deserve and are subject to the eternal punishment of God."

"Overture No. 11. Shall any change in the numbers appearing in the declaratory statement, in the introductory, and in the explanatory statements of the above, be committed to the chairmen of the Revision Committee under the direction of the General Assembly?"

The understanding of the committee of the work enjoined upon it in the preparation of the Brief Statement of the Reformed Faith found expression in the following resolution, which appears in its records:

"Resolved, That it is the sense of this committee that the Brief Statement of the Reformed Faith which the Assembly has ordered us to prepare should be made with the view to inform and enlighten the people in regard to the significance and religious meaning of the Reformed Faith, and not with the view of becoming a test of orthodoxy for ministers, elders, and deacons."

The following is the Brief Statement of the Reformed Faith constituting the second part of the report:

"ARTICLE I.—Of God. —We believe in the ever-living God, who is a spirit, and the Father of our spirits; in an infinite, eternal, and unchangeable in his being and perfections; the Lord Almighty, most just in all his ways, most glorious in holiness, unsearchable in wisdom, and plenteous in mercy; full of love and compassion, and abundant in goodness and truth. We worship him, Father, Son, and Holy Spirit, three persons in one God-head, one in substance and equal in power and glory."

"ART. II.—Of Revelation. —We believe that God is revealed in nature, in history, and in the heart of man; that he has made gracious and clearer revelation of himself to the men of God who spoke as they were moved by the Holy Spirit; and that Jesus Christ, the Word made flesh, is the brightness of the Father's glory and the express image of his person. We greatly esteem the Holy Scriptures, given by inspiration, to be the faithful record of God's gracious revelations and the sure witness to Christ, as the Word of God, the only infallible rule of faith and life."

"ART. III.—Of the Eternal Purpose. —We believe that the eternal, wise, holy, and loving purpose of God embraces all events, so that while the freedom of man is not taken away, nor is God the author of sin, yet in his providence he makes all things work together in the fulness of his sovereign design and the manifestation of his glory; wherefore, humbly acknowledging the mystery of this truth, we trust in his protecting care and set our hearts to do his will."

"ART. IV.—Of the Creation. —We believe that God is the creator, upholder, and governor of all things; that he is above all his works and in them all; and that he made man in his own image meet for fellowship with him, free and able to choose between good and evil, and forever responsible to his maker and Lord."

"ART. V.—Of the Sin of Man. —We believe that our first parents, being tempted, chose evil, and so fell away from God and came under the power of sin, the penalty of which is death, and that we confess that, by reason of this disobedience, we are all born with a sinful nature, that we have broken God's law, and that no man can be saved but by his grace."

"ART. VI.—Of the Grace of God. —We believe that God, out of his great love for the world, has given his only begotten Son to be the Saviour of sinners, and in the Gospel freely offers his all-sufficient salvation to all men. And we praise him for the unspeakable grace wherein he has provided a way of eternal life for all mankind."

"ART. VII.—Of Redemption. —We believe that God, from the beginning, in his own good pleasure, gave to his Son a people, an innumerable multitude, chosen in Christ unto holiness, service, and salvation; we believe that all who by the exercise of discretion can receive this salvation only through faith and repentance; and we believe that all who die in infancy, and all others given by the Father to the Son who are beyond the reach of the outward means of grace, are regenerated and saved by Christ through the Spirit, who works when and where and how he pleases."

"ART. VIII.—Of Our Lord Jesus Christ. —We believe in and confess the Lord Jesus Christ, the only mediator between God and man, who, being the Eternal Son of God, for us men and for our salvation became truly man, being conceived by the Holy Ghost and born of the Virgin Mary, without sin: unto us he has revealed the Father, by his Word and Spirit, making known the perfect will of God; for us he fulfilled all righteousness and satisfied eternal justice, offering himself a perfect sacrifice upon the cross to take away the sin of the world; for us he rose from the dead and ascended into heaven; interceding for us in heaven; in our hearts, joined to him by faith, he abides forever as the indwelling Christ; over us, and over all for us, he rules; wherefore, unto him we render love and worship as our prophet, priest, and king forever."

"ART. IX.—Of Faith and Repentance. —We be-
keve that God pardons our sins and accepts us as righteous, solely on the ground of the perfect decrepice for which we do not do anything; and that this saving faith is always accom-
panying by repentance, wherein we confess and brake our sins with full purpose of, and endeavor after, a new obedience to God. We believe, that the Lord Jesus Christ, the true God and true Man, to maintain the public and private worship of God, to hallow the Lord's Day, to preserve the sanctity of the family, to uphold the just authority of the state, and so to live in all honesty, purity, and charity that our lives shall testify of Christ. We joyfully receive the word of Christ, bidding his people go into all the world and make disciples of all nations, and declare unto them that God was in Christ reconciling the world unto himself, and that he will have all men to be saved, and to come to the knowledge of the truth. We confidently trust that by his power and grace, all his enemies and ours shall be finally overcome and the kingdoms of this world shall be made the kingdom of our God and of his Christ. In this faith we abide; in this service we labor, and in this hope we pray."

The discussion over this report was short and showed a preponderance of sentiment in the Assembly in favor of the propositions embodied in it. The Assembly resolved that so much of the report as related to the 11 overtures be adopted with a view to the sending of the overtures to the General Assembly in 1801, and that the language of the General Resolution be adopted and printed with the approval of the Assembly for use in the Church, "to instruct the people and to give a better understanding of our central beliefs." A report containing proof-texts of the doctrines affirmed accompanying these papers was also adopted.

The present being the one hundredth year since the institution of mission work by the General Assembly, the annual appointment of a Committee of Missions having been first provided for by the General Assembly of 1802, the anniversary was commemorated with special services, supplemented by a public meeting which was addressed by the moderator, the Rev. Dr. Charles L. Thompson, and President Theodore Roosevelt. The report on temperance mentioned a growing demand for temperance literature, increased attention to the cause of temperance in the Young People's Societies, and continued interest in temperance teaching in the Sabbath schools. The Assembly's resolutions suggested a memorial to Congress in behalf of legislation to prohibit the sale of intoxicating liquors at old-soldiers' homes and in Government buildings on the Sabbath, and a resolution calling attention to the tactics of the friends of the secularization of the day and embodied resolutions, which were adopted, reproducing all games and sports on the Lord's Day, depreciated the use of that day for traveling, "either for business or pleasure, by private individuals or public officials, notably such as occurred during the recent entertainment of a foreign guest"; disapproved of political conferences on the Lord's Day; and urged the captains of industry and all corporate officials and employers of labor to safeguard the men under their employ in the right to their day of rest. In the matter of vacancy and supply, the committee on the subject were agreed in recommending a plan for bringing vacant churches and unemployed ministers together, but a proposition in the minority report for the appointment of a permanent advisory committee of 3 ministers and 3 elders was not accepted by the Assembly. A committee was appointed to confer with the Protestant Episcopal Church and committees that may be appointed by other churches, "with a view to securing some concert of action by the churches of America relative to divorce and remarriage, and so to affect public
opinion that uniform legislation may be enacted by the States to preserve the family institution and preserve the sanctity of the marriage bond." Ministers were urged to instruct their congregations on the subject, and to "exercise due diligence before the celebration of a marriage to ascertain that there exist no impediments thereto, as defined in our Confession of Faith."

A committee was appointed to report to the next General Assembly as to plans for encouraging Young People's Societies in the Church. As to theological seminaries, the Assembly resolved, "that in view of the restless spirit of the times in which we live and the dangerous influence exerted by some revolutionary theories, we do affectionately exhort the governing boards of all our seminaries to exercise the utmost caution in the election of professors. And in view of the assaults recently made on that which we regard as the vital truth as to the nature and inspiration of the Scriptures, and particularly in view of the assaults on the integrity and authority of the Old Testament, we do reaffirm the historic faith of the Church in the oracles of God as the veracious record of his dealings with men from the beginning of the world's history, and we unshaken belief that these sacred books were written by holy men of old, who spoke as they were moved by the Holy Spirit, and that this fact has the solemn witness of the apostles and of the Lord Jesus Christ himself."

II. Presbyterian Church in the United States (Southern).—The following is the summary of the statistics of the Church as published with the minutes of the General Assembly for 1902: Number of synods, 13; of presbyteries, 79; of candidates, 291; of licentiates, 62; of ministers, 1,501; of churches, 3,017; of communicants, 232,362; of members added on examination during the year, 10,405; of baptisms during the year, 3,024 of adults and 4,868 of infants; of baptized non-communicants, 4,312; of teachers in Sabbath-schools, 20,784; of pupils in Sabbath-schools, 140,481; of ruling elders, 9,130; of deacons, 7,887; amount of contributions—for home missions (Assembly), $3,521; for evangelization, $3,340; for work (local), $130,468; for Ministers' Relief, $19,401; for foreign missions, $131,756; for education, $132,521; for publication, $9,057; for colored evangelization, $12,743; for the college, by the General Assembly, 10,993; for pastors' salaries, $800,103; congregational, $807,383; miscellaneous, $111,252; total, according to the footing of the tables, $2,227,649; average contribution, 19 cents per minister. The figures show an increase for the year of 16 ministers, 26 churches, 1,651 communicants, and 1,693 teachers in Sabbath-schools; a decrease of 85 pupils in Sabbath-schools; and an increase of 61,060 in total contributions. A comparison with the statistics of 1882 shows a gain in twenty years of 39 per cent. in the number of ministers, 50 per cent. in that of churches, 85 per cent. in communicant membership, and 97 per cent. in the total amount of contributions.

The Executive Committee of Ministerial Relief, instituted by the General Assembly of 1901, reported that it had completed its organization and had been incorporated under the laws of Virginia. The sum of $4,475 had been contributed toward an endowment fund, and was bearing interest. A plan had been presented to the churches asking their cooperation for obtaining an adequate endowment through systematic contributions of an average of 10 cents per member per month for five years; but it would be well to devote the family to the preservation of the marriage bond. Ministers were urged to instruct their congregations on the subject, and to "exercise due diligence before the celebration of a marriage to ascertain that there exist no impediments thereto, as defined in our Confession of Faith." A committee was appointed to report to the next General Assembly as to plans for encouraging Young People's Societies in the Church. As to theological seminaries, the Assembly resolved, "that in view of the restless spirit of the times in which we live and the dangerous influence exerted by some revolutionary theories, we do affectionately exhort the governing boards of all our seminaries to exercise the utmost caution in the election of professors. And in view of the assaults recently made on that which we regard as the vital truth as to the nature and inspiration of the Scriptures, and particularly in view of the assaults on the integrity and authority of the Old Testament, we do reaffirm the historic faith of the Church in the oracles of God as the veracious record of his dealings with men from the beginning of the world's history, and we unshaken belief that these sacred books were written by holy men of old, who spoke as they were moved by the Holy Spirit, and that this fact has the solemn witness of the apostles and of the Lord Jesus Christ himself."

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in Mexico; and progress in independence in Brazil, where the secretary of the committee had visited the latter country.

The Committee on the Twentieth Century Fund reported that ten of the synods had undertaken to raise $1,730,000 for the fund, while no report had been received from the Synod of Kentucky; and that $423,000 had been contributed and subscribed up to April 1. About 50 colleges, high schools, presbyterian schools, etc., were expecting to be aided by the fund. The report was hopeful of the ultimate success of the enterprise, and represented that the interest in it, while not universal, was "wide-spread and deepening wherever any means are used to awaken and foster it."

The General Assembly met at Jackson, Miss., May 15. The Rev. W. T. Hall, D. D., of Columbia Theological Seminary, was chosen moderator. Upon the presentation of the report of the Kentucky Theological Seminary, an institution formed by the consolidation of the Louisville Theological Seminary of this Church and the Danville Theological Seminary of the Northern Presbyterian Church, to be under the jurisdiction of the Northern Presbyterian and Southern Presbyterian Synods in Kentucky and the two General Assemblies, it was raised to what should be the future relations of the General Assembly to the institution. Could the General Assembly with propriety sanction a division of its control? Upon the report and recommendation of the Committee on Theological Seminaries, the Assembly decided that the action of the previous General Assembly, assenting to the consolidation effectuated by the two General Assemblies, was a just one. And further, that questions relative to the teaching of the Standards as they now are, or as they might be modified in the future, are not germane to the present matter, as it lies within the power of the controlling synods; and that the rights of the Assembly to grant authority to another denomination to pass upon the orthodoxy of its ministers and to receive reports from a seminary in whole or in part under the control of another denomination, which had been questioned, were involved in the constitutional right of the General Assembly to cooperate with other denominations in the prosecution of Christian work. It was shown in the debate on this subject that by the terms of the consolidation of the seminaries the General Assembly was vested with power to conduct the prosecution of the synods' work. A number of overtures had been sent up expressing dissatisfaction over the action of the previous General Assembly on the subject of infant salvation, some of them asking the Assembly to rescind parts of it, and others desiring that some declaratory or explanatory statement be made that shall clear the Church of the imputation of teaching that some dying in infancy are eternally lost; while others sought the amendment of the Confession so that it shall teach in unmistakable terms the salvation of all who die in infancy. The Assembly of 1900, in view of the use of the words "elect infants" in it, had ordered a footnote appended to the section declaring that it could not, by any fair interpretation, be construed to teach that any of those who die in infancy are lost. The Assembly of 1901 rescinded this action, and gave five reasons why it should not be sustained. The general containing the words, the fifth of which was "because, while we have a well-grounded hope, founded on Scripture, that all infants dying in infancy are saved, yet it is a ground of great importance that the Scriptures justify a positive creedal statement upon this subject." By the action of the present Assembly this fifth reason was rescinded; a declaration was made that "this Assembly is fully persuaded that the language employed in chapter x, section 3, of our Confession of Faith, touching infants dying in infancy, does not teach that there are any infants dying in infancy who are damned, but is only meant to show that those who die in infancy are saved in a different manner from adult persons who are capable of being outwardly called by the ministry of the Word. Furthermore, we are persuaded that the Holy Scriptures, when fairly interpreted, amply warrant us in believing that all infants who die in infancy are included in the election of grace, and are regenerated and saved by Christ through the spirit." For the more efficient provision of ministerial relief, all the presbyteries and all the churches were requested to appoint committees on that cause; a secretary was appointed over this business, to devote his whole time to it; a collection was advised to be taken every year in July in every church for the cause; and the work of the home and school at Fredericksburg, Va., being regarded as virtually a branch of ministerial relief, its Board of Trustees and the Executive Committee on Ministerial Relief were directed to consider the question as one of consolidating those two branches of the domestic work of the Church under one management. Provision was made for the equitable apportionment of the debt of the home and school for its payment among the 79 presbyteries. The Permanent Committee on the Church and Christian Education reported concerning the collections and the organization and the instruction under the Twentieth Century fund scheme, and that the day school had been made a part of the home mission work in some of the presbyteries; and the Assembly reaffirmed its belief that the synods and presbyteries and congregations "must bend every energy to maintain and extend the system of Christian education established by the founders of the Presbyterian Church. To this end the support and patronage of this Assembly will be given only to those academies and colleges in which Biblical and spiritual instruction is combined with the usual courses of study in classical, scientific, and literary subjects." A committee was appointed to prepare a catechism on the history of the Church. Ministers were urged to keep the subject of its present and past constantly before the people; members to keep the day holy "according to the teaching of God's Word," abstaining from all forms of Sabbath desecration, and to build up in every way a healthy public sentiment on the subject; sessions to take steps to bring the question home to the minds and hearts of the members; and each presbytery to hold a popular service for the consideration of the subject. An amendment to the Book of Church Order was approved, to be sent down to the presbyteries, omitting the requirement of a Latin thesis on the examination of candidates for ordination.

Afro-American Synod.—The Independent Afro-American Synod received a charter in 1901 from the State of South Carolina. At the meeting of the synod in that year, at Abbeville, S. C., a report on Narrative and Prospects was adopted, recognizing the great need of a separate and distinct negro Presbyterian Church and work, for the more effectual reaching of the colored people and the developing in them of "those higher principles of morality and religion and a more steadfast Christian walk as far as the Scriptures justify a positive creedal statement upon this subject." By the action of the present
The Board of Ministerial Relief reported that the number of beneficiaries had increased to 90, of whom 33 were ministers and the others widows and orphans. Of these, 14 had been added during the year.

The Board of Home Missions had expended $91,385, an increase of $3,232 over the preceding year, and reported no debt to be provided for. It had 229 stations under its care, with an average attendance of 18,629 on preaching services and 23,120 on Sabbath-schools. The net gain in membership of the Church was 1,614, making a total enrolment of 18,385. The stations had contributed $24,842 to the boards and $55,112 to their own local work. Twelve congregations had become self-sustaining. The whole amount of grants of aid was $103,000, $15,450 of which were for work in new work. The Assembly recommended that the suggestion of "volunteer service" on the home field on the part of students just leaving the theological seminary be put in operation as far as practicable; and that the work among the mountain whites of the South be kept under advisement in the hope that means may be granted for engaging in it.

The Board of Home missions had closed the year with a debt increased to $25,062. The average of contributions of the freedmen for church purposes had been $4.82 per member.

The Board of Extension had expended $52,857 in aid given to congregations, an increase of $12,857 over the preceding year. The General Assembly directed that statistics of church indebtedness be collected and reported to next Assembly. The assignment of the entire department of parsonage work to the Woman's Board was approved of.

The report of the Board of Foreign Missions showed that the Egyptian mission, urged by a necessity, had overdrawn its allowance $5,848. The General Assembly, recognizing an exceptional case, authorized the payment of the amount, with a reservation against the action being taken as a warrant for the contraction of debts by a mission without the knowledge of the board. The projects of establishing a college at Cairo and of the year, 4,048 of infants and 1,973 of adults, of which 3,030 of infants and 1,221 of adults were in America, of members received on profession, 7,532, of whom 5,845 were in America, of Young People's Societies, 1,036, with 39,715 members. Amount of contributions (in America): For salaries of ministers (1867-1868), $605,710; for the boards, $357,556; for general purposes, $206,150; total for America, $1,184,325; total for the Church (including the foreign stations), $1,574,514. Average contribution per member in America, $15.87; average salary of pastors in America, $1,010. Of the ministers recorded in the tables, 730 were classed as pastors and stated supplies, and 299 as without charge; of the congregation 500 as provided with pastors or stated supplies, and 169 as vacant.

The Board of Education reported to the General Assembly that it had been able during the year to pay the beneficiaries only two-thirds of the allowance authorized. To the college and seminaries the full amount was paid, $10,000—a sum equal to the income of an endowment of $200,000. The presentation of the special report by the General Assembly to assist the board in every effort to obtain from ministers withdrawing from the Church a return of what they had received. The report was considered so rapid as to make it possible the department of work in behalf of the Church's higher institutions of learning.
$24,000 expended, 18 congregations had been assisted—a larger number than ever in one year before. In the foreign missions the board supported 44 unmarried woman missionaries, besides providing for the entire maintenance of 2 boarding-schools, 3 hospitals, and 3 dispensaries. Special features mentioned in the report were the beginning of work on the new Martha J. McElroy Hospital, at Tanta, Egypt; the girls' boarding-school at Seakote, India; a new school at Luxor, Egypt; and in America the Home for Aged People, the Orphan Home, the Memorial Hospital, and the Home for Missionaries' Children at New Wilmington, Pa.

The forty-fourth General Assembly met in Allegheny, Pa., May 28. The Rev. James C. Wilson, D. D., of Erie, Pa., was chosen moderator. The committee appointed by the previous General Assembly (see Annual Cyclopaedia for 1901, p. 535) recommended a revised and amended form of membership covenant for overture to the presbyteries, if it should prove acceptable to the Assembly, reported a form of covenant, and with it a new formula for the reception of members. The form embodied a declaration that the Scriptures are received as the revelation of the truth and the law of life; an expression of unqualified reverence for God, the Father, the Son, and the Holy Spirit; and the personal acceptance of each person of the Godhead in his relation to us and our salvation; and a declaration of submission to the authorities of the Church, a willingness to receive with meekness instruction in the divine truth as set forth in the accepted Standards of the Church, to see to the world, the flesh, and the devil, and to conform the life to the will of God; a promise of fidelity in attendance on public worship and in the observance of the sacraments, of personal service and financial support, a disposition to promote the peace, purity, and prosperity of the congregations, and a promise of daily prayer, Bible reading, and worship. These propositions were opposed in the debate by those who were satisfied with the present conditions of receiving members and desired no change, and the motion to overture the report to the presbyteries was lost by a vote of 103 to 118. A new committee was appointed to consider the subject further and report to the next Assembly. The General Assembly was asked by the Board of Home Missions to consider the condition of the Presbyterian Church in the Punjab, India, in respect to the attitude to be taken and the course to be pursued regarding the proposed union of all the Presbyterian churches of India into one church, the "Church of Christ in India, Presbyterian." The answer of the Assembly was given in resolutions "that we approve of the principle of Presbyterian union in India, when in the providence of God the way is opened up and the time is ripe for such a movement; that reposing the utmost confidence in the wisdom and loyalty of our missionaries in India, we authorize them to take part in the work of preparation for the proposed union; and that when the whole scheme of doctrine and administration is completed, it be submitted in overture to the presbyteries in India, and reported, together with the vote on the question, to the General Assembly for approval or rejection." Relations were resumed with the General Synod of the Reformed Presbyterian Church after an interval of twenty years, and a fraternal delegate was appointed to the General Synod. The General Synod had withdrawn its mission from the Gujarawala district in India in favor of the United Presbyterian Church, and had sent its salutations by delegate to the General Assembly. Progress was reported in the preparation of a uniform metrical version of the Psalms, which is in the hands of a joint committee of Psalm-singing churches, and the gratification of the Assembly was expressed. The overture on the limitation of appeals, having been approved by a majority of the votes cast in the churches, was declared adopted and ordered incorporated in the Book of Church Government.

The report of the Board of Publication noted an increased interest in Sabbath-schools. Their contributions had increased $48,000 since 1900. In its resolutions on reform the Assembly advised that only such papers be admitted into home and school as would uplift and ennoble and tend to arouse to higher ideals; commended the curfew ordinances wherever enacted, and urged their enforcement; and asked the presbyteries to hold conferences and conventions on Sabbath observance. A committee was appointed in anticipation of the fiftieth year of the existence of the Church, six years hence, to prepare and report a plan for a suitable celebration of the event.

The Associate Reformed Synod of the South, at its ninety-ninth meeting in Pisgah Church, Gaston County, North Carolina, Nov. 6 to 10, appointed a joint committee of the United Presbyterian Church for agreement on a basis of union of the two bodies, to be submitted to the next meeting of the synod and referred to the authorities of the Church in overture. This synod has 104 ministers, 151 churches, and 11,903 members, and sustains Erskine College, Due West, S. C., and a foreign mission in Mexico.

IV. Reformed Presbyterian Church in North America. Synod.—The following are the statistics of this body as reported at the meeting of the Synod in May, 1902: Number of congregations, 112; of mission stations, 9; of ministers, 126, 1 of whom is a native Syrian; of licentiates, 19, 5 of whom are Syrians; of theological students, 10, 1 of whom is a Syrian; of communicants, 7,722, showing a decrease of 77; of attendants at Sabbath-schools, 10,644; attendance upon Young People's Societies, 2,162; total amount of contributions, $16,978.

The resources of the Board of Church Erection for the year had been $2,896, and its disbursements $1,900, leaving a balance of $986. An appropriation of $4,000 for the coming year. The applications on hand called for $1,300, and steps were being taken toward making others.

The Board of Sustentation reported $3,585 in its treasury, with 12 congregations asking for aid to the amount of $3,785.

The Central Board of Missions reported the receipt of $7,744 and the expenditure of $8,049 on the account of the domestic mission and the receipt of $4,668 and expenditure of $4,674 for the Southern mission, with an enrolment of 543 in the school of the latter. The Indian mission in Oklahoma had received $4,044, and returned 55 pupils in the schools. The accounts of the Chinese mission gave receipts $1,229, and expenditures $729; and of the Jewish mission, $1,110 of receipts and $1,080 of expenditures. The discontinuance of the Chinese mission was recommended.

A satisfactory report was made by the Board of Foreign Missions. Among the favorable features noted were the passing away of the hostile Russian influence, the increased attendance at the schools, the growth in the membership of the Church, and manifest blessing upon the labors
of the missionaries. The missions were in China, Asia Minor, Syria, and Cyprus.

The Rev. W. W. Carrithers was chosen moderator. The reading of a letter from the Western section of the Presbyterian Alliance led to a discussion of the relations of the Synod and the alliance. The purpose of the alliance was held to be good, if it could be made sure that the principles of purity in worship would not be submerged. It was observed that the Western section had recently adopted papers advocating things to which the Church was opposed, and the question was raised whether comity required silence on those things or whether the Synod should protest. In the letter adopted to be sent to the alliance the Synod expressed itself as constrained to refer to certain passages in the reports of the Committee on Religious Liberty in the New Possessions and of the Committee on Moral Conditions in the New Territories. It disclaimed any responsibility for such expressions as might be quoted as favoring the divorce of religion and the commonwealth, and of religion and the schools, though they were acknowledged to be "mainly directed against the papal intervention of the state by the Church. There is a failure herein to assert the true doctrine of the Reformed faith on these questions. As to a third report, that of the Committee on Cooperation in Foreign Missions, while this Synod favors the union in one native church of the missions in the foreign field that are one in doctrine, polity, and worship, yet we do not favor the union on the part of those missions which may differ in doctrine or worship, though they agree in polity. This subject of Church union, we believe, is in the province of the churches themselves, rather than of the alliance."

In a paper on Peace and Arbitration, the Synod declared its belief in the wisdom and righteousness of the principle of peace between nations as among men, earnestly favoring the policy "that will draw nations nearer to each other and that will lead all peoples to cultivate a common friendship and a peaceful brotherhood. We urge arbitration as the proper method of settling difficulties between nations, and hold that the weakness of one party in a dispute should not work a forfeiture of its right to a fair hearing and impartial judgment." The Synod pledged its support to all true temperance work; advised that the children be taught true temperance in the home and the Sabbath-school; approved of temperance institutions in Sabbath-schools; reaffirmed its former declarations against the use or sale of tobacco; and reiterated its protest against the Government protecting the evil of intemperance by law and receiving revenue therefrom. The work of the American Sabbath Union was commended, and the resolutions of the Synod required members of the Church to abstain from selling or delivering or receiving milk on the Sabbath Day, or from holding stock in Sabbath-breaking creameries and other Sabbath-breaking corporations; from working in any mill or factory and from any other unnecessary labor on that day; and second sessions to proceed with the enforcement of proper discipline upon those guilty of violating these rules; and enjoined presbyteries to see that sessions are faithful in the discharge of their duties. The minutes of the 15th General Synod, in reference to closer cooperation.

General Presbyterian Church, General Synod.—This body of 500 members. The meeting of the synod was held in Philadelphia, Pa., in May. A resolution declaring that the General Synod "leaves to the wise discretion of the direction of the worship of their particular congregations" was discussed at some length, and defeated by a vote of 18 to 12.

V. Cumberland Presbyterian Church.—Statistical reports are published in connection with the minutes of General Assembly of this church for 1902, of which the following is a summary: Number of synods, 16; of presbyteries, 118; of churches, 2,944; of ordained ministers in the presbyteries, 1,685; of licentiates, 187; of candidates, 219; of members, 154,493, of whom 145,473 are enrolled in Sunday-schools, 111,722; of members of Christian Endeavor Societies (senior and junior), 22,001; of ministers ordained during the year, 67; of additions to the church by examination, 11,588; of baptisms, 7,837 of adults and 1,652 of infants. Total amount of contributions, $923,060—including among others, $692,524 for synodical and home missions; $24,900 for church extension; $20,620 for foreign missions; $20,171 for the Woman's Board of Missions, $10,000 for education, $7,405 for ministerial relief, $411,111 paid to pastors or for the support of churches and repairing churches; value of church property, $5,025,873.

The contributions to the Educational Society of this Church for 1902 amounted to $60,000, so that the General Assembly has been able to expend $58,000 for the support of educational institutions. The total contributions have been $500,000, of which $100,000 have been raised in the churches. The Educational Board has also assumed a debt of $75,000, which it is expected to retire in three years.

The contributions to the Home Mission Society have been $40,000, of which $10,000 have been received from the churches. The Home Mission Board has also assumed a debt of $30,000, which it is expected to retire in three years.

The contributions to the Foreign Mission Society have been $35,000, of which $10,000 have been received from the churches. The Foreign Mission Board has also assumed a debt of $25,000, which it is expected to retire in three years.

The contributions to the General Assembly have been $50,000, of which $10,000 have been received from the churches. The General Assembly has also assumed a debt of $25,000, which it is expected to retire in three years.

The contributions to the Woman's Board of Missions have been $40,000, of which $10,000 have been received from the churches. The Woman's Board of Missions has also assumed a debt of $30,000, which it is expected to retire in three years.

The contributions to the Ministerial Relief Society have been $50,000, of which $10,000 have been received from the churches. The Ministerial Relief Society has also assumed a debt of $25,000, which it is expected to retire in three years.

The contributions to the Church Extension Society have been $25,000, of which $5,000 have been received from the churches. The Church Extension Society has also assumed a debt of $10,000, which it is expected to retire in three years.

The contributions to the Church Improvement Society have been $20,000, of which $5,000 have been received from the churches. The Church Improvement Society has also assumed a debt of $10,000, which it is expected to retire in three years.

The contributions to the Church Building Society have been $15,000, of which $3,000 have been received from the churches. The Church Building Society has also assumed a debt of $7,500, which it is expected to retire in three years.

The contributions to the Church Loan Society have been $10,000, of which $2,000 have been received from the churches. The Church Loan Society has also assumed a debt of $5,000, which it is expected to retire in three years.

The contributions to the Church Pew Society have been $5,000, of which $1,000 have been received from the churches. The Church Pew Society has also assumed a debt of $2,500, which it is expected to retire in three years.

The contributions to the Church Publishing Society have been $25,000, of which $5,000 have been received from the churches. The Church Publishing Society has also assumed a debt of $12,500, which it is expected to retire in three years.

The contributions to the Church Library Society have been $10,000, of which $2,000 have been received from the churches. The Church Library Society has also assumed a debt of $5,000, which it is expected to retire in three years.

The contributions to the Church Music Society have been $5,000, of which $1,000 have been received from the churches. The Church Music Society has also assumed a debt of $2,500, which it is expected to retire in three years.

The contributions to the Church Art Society have been $2,500, of which $500 have been received from the churches. The Church Art Society has also assumed a debt of $1,250, which it is expected to retire in three years.
church erection, and $30,704 for the foreign missions in China and Japan.

The Missionary Convention of Cumberland Presbyterian Women had received $26,284, being an increase of $2,369 over the contributions of the preceding year. Reports were read at the twenty-second annual meeting, May 13, of missions in China, Japan, Mexico, 3 Chinese missions in California, and the mountain mission, where 344 pupils were enrolled in 3 schools, 200 of them in the Industrial Home.

The seventy-second General Assembly met at Springfield, Mo., May 15. The Rev. S. M. Templeton, of Texas, was chosen moderator. A council composed of one member from each of the synods, nominated by the commissioners of the several synods, was constituted, for the present Assembly only, to assist the moderator in appointing the committees. An important item in the business of the meeting related to the question of the control of the teachings of the Theological Seminary by the General Assembly. A committee of seven had been appointed by the previous General Assembly to confer with the trustees of Cumberland University, who had also jurisdiction over the Theological Seminary, with a view to determining under which control should be permanently assured to the Assembly. A proposition made by the Board of Trustees to the Assembly had been found to afford no satisfaction; a resolution was passed and a plan of settlement submitted by the Committee of Seven to the Board of Trustees had not been accepted by them. Majority and minority reports were presented by the Committee to the Theological Seminary. Both agreed in commending the management of the institution, but they advised different methods of settling the questions that had arisen. The Assembly directed the appointment of another committee which should request the Board of Trustees of Cumberland University to reconsider their action in declining to accept the plan of settlement proposed by the Committee of Seven, and to accept and adopt it.

The Twenty-sixth General Assembly was held in May.

VII. Presbyterian Church in Canada.—The following is a summary of the information of this Church as shown in the reports made to the General Assembly in June: Number of presbyteries, 88; of ordained ministers, 1,308; of communicants, 218,470; of churches, 216,494, 601,885; of families, 118,114; of widows, 7,659; of additions by profession of faith, 11,559; of Sabbath-schools, 3,196, with 21,717 teachers and officers and 102,355 pupils; of members of Christian Endeavor and other Young People's Societies, 26,319; amount of contributions for the schemes of the Church, $394,203; of contributions for salaries of ministers, $1,032,091; income of the Church for all purposes, $2,857,689. Value of church property, more than $10,000,000, less indebtedness of about $1,500,000. An increase of 5,399 communicants was shown, and the increase in the total amount of contributions was $394,203. The statistics of Sabbath-schools showed an increase of 147 in the number of schools reporting, of 517 officers and teachers, and of 2,988 pupils (including the home departments). The Sabbath schools had raised during 1901, for all purposes, $112,110. The statistics of Young People's Societies showed a decrease in the number of societies, but slight additions to the total membership in a few previous years. The rapid decline in the number of societies was apparently arrested.

The Aged and Retired Ministers Fund (for the provision of an apartment 1829 to 1875) and to incorporate in separate or combined book form any historical data it might have or obtain during the Assembly year bearing upon the original and distinctive doctrines of the Church; providing those things could be done without embarrassing the publishing interests. The report on the centennial endowment of the colleges advised the institutions involved to push the work of endowments vigorously in their respective bounds, so as to secure the stipulated amounts within the allotted time. "While the burden of endowing our institutions of learning would fall largely on the wealthier people of the Church, yet the question should be presented to every member and a subscription solicited." A permanent Committee on Temperance was appointed, of 17 members representing all the synods, and charged with the duty of promoting temperance agitation, education, and legislation; and provision was made for synodal committees. The report on Sabbath observance urged an uncomprising stand for a sacred Sunday and recommended the institution of Sabbath observance meetings or institutes at the General Assembly, the synods, and the presbyteries; preaching, ministerial practice, precept, and example in its favor; and cooperation with the National Sabbath Observance Committee. The General Assembly authorized the publication of the Confession of Faith in the Chocota language, a translation being already in course of preparation. The action of the General Assembly of 1899 requiring the boards to wait for nominations by the Assembly before electing members to fill vacancies was approved. This measure permits the boards and the Permanent committee to fill vacancies subject to veto by the Assembly.

The Cumberland Presbyterian Church, with 450 ministers, 404 churches, and 39,000 members, has a Board of Publication publishing a weekly journal at Fayetteville, Tenn., and Boards of Education, Ministerial Relief, and Missions; and a Woman's Board of Missions; and is interested in synodal schools at Newbern, Tenn., and Huntville, Ala. The twenty-sixth General Assembly was held in May.
tion had an endowment of $192,000, and that of the Eastern section one of $40,000. One hundred and 12 single districts containing a dozen Presbyterian families where the ordinances of the Church were not regularly maintained.

The contributions for foreign missions had amounted to $188,581. The work of the boards was carried on in the New Hebrides, Trinidad, Demerara, Formosa, Korea, Honan (China), and India; and a missionary had been recently appointed to Macao, China. The missionary force included 90 Canadian missionaries, with 268 native pastors, teachers, and other workers. The Indians of the Dominion were under the care of this board, as also the Chinese, of whom about 1,000 were under religious instruction at 30 schools. The Woman’s Missionary Society, at Montreal, had contributed $65,000 for home, French, and foreign missions.

The twenty-eighth General Assembly met in Toronto, June 11. The Rev. George Bryce, LL.D., was chosen moderator. One of the longest debates of the meeting was on the subject of the use of individual communion cups in the sacrament of the Lord’s Supper. It arose upon the presentation of a protest against the action of the session of a church in Charlottetown, on Prince Edward Island, in introducing the innovation. The presbytery of Prince Edward Island had decided that the matter should be left to the judgment of the individual congregations. The appeal of the synod had been taken to the synod, and it had referred the question to the General Assembly. A committee was appointed by the Assembly to consider whether any, and if so how, the use of individual communion cups should be permitted in the mode of observing the Lord’s Supper. The Assembly, recording its appreciation of the work done among the young people of the Church through the Society of Christian Endeavor, suggested the adoption of “Presbyterian Guild” as the distinctive name for the Young People’s Societies; and advised that where no pledge is adopted and the Christian Endeavor type of society is departed from, pastors urge that the organizations be so shaped as to be distinctively religious and missionary in their aims, and to imply responsibility and the sense of obligation in their membership. The committee had been appointed to confer with the trustees of Queen’s University regarding proposed changes in its constitution reported that certain changes in the charter of the institution had been agreed to, to the effect of which would be to separate the university legally and nominally, as it had been practically separate, from the Church; while at the same time the Theological College was brought into closer relationship with it, and was placed more directly under the authority of the General Assembly. The report was accepted, and the committee was reappointed to continue the conferences. The institution of a school for training catechists was authorized, the school to be held in the city of Winnipeg, and its course of study to embrace 3 terms of the year, in July, August, and September of each year. A new class of laborers was instituted, to be known as minister-evangelists, the step being designed as a temporary expedient to meet the exceptional demand for men during the next seven years. A proposal to institute a standing committee to exercise a general supervision over all theological colleges at which to secure are to be held, the Presbyterian Church was laid on the table, to be taken up in the next year. A report on adherence to the Assembly contemplated measures for regulating the propriety of the desirability of abolishing the present rules of
precedence as wanting in courtesy and foreign to the genius of the country, and of taking steps toward a fair and adequate recognition of all the churches in Canada. The Assembly advised that every legitimate effort be made for the retention of the Lord's Day as a day of rest, and for the right use of it by members and adherents of the Church. It further invited "all to whom its words come with authority to help in defending the day. It commends simplicity of family life, free from pleasure gatherings and such like, the abstaining from late Saturday trading, and in general such prayerful emphasis upon the purpose of the day as will secure by precept and example its wise fulfilment." Total abstinence was held up as a Christian privilege and every effort was advised to be put forth to educate the people, and especially the young, in temperance practice and principles; with advantage to be taken of every opportunity by which the use of intoxicating liquors may be lessened and sobriety advanced. Another recommendation by the Assembly was that the duty of exercising the powers and opportunities of citizenship conscientiously be urged upon the young inmates.

VIII. Church of Scotland.—The accounts of the committees for 1901 showed a satisfactory increase of income over the previous year, which in the free Church income was £1,083 in 1899. The total income had been £229,492, as against £208,228 in 1900. A decrease of £480 in legacies was returned. Increase was shown of £490 in the funds shown in 1899, £1,893 in that for the colonies; £520 in that for the Highlands and islands; £67 in the Aged and Infirm Ministers' fund; and £900 in the fund for Christian Life and Work. The Woman's Associations also contributed to the increase. The reports concerning the Christian liberty of the Church during 1901 showed an increase from £515,432 in 1900 to £645,789 in 1901. The Committee on Small and Diminished Livings reported that £9,863 had been allocated among 321 parishes, an increase of £691, as compared with the previous year. There were still 281 livings under the unit aimed at—£200 a year. During 1901 10 home mission grants had been made toward the cost of building, enlarging, or acquiring houses in mission schools, and 14 zenana pupils. The number of baptisms during the year, 1,281, was 435 above the average. The native Christian assistants were estimated to number 624, 10 of whom were ordained, while 135 catechists or preachers and nearly 300 teachers were included. The combined income had been £49,130, or £1,400 short of the required amount. The income at home had steadily decreased for three years.

The General Assembly met in Edinburgh, May 20. The Rev. Dr. J. C. Russell, of Campbeltown, was chosen moderator. In the King's letter, communicated as usual to the Assembly, his Majesty affirmed his determination to maintain the Presbyterian form of religion as represented by the Church, and to safeguard the Church in the possession of its rights and privileges. The customary royal gift of £2,000 for the propagation of religion in the Highlands and islands was intimated. A motion by the Colonial Committee to appoint a delegate to proceed to South Africa after peace was proclaimed and consult with the authorities of the Dutch Reformed Church and of the Presbyterian Church as to the best means of furthering the interests of religion in South Africa and of promoting the union of the two churches was remitted to the favorable consideration of the committee. An appeal was presented charging Principal Story, of Glasgow University, with heterodoxy and un- soundness of doctrine in signing, in his official capacity, a letter to Dr. Hope on the occasion of the four hundred and fiftieth anniversary of the foundation of the university. It was dismissed on the ground that no relevant case requiring further procedure had been stated. The report of the Church Interests Committee represented that the Church was wishful for the continuance of the present state of quiescence on the subject of disestablishment. The churches were growing together, and the spirit of conciliation affected both clergy and laity. In the case against the Rev. T. N. Adamson, of Barnhill, Broughton Ferry, who had admitted to his presbytery that he had introduced into his church certain objects and forms of service which were usually associated with ritualistic practices, the Assembly found that the documents disclosed very irregular proceedings, and enjoined the Presbytery of Dundee to visit the parish with a view of bringing the internal equipment of the church, the forms of worship, and the observance of the Lord's Supper into conformity with the general usage and practise of the Church. The Foreign Missions Committee was empowered to bring up a report next Assembly as to the prevention of increase of debt. During the consideration of the report of the Committee on the Highlands and Islands it was represented that members of the old Free Church in the Highlands had been taking advantage of some of the opportunities for worship given them by the Established Church, and were aware of the sympathy of that Church. An outcry in favor of the use in the Assembly's daily service of praise of the organ which had been placed in the Assembly hall was negatived. The Assembly directed inquiry to be made as to whether presbyteries and kirk sessions had any desire for the revision of the hymnal or the proposal of an appendix. The report on Sabbath observance in Scotland dealt with the various phases of Sunday labor in Scotland, the question of workmen's clubs, and the growing evil of Sunday trading. The committee did not ask for legislative restriction of the Sunday labor, but 15,000 pupils that should use its influence in the direction of regulating ice-cream shops and workmen's clubs. In his address closing the Assembly the moderator urged the desirability, in view of ultimate union of the churches in Scotland, of cooperation with other churches in local Christian enterprises for the common good.

IX. United Free Church in Scotland.—The report on statistics made to the General Assembly of this Church in May gave the number of members as 492,259, as against 492,904 in the previous year. The loss of members through the union was estimated to be 4,170, and as the membership showed a net increase after meeting the losses, especially in the Highlands, it was believed that bottom had been touched, and the Church would now go on increasing.

The report on the Widows' and Orphans' fund showed an increase of £15,000, the total being £447,000, as compared with £432,000 in the preceding year.

The report on the Sustentation and Augmentation funds showed a decrease in the Sustentation fund of £1,000, the total being £217,778, while
the Augmentation fund amounted to £15,123, an increase of £385. In its resolutions on Church and Education the Church in May moved that the congregations be aided in favor of disestablishment, and expressed its sympathy with the free churches of England in their resistance to the education bill.

The General Assembly met in Glasgow, May 20. The Rev. Dr. Robert Howie was chosen moderator. A day was spent in the discussion of the report of the College Committee on a memorial and orations relating to the views expressed by Prof. George Adam Smith in his book Modern Criticism and the Preaching of the Old Testament. The committee reported that it had concluded that it was not its duty or that of the Church to originate any process, not because they accepted the critical results that were presented by Prof. Smith, but because they felt that the time had not come for judgment on any of the problems with which his book dealt. These were amongst the region of discussion. That volume linked itself to a great movement that touched and embraced within it questions of literary analysis, questions needing detailed examination; and it would have been on that movement, and not on a narrow question, that the Church would have most clearly made its voice heard. The College Committee originated or addressed the origination of a process. It should be remembered that Prof. Smith’s volume had been issued in defiance of a law, that the committee at the same time felt that he had sometimes been betrayed into forms of expression that were not always wise or fitted to present his views in the best light, and that Smith himself spoke in explanation of his position, saying that from the bottom of his heart he believed in the Bible as the revelation of God to sinful man. He had never said that there was any discrepancy between one Testament and the other. The resolution of the Assembly accepted the recommendation of the report that it was not the duty of the Church to institute any process against Prof. Smith in connection with his book, while it declared that it was not to be held as accepting or authorizing the critical theories therein set forth; expressed its unqualified regard for the written Word; called upon ministers and professors who might take part in these discussions to be careful that reverence for Holy Scripture should be conspicuously maintained by all evangelists for; and recalling the results of former discussions, exhorted the people not to be soon shaken in mind by what they heard of statements regarding the Bible or some part of the church to be contended for.

X. Presbyterian Church in England.—The statistical report made to the Synod of this year in England promised to be a valuable document, and showed that the congregations had been aided during the year, bringing the whole number of congregations up to 326, while the membership had risen from 78,071 to 78,924, and the membership of Sunday-schools to 1,967. The total income of the Church had been £230,861. The church siting available numbered 167,945, against 166,391 in 1900. Five churches were in course of building. The debt upon church property amounted to £267,686, as against £110,063 at the close of 1900.

The total income for missionary work had been £262,926, including £20,000 from the Sturge bequest. The mission in China returned 87 organized congregations, 123 preaching stations, and 7,500 members. Of these congregations, 54 constituted “native Chinese pastorates as fully organized as any of the home organizations, none of which received a penny from the home funds.” The Synod decided to cooperate with the United Free Church of Scotland in the support of the Livingstonion Mission, Africa, and to incorporate it as one of its schemes.

The Synod met in Newcastle, May 6. The Rev. A. H. Drysdale presided. It addressed the meeting on the subject of The New Puritanism. The report on home missions embodied the proposals for a proposed permanent Church Building fund, which were adopted. In the past periodical funds had been raised, of which the one recently closed had amounted to £60,000. It was now decided to aim at raising at least £5,000 a year. Congregations were urged to aid the committee in raising the annuity for aged and infirm ministers from £50 to £100. Two ministers were set apart as Synod Evangelists for the year. The Finance Committee was empowered to set apart a minister for a limited time to carry on a pioneer church extension work. The Synod decided to assist in providing places for English-speaking travelers. While the Synod sends delegates to the United Free Church Assembly in Scotland and has fraternal relations with the Synod in England in connection with the Church of Scotland, it found it inadvisable to go forward in the establishment of similar relations with the Established Church of Scotland at the present time.

XI. Presbyterian Church in Ireland.—The General Assembly met in Belfast, June 2. The Rev. Prof. Henry was chosen moderator. Provision was made for the retirement of ministers at seventy years of age and the appointment of an assistant and successor. Another measure adopted permits the several sessions throughout the Church to select as their representative in the Assembly any elder of any congregation under its jurisdiction. A specimen organ, placed in the vestible of the church where the Assembly met, was receive for legal of the Purity of Worship party. The total amount received by churches and Sabbath-schools during
the year was returned at £299,307, and the total ministerial income was £111,317. The Board of Missions reported that the colonial mission had a credit balance of £609, and the Continental mission one of £536; while the other missions had debtor balances—the Irish of £1,906, the Jewish of £2,448, the foreign of £2,776, the Indian Education fund of £1,248, the home mission fund of £1,098, and the home mission fund of £2,702.

XII. Welsh Calvinistic Methodist Church.

—The statistics of this Church, presented to the General Assembly in May, gave it 1,579 chapels and preaching stations, having siting accommodation for 500,000 persons, 876 Sunday-school buildings, 191 manses, 461 chapel houses, 1,374 churches, 834 ministers, 890 preachers, 160,333 communicants, 74,022 children, 2,532 candidates for membership; total in the churches, 237,277; 1,088 Sunday-schools, with 22,857 officers, and teachers and 204,777 members; and 323,951 hearers in the churches. The collections for all purposes amounted to £206,745.

The General Assembly met in Liverpool, May 13. The Rev. Aaron Davis was chosen moderator. The report of foreign missions showed that there had been a considerable deficit in funds, while the work in the Khasia hills of India had met with encouraging success. The income of the society had been £8,761, and the expenditure £14,626. With the consent of the Assembly the De Luchai field was transferred to the Tract Society. The Committee on the "Forward Movement" reported that its receipts had been £5,998, and its expenditure £3,054. The profits of the London Missionary Society for the year were £1,047, and £1,654 was voted to the General Assembly's mission to the Welsh in London was represented to be in a satisfactory condition. These people had now 16 churches and preaching stations, 14 branch Sabbath-schools, 10 ministers, 8 undenominated preachers, 95 deacons, 4,005 communicants, and 931 children, with 5,551 hearers at their services, and had contributed £8,459 during the year. The Committee of the Twentieth Century Fund reported that £27,704 had been promised to it, and £50,000 had been paid. The fund would be open till the end of 1909.

XIII. Presbyterian Church in New South Wales.—The General Assembly of the Presbyterian Church in New South Wales met in Sydney in June. The Rev. John Walker was chosen moderator, and the Assembly insisted upon the necessity of the Church putting more energy into its work and extending it. As aids in the improvement of existing conditions, he proposed the institution of three new offices—those of a superintendent of parishes, a home mission organizing commission, and a church evangelist. The suggestion for the appointment of a superintendent of parishes was accepted by the Assembly, and Mr. Walker was chosen to the office. The other suggestions were accepted in principle, contingently on men and means for carrying them out being found.

XIV. Presbyterian Church of New Zealand.—The union of the two Presbyterian Churches in New Zealand—the Church of Otago and Southland and the Northern Church—was formally completed in December, 1901, when the act of union was unanimously adopted by the Assembly, and the moderators of the two churches signed the union act and gave each other the right hand of fellowship as representatives of their respective churches. The negotiations for union had been going on for a considerable time, and had the consent of Parliament in consequence of an apprehension by the Southern Church that the validity of certain trust deeds of which it enjoyed the benefit might be impaired if it lost its identity. This apprehension having been set at rest by a decision of the courts, union became easy. Conferences with reference to union have been begun between committees of the Presbyterian and Congregational Churches in Australia. XV. Conference of representatives of those Presbyterian Churches which insist upon the exclusive use of the Psalms in the service of song in worship was held in Belfast, Ireland, Aug. 6-8. Among these churches are the Presbyterian Church in Ireland, the various Reformed Presbyterian Churches in Scotland, Ireland, and the United States, the secession churches, and the United Presbyterian Church in North America. A different person officiated as chairman at each session. The program included more than 20 papers and addresses of argumentative, historical, and critical character, presenting the subject in various aspects. The divine authority of the Psalms was insisted upon, while it was argued that hymns were instituted by such authority. Arguments were presented for the sufficiency of the Psalms for all occasions of worship, and illustrations were adduced from argument and experience of the adaptability of Psalms to modern purposes and contingencies. In a paper on The Twentieth-Century Interdenominational Psalmody Revision Movement, the Rev. J. C. K. Milligan, of New York, described a movement for a revision of the Psalms contemplating a metrical version, which would more favorably commend them to the Christian public. The effort would be made to meet every objection that could be brought against the Psalms by those who preferred hymns by correcting the defects in the old revision and seeking to impress the exact thought of each line of the original in the language of the authorized and revised versions of the Bible and in the best form attainable. Good progress had been made with the work, and it was hoped that the Psalter would be completed in May, 1903.

PRINCE EDWARD ISLAND, a province of the Dominion of Canada; area, 2,000 square miles; population in 1901, 103,259; capital, Charlottetown.

Government and Politics.—The ministry that Arthur Peters formed early in the year as a result of Premier Farquharson's retirement and election to the Dominion House of Assembly, continued to be that of himself as Premier, President of the Council, and Attorney-General; Benjamin Rogers as Provincial Secretary, Treasurer, and Commissioner of Agriculture; J. H. Cumminskie, Commissioner of Public Works; and Messrs. R. C. McLeod, J. W. Richards, Peter McNutt, J. F. Whear, and George Forbes as members without office. The only changes were in the premiership and the substitution of Mr. Whear for Mr. M. McDonald. The Legislature was opened by Lieut.-Gov. P. A. McIntyre on March 11, 1902, with an address from the throne, of which the following were the important passages:

"I regret that the long-protracted war in South Africa still continues. Another contingent from the Dominion of Canada, including veterans from this province, departed for the scene of war in the month of January. It is pleasing to note the probabilities of an early conclusion of the war, and that our citizen soldiers now serving in South Africa will speedily return to their homes.

"The untimely death of the late President of the United States, the Hon. William McKinley, caused a feeling of mourning in this province as well as in all parts of Canada."
For a number of years this Government has been pressing upon the Dominion authorities the right of its people to have a fisheries award under the Halifax Commission. I am pleased to inform you that it is the purpose of my Government still to urge this claim, and I have no doubt that, in conjunction with the Government of the province of Quebec, which is now moving in the matter, the claims of both governments will eventually be recognized and the amounts justly due paid over to the provinces.

The inauguration of farmers' institutes in Prince Edward Island, under our Department of Agriculture, has been a great stimulus to our farming industry, and the province will doubtless be greatly benefited by the formation of these societies. The establishment of a dairy school in our province, assisted by the federal and provincial governments, will, I am sure, result in securing a higher standard of, as well as greater uniformity in, the quality of our dairy-products, which now form a very important part of our agricultural exports. Arrangements are being made for the importation this season of some improved breeding stock, comprising horses, cattle, and swine. Measures will be submitted to you for the licensing of milkmen, for the inspection of live oyster-beds, under the regulations adopted by the Federal Government. This decision has been adverse to the province, on the ground that the Supreme Court of Canada has the power to make such regulations. Since this decision, negotiations have been had between my Government and the federal administration, and the matter will likely be so arranged as not to interfere with the rights of the farmers to dig mussel mud as they have heretofore been accustomed to do, and at the same time to conserve in a proper manner the oyster fisheries of the province.

The new wing to the insane asylum has been completed, and a large number of the unfortunate patients have been transferred from the old building. It is providing for their better classification and avoiding the overcrowded state of the institution. Since last session the constitutionality of the prohibition act passed in 1900 has been upheld by the Supreme Court.

Proration took place on April 11, after the following acts and other minor ones had been assented to on behalf of the Crown:

To amend the public roads act of 1901.
To amend the saw relating to trustees.
To amend the prohibition act of 1900.
To amend the public schools act of 1877.

The chief point in the work of the session, aside perhaps from the decision of Judge Hodgson and the action of the Legislature thereon, were the development of the caucuses system and the increased taxation. The following from an editor in the Charlottetown Guardian, a paper usually friendly to the Government, may be taken as correctly summarizing the situation: "A feature of the session of which the influence will be distinctly felt is the increase of taxation imposed, but rendered necessary by the state of the provincial finances. If all were quite as sure as the Premier promises himself to be that they shall shortly recover from the Dominion Government our claim for the fishery award, amounting to a million or more, these increased taxes might at least have been postponed to await the result. But an old claim is a most uncertain one; it is as uncertain as cash in the treasury. So we must accept the increase of the road tax, and the added 50 per cent. to the income tax on banks. There will still probably be a general depression in all transactions. The caucus system was much in evidence, and seems to have obtained a greater prominence here than in other provinces of Canada. In fact, the public business is so fully shaped in caucus as to leave but little for the House to do as a deliberate body. Many matters appear in a clearer and different light after being examined from the Opposition standpoint, and the country should have the benefit of this criticism before being committed to important new departures.

The Treasurer referred with pride to some increases in expenditure, such as upon education, which had grown from a yearly average of $109,292 under Conservative rule, to $124,203 under his party. He placed the public debt at $652,117, of which the Liberals were responsible for $471,117. Since they attained power in 1892 $350,155 had been expended on capital account and finally charged to this indebtedness, and the remainder had been spent upon Prince of Wales College, the insane asylum, etc. The Opposition, pointing out that the debt was a floating liability, really amounting, with certain unpaid accounts, to more than $700,000; that $220,000 was due to the banks, and $176,998 was in the form of temporary loans, liable to be called in at a moment's notice. The revenues were placed at $309,445 for the year ending Dec. 31, 1901, but the Opposition contended that $26,014 of this amount were proceeds of a sale of debentures and were not revenue at all. The expenditures were $330,632, and this left a deficit, according to the Government, of $20,000, and according to the Opposition of $45,000. The revenues included $196,531 from Dominion subsidies, $64,992 from various taxes—land, income, road, commercial travelers, and corporations; $17,317 from a paper usually friendly to the Government, may be taken as correctly summarizing the situation: "A feature of the session of which the influence will be distinctly felt is the increase of taxation imposed, but rendered necessary by the state of the provincial finances. If all were quite as sure as the Premier promises himself to be that they shall shortly recover from the Dominion Government our claim for the fishery award, amounting to a million or more, these increased taxes might at least have been postponed to await the result. But an old claim is a most uncertain one; it is as uncertain as cash in the treasury. So we must accept
items during Conservative and Liberal government of the island. The totals were respectively $392,667 and $674,626. From 1890 to 1890, he said, the former was in power an average of $275,577, while from 1892 to 1901 inclusive the Liberals averaged $312,774. In the first term of ten years a total of $2,727,863 was expended, and in the second period $2,137,743. All were increased at $399,877. The result for 1902 were given by the Treasurer as $318,811 revenue, against $284,431, estimated, for 1901. The expenditure was placed at $201,782, compared with $196,826 in the preceding year. The increase in the expected receipts was mainly in the $15,000 additional Dominion subsidy and larger returns from road tax and income tax.

Taxation.—A question considerably discussed was the relative taxation of town and country districts in the island. The Charlottetown Guardian pointed out on April 5, that the population of that city and Summerside was 14,845, and that the rest of the province had 88,303. Yet of the expenditures $53,264 went to the country districts, while they only paid in taxes $40,928. In comparison, the expenditure upon education, it was said that out of $114,755 the two cities received $10,650, or 71 cents a head, and the country $104.16, or $1.31 a head.

An important issue also was that of the tax on commercial travelers. On May 3 it was announced that the city of Charlottetown would oppose the passage of the provincial Government and tax all "transient traders" in its midst. All commercial travelers, therefore, became liable to a tax of $300 from the city, in addition to the Government's $200 impostion. Three days later the provincial Supreme Court decided by unanimous judgment that the provincial taxation of resident agents was unconstitutional and at variance with the federal character of Canadian institutions. Meanwhile, the Opposition in the Legislature were denouncing the increase in the income tax, the road tax, and the tax on banks, and one Conservative paper, the Examiner, declared could not be worse, since the province is drifting toward the brink of ruin.

Prohibition.—This question aroused a certain amount of discussion, although public opinion had one would do the subject more justice. In the debate that followed a number of reflections were cast upon physicians and druggists for their alleged misuse of their privileges under the act. An amendment was accepted making it possible for duly qualified druggists and chemists to sell liquor for exclusively medicinal purposes.

Education.—On March 29, 1902, the annual report of the Chief Superintendent of Education was submitted to the Legislature. It contained the usual statistical tables, special reports on the Macdonald Manual Training-Schools, the Provincial Teachers' Association, the Summer School of Science, the Charlottetown and Summerside School Boards, Prince of Wales College and Normal School, and from the district inspectors. The number of district and schools in the province in 1901 was 474, an increase of 4. The number of school departments was 590, an increase of 4. There was one vacant school. The number of teachers employed was 558, an increase of 3. The average number for males was 20, and the female teachers 290. The average salaries were: first-class male, $401.35; first-class female, $306.81. The highest for males of this class was $700, and the lowest $300; for females the highest was $350, and the lowest $230. The total enrolment of pupils was 20,779, a decrease of 510; the average daily attendance was 12,350, and the percentage of attendance was 59.3, both showing a slight decrease. The expenditure by the Government for education was $128,288, being slightly less than the previous year. The amount voted at school meetings were: for supplements, $8,935; school-buildings, $8,005; contingent expenses, $19,616; total, $36,847.

Agriculture.—Two documents upon the position of Prince Edward Island in this respect appeared in 1902. The first was the slight summary of work published by the provincial department and dealing with its expenditure of $2,536 in the encouragement of farming and cattle-raising. The other was the elaborate statement in the Dominion census returns for 1901, from which the following details are extract: In 1891, the total value of farm property was $30,434,069. The total gross value of farm-products for the census year was $4,764,674 for live stock, $2,648,823 for animal products. The average value of horses on farms per head was $63.64; milk cows, $22.04; other horned cattle, $10.83; sheep, $3.98; hogs, $7.41; value of dairy-products was included the milk and cream sold to cheese and butter factories, amounting to $464,032. There were in operation in the island during the census year 47 factories, of which 27 made cheese and butter, 15 made cheese only, and 5 made butter only. The cheese product was 4,457,519 pounds, worth $449,006; and the butter product 682,220 pounds, worth $117,735. In the former census year (1899) there were four cheese factories in the island, and the total value of the product was $8,448. The rent value of leased farms was 95 cents an acre, and the rate of wages for farm labor was $3.58 a week, including board.

The number of bearing and non-bearing apple-trees in the island was 202,010; of peach-trees, 163; of pear-trees, 1,982; of plum-trees, 27,480; of cherry-trees, 70,431; of other fruit-trees, 57, 924; and of grape-vines, 749. The yield of grain in the last census year was 194,487 bushels, and in the former census year it was 60,325 bushels.

PROTESTANT EPISCOPAL CHURCH IN THE UNITED STATES. A summary of the statistics of church progress in the year shows the following: Within the United States and their possessions there are 80 dioceses and 21 missionary districts, under the care of 80 bishops. In
foreign lands there are 5 missionary districts, viz., Cape Palmas and ports adjacent, Hangkow, Shanghai, Kioto, and Tokio; and 4 churches under a concordat with the House of Bishops, viz., the churches in Brazil, Haiti, Mexico, and Continental Europe. The number of clergy is 5,226; parishes and missions, 6,544; priests ordained, 136; church edifices, 5,630; baptisms, 60,001; confirmations, 45,800; communicants, 734,146; Sunday-school teachers, 45,018; Sunday-school scholars, 415,858; parish-school teachers, 358; parish-school scholars, 7,631; industrial-school teachers, 358; industrial-school scholars, 4,106; contributions, $15,596,267.


By the action of the convention of the diocese and with the consent of the General Convention, the name of the diocese of Indiana was changed to the diocese of Indianapolis.

An ordination to the episcopacy was held on the occasion of the convention of 1901 directed that the term "missionary district" should hereafter be used in the canons of the Church instead of the term "missionary jurisdiction." On Jan. 31, at St. John's Cathedral, Honolulu, the Right Rev. Alfred Willis, D. D., formally surrendered his jurisdiction over the former diocese of Honolulu to the Right Rev. William Ford Nigh, D. D., bishop of Hawaii, who accepted the former diocese as a missionary district of the American Church. At the meeting of the House of Bishops, April 16 and 17, the Rev. Henry Bond Rector, rector of St. Paul's, San Diego, Cal., was elected missionary bishop.

In response to a request from the synod of the Mexican Episcopal Church, dated Dec. 18, 1900, asking for the consecration of three bishops for this Church, the House of Bishops, in their April meeting, recommended the presiding bishop to take order for the consecration of three bishops for the Mexican Church, subject to the consent of the majority of the bishops of the Church. The names recommended were the Rev. Henry Forrest, as episcopal vicar and resident representative of the Board of Missions; the Rev. Fausto Ortuwea; and the Rev. José A. Carrion. In due course it was reported that a constitutional majority of the members of the House of Bishops had given their consent. The consecration was to be at a meeting of the House of Bishops to consider and decide the question of consecrating one or more bishops for the Mexican Church.

The House of Bishops in April changed the title of the missionary district of Porto Rico and Vieques to the missionary district of Porto Rico. The Rev. William Cabell Brown, D. D., deacon, was accepted as bishop of this district, and the Rev. James Heath Van Buren, rector of St. John the Baptist's, San Juan, Porto Rico, was elected in his stead. The Bishop of Porto Rico has charge of the district of Cuba also, it having been transferred to him from the charge of the Bishop of Pennsylvania.

The new missionary district of Salina (western Kansas) was on its formation placed under the episcopal superintendence of the Bishop of Kansas. Among the new members of the district are the Rev. Nathaniel Seymour Thomas, rector of the Church of the Holy Apostles, Philadelphia, Pa.; the Rev. and Mrs. Henry T. Haigh, rector and wife of the Church of St. Luke, Kansas City, Mo.; the Rev. and Mrs. R. C. Ewing, rector and wife of the Church of St. Andrew, Topeka, Kans.; the Rev. and Mrs. C. W. Harper, rector and wife of the Church of the Holy Cross, Wichita, Kans.; and the Rev. and Mrs. F. A. Brown, rector and wife of the Church of the Holy Trinity, Goddard, Kans., all of whom were previously members of the Kansas district.


Legacies.—The entire receipts of the Domestic and Foreign Missionary Society for the fiscal year ended Aug. 31 were $1,000,018.77. This sum includes the large receipts for "specials" and those for publications and miscellaneous purposes which may not be used by the society in meeting its appropriations. The total amount at the discretion of the board for the work for which it has made itself responsible is $625,170.86, of which $570,948.73 came from contributions, and $52,225.15 from legacies received during the year, such legacies having been designated by the testators either for foreign or domestic missions or for the use of the society. In addition, the board used during the past year $1,080 from a legacy that it had previously received. After all these sums were applied there was a deficit of $119,143.95 in meeting the appropriations. The number of parishes and missions which contributed to the work of the society by or through any agency the proceeds of which were contributed to the fund for the year ended Aug. 31, 4,300 parishes contributed by parish offerings as such $329,887; through the Sunday-schools, $108,119.40; and through the Woman's Auxiliary, $70,867.11. The gain in the total number of parishes contributing was 791; in the amount of the parish offerings, $93,093.28; in the offerings of the Sunday-school, $7,771.56; of the Woman's Auxiliary, $7,597.46.

Legacies were recorded amounting to $13,918.36, which, according to the terms of the wills, were permanently invested, and $28,715 was received from legacies and paid out as "specials." The increase in contributions was $119,143.95, which was temporarily invested by drawing upon the reserve deposit of $109,120.81 (set aside by the Board of Managers to meet payments falling due in the early months of the year, when contributions, as a rule, are smaller than they are later in the year) as soon as possible, and the $12,189.46 of the bequest of Rev. Cleveland Keith, applicable only to the China mission.

A system of apportionment among the parishes
and churches was put into operation so that each diocese was guided in its contributions by the amount expected of it to meet the entire amount desired by the society. Monthly reports were issued by the treasurer. The success of the new system was seen in many dioceses and missionary districts exceeding the amount asked of them. With four exceptions every diocese and missionary district showed an increase in the number of parishes contributing. In the aggregate 1,388 more parishes and missionary districts contributed this year than last. The extension of time to March 1, 1902, before putting into action the resolution providing for a 10-per-cent. reduction in appropriations in the event of a deficit of $100,000 at the beginning of the fiscal year Sept. 1, 1901, resulted in a rescinding of the action in consequence of the favorable report in February of the bishops as to the successful working of the apportionment plan. The amount available for domestic missions was $906,453.54, of which sum $275,553.47 was received as "specials" and paid out over and above assessed or invested permanently. The amount for "specials" given includes $82,955.23, being the result of the united offering of 1901 of the Woman's Auxiliary. The payment in 1901 was to the amount of $172,666.12; of Indian, $88,174.98; of colored, $67,021.14; specials were $135,403.99; Woman's Auxiliary united offering of 1901, $53,400; portion of Woman's Auxiliary offering of 1898 applied to appropriations for domestic missions, $14,089; legacy expenses (half), $28,052; half amount paid to annuitants, $694.50; half cost of advertising these reports, $4,024.68; printing and reports of the board, Spirit of Missions for the clergy, pamphlets, and leaflets for gratuitous distribution, $11,875.99; legacies for investment, $3,025.89; legacies paid to certain bishops, etc., at their discretion, $19,625; half amount withdrawn temporarily for the "Ann Eliza Tweddale Deposit" for domestic and foreign missions, $12,605; making a total of payments on account of domestic missions and specials, $583,062.49, and leaving available for domestic missions and specials at the close of the fiscal year a balance of $112,991.

The total amount for the fiscal year applied upon the work of the Church in foreign lands was $400,730.84, but of this sum $117,600.03 was received as "specials" to be paid over and above appropriation or to be invested permanently. The amount for "specials" includes $24,533.99, the foreign portion of the united offering of 1901 of the Woman's Auxiliary. The statement of appropriations and resources for the year is as follows:
Balance of appropriations on Sept. 1, 1901, unpaid, $51,359.10; appropriations Sept. 1, 1901, to Sept. 1, 1902, $500,283.68; received for foreign missions, $129,373.70; one-half general offerings, $136,083.14; legacies applied toward the appropriations, by order of the Board of Managers, $331,213; undesignated legacies to the society, $25,501.84; making a total of $292,070.81, which shows a deficiency for foreign missions of $59,571.97.

Some facts gleaned from the reports of the missionary bishops are given below:
Church work among the Indians is being carried on in 14 dioceses and missionary districts under the jurisdiction of their bishops, aided by 51 clergymen, of whom 29 are Indians, 83 laymen, and 38 women, in all 172 workers. There are over 250,000 Indians in the United States and about 35,000 in Alaska. Instead of rapidly dying out as a race, the Indians have held their own, and some tribes, such as the Cherokees and Navajos, have nearly doubled. As a result of the educational system adopted by the Government and the religious denominations, 96,000 Indians have discarded native dress for that of the American citizen, 32,000 can read, $8,000 speak the English language, 21,000 live in houses, 88,632 are self-supporting, and $8,800 own taxable property.

In Alaska, the bishop reports 13 church buildings, over 100 baptisms and 44 confirmations for the year, $1,212.13 in offerings. The amount of expense for the district was $7,515.48.

Church work among the Swedes in this country embraces thirty odd parishes and missions with more than 75,000 communicants under the charge of 22 Swedish clergyman of the Church. Work among the deaf-mutes is carried on by 2 general missionaries in the employ of the board. In the Western district the missionary ministers in the sign-language to 600 communicants. Work among the colored people lies principally in the Southern States, covering 21 dioceses and 3 missionary districts with a community consisting of 5 bishops, 5 presbyters, and 5 laymen. There are 8,000 communicants, worshipping in 200 churches and chapels, in charge of 100 clergymen.

The appropriation for 1898 was $652,000. The workers number 108 clergymen, 65 laymen, and 145 women—318 in all.

Church work in the Philippines has been placed on a permanent basis through the decision and confirmation of its bishop, the Rev. Charles H. Brent. Just prior to the bishop's sailing for the islands on May 17 a person whose name was withheld gave $100,000 to buy cathedral in Manila. A further gift of $25,000 from Mr. and Mrs. George C. Thomas will provide buildings for parish work to be erected in connection with the cathedral foundation. The bishop's settlement, with 9 clergy, 2 trained nurses, some kindergartners, some lay missionaries, including a medical man, will cost $5,000 a year to maintain. This is not yet accomplished, but is the plan of the bishop. An industrial school for teaching agriculture and woodwork, to cost $2,000 a year for maintenance, is also desired. A movement is on foot by certain well-known and influential men of New York to raise the sum of $1,000,000, the income of which is to be given to Bishop Brent for his work. About $75,000 of this amount is in sight and other contributions through its bishop, reports a growing disposition to depend upon themselves in the matter of building churches and supplying other needs. In the year 1 priest was ordained, 2 candidates admitted for priest's orders, 15 lay readers licensed, 5 additional catechists and teachers commissioned, 1 corner-stone laid, 310 persons baptized. The grand total of baptisms in the district is 5,842; of confirmations, 2,987; present number of communicants, 1,596, of whom 943 are native Africans. Contributions during the year, $4,901.52.

The bishop of the missionary district of Shangh hai, China, reports that province as the most difficult for evangelistic work in China by reason of the attitude of indifference among the people. The province is wealthy, the people not exposed to famine, as in other parts. The feeling of pride in the literary classes is particularly strong, and the consequent indifference to the preaching of the Gospel is harder to overcome than active opposition. Statistics show the number of catechumens as 44; baptisms, 71; confirmations, 29; baptized Christians, 73; rapidly dying out as a race, the Indians have held their own, and some tribes, such as the Che
catechists; 7; Bible women; 7; contributions (Mexican), $4,131. In addition, $10,000 have been contributed by subscribers to the building of a new hall at St. John's College. In St. Luke's Hospital, the Woman's Hospital, St. John's Dispensary, and a small dispensary opened in the old city of Shanghai, there were treated 922 in-patients; 32,275 dispensary patients, of which 12,033 were new cases. The report from the district of Hankow shows mission work to have been begun in two provinces hitherto occupied, Kiangsi and Hunan. The number of baptisms for the year is not large, as an inevitable after-effect of the Boxer troubles. Rapid improvement is noted in all parts of educational work indirectly due to the fact that the court has sanctioned Western learning and ordered a college to be established in the capital of each province. Since all aspirants for office must pass an examination in branches of Western learning, an eagerness to acquire it is evinced at least by all office-seekers. The figures of the three hospitals of this district show 5,485 new cases and 11,873 patients returning to the clinics, and 488 in-patients and 362 operations in the hospitals. The number of baptisms is 210; of confirmations, 9; of communicants, 694; of contributions (Mexican), 96.03.

The advances made in the mission work in Japan show new entries into two large cities, Akita and Wakamatsu. In the latter place a lot has been purchased and buildings suitable for missionary home and church services about to be put into order for use. At Kumagai 3,000 yen was spent for a lot and house for the missionary, and at Takaoka 1,000 yen. Fifty-one were confirmed at the church in Aomori. St. Paul's College, Tokyo, has as many students as it can receive. More than half the running expenses, which amounted to 9,000 yen, were met by fees. Grace Church, Tokyo, became entirely independent of mission help from July 1. The Bishop of Tokio reports 4 deacons and 1 priest ordained; 221 baptisms; 124 confirmations; and contributions (Mexican), $4,608.40.

The Bishop of Kioto reports 185 baptisms, 78 confirmations, 728 communicants, $2,573.38 contributions in Japanese yen.

The Church in Haiti is established at 22 points. The baptisms in the year numbered 102; the confirmations, 8; the communicants, 604; the contributions, $2,709.75.

The Mexican Church is awaiting with interest the future action of the House of Bishops in consequence of the doubt in the minds of many as to the constitutionality of the action taken in Cincinnati relative to the appointment of three bishops. The statistics from Sept. 15, 1901, to Aug. 15, 1902, are as follow: Baptisms, 59; confirmations, 108; communicants, 754; schools, 4; pupils, 63; offerings, $870.07; congregations, 32; lay readers, 6; priests, 8; deacons, 8; candidates for holy orders, 7; total receipts from the United States, $7,891.87.

The statistics of the American churches in Europe show the number of churches to be 9, in Paris and 1 each in Dresden, Florence, Geneva, Lucerne, Munich, Nice, and Rome. The number of clergy is 13; organized churches, 6; chaplaincies, 3; baptisms, 38; confirmed, 78; communicants, 1,475; contributions, $60,000.

The receipts of the American Church Missionary Society amounted to $65,978.47; cash on hand Sept. 1, 1901, $8,159.62. The disbursements were $59,133.81, and the cash balance on hand Sept. 1, 1902, $15,004.58. The disbursements for Brazil for missions were $31,772.01; for specials, $844.16; for church building, $4,572.90; for insurance, $155. The statistics for 1902 show 8 clergy; 4 church edifices; 264 baptisms; 54 confirmed; 616 communicants; $6,654.26 contributions.

For Cuba, the disbursements were: For missions, $13,368.43; for specials, $158; for the Church in Bolodrun, $1,284.25; for the Church in Havana, $2,374.40. The statistics for Bolodrun and Havana (Mantanaz not reported) show 32 baptisms; 121 communicants; 8 Sunday-school teachers; 60 scholars; contributions, $1,549.30.

The Society for Propagating Christianity among the Jews reports a steady advance in its work. The report from Emmanuel House, Philadelphia, states that its building is wholly inadequate to accommodate the number desired to partake of its benefits. Of the 243 young men and women enrolled the house can accommodate but 80. The New York school enrolled 81 this year. The collections and contributions amounted to $334.07; the expenditures, $13,762.92; cash balance to new account, $305.06; but it was found necessary to borrow $6,525 to meet current expenses.

Woman's Auxiliary.—The summary of work accomplished by the Woman's Auxiliary and its junior department in 60 dioceses and 24 missionary districts shows: Contributions in money, $256,039.03; and boxes valued at $190,700.84. Of the total of $449,829.87, the junior department gave money and boxes to the value of $35,629.85. This total includes the contributions for the year, the specals, and the income and money withdrawn from the united offering of 1892, 1895, and 1896. In addition to it the united offering of 1901 of $107,589.22 makes the total of $534,419.05.

Church Building Fund.—The American Church Building Fund Commission reports that during the year it dispensed gifts to complete 43 churches amounting to $8,175; loans to complete 4 churches, $10,500. The contributions to the permanent building fund were $4,907.27; interest on loans and investments, $21,041.98; loans returned by parishes and missions, $34,168.78; investment loans returned, $15,000. The fund at present amounts to $372,125.40.
LIEUT.-GOV. SIR L. A. JETTE WITH A SPEECH FROM THE THRONE, WHICH THE FOLLOWING ARE THE SIGNIFICANT POINTS:

"Colonization is admitted to be of the greatest importance in connection with the development of this province. Although there is manifest unanimity in public opinion on this point, it is none the less true that there is extreme diversity as to the methods to be followed to attain the end that all have in view. A bill will accordingly be submitted to you for the appointment of a commission whose duty it will be (1) To make a careful study of the existing law, and to seek the means of improving it. (2) To examine and report upon such new projects or systems as may be submitted to it. (3) Finally, to consider all questions relating to colonization and the granting and settlement of the public lands, without losing sight of the slender resources of the province and the interests of the lumber industry.

The negotiations opened some time ago with the Dominion Government to secure the recognition of our rights to the fisheries in the territorial waters of the province have been continued. My Government has further submitted to the federal government two important claims connected with this question of the fisheries—one for the reimbursement to the province of the amounts collected since 1867 for fishing licenses and permits, the other for its share of the indemnity paid by the United States for the privilege granted the citizens of that country by the Washington treaty to fish along our shores.

"The various reforms effected in the past few years in our educational system have produced satisfactory results. The free distribution of school-books and maps has been well received by the people of the province. I have much satisfaction in informing you that a great many school municipalities and educational establishments have availed themselves of the offer made by my Government, and that over 100,000 copies of Mon Premier Livre have already been distributed.

"The aid granted to municipal councils for the improvement of roads has awakened the attention of municipalities to this important question, and I am pleased to state that there is marked progress in the making and maintenance of highways.

"My Government continues to encourage the advancement of agriculture and of dairy-produce, by providing for the improvement of stock breeding, by granting premiums for cheese factories, and by diffusing the necessary technical knowledge through the medium of special publications and special lectures."

The address in reply was passed without division. There was some brief and courteous criticism by Mr. Flynn, the Opposition leader, and remarks by the Premier in which he drew attention to the important new country just opening up for development. East of the Saguenay, he said, there are water-powers and supplies of wood sufficient for an almost infinite production of pulp and paper. Most people had but a very imperfect idea of the proportions of the rivers that watered this vast territory. Thus, the Manicougan, whose great falls had been measured and computed last year, was more considerable than the St. Maurice; both as regards length and volume of water. Its first falls were capable of producing 100,000 horse-power, and ten miles higher were other falls still more extensive. These great falls were also at a port that was equally accessible in winter and summer, and were in the vicinity of practically inexhaustible spruce forests. The Premier spoke also of the Betsiamits, the Moisie, and the St. John of the north shore, and of the large enterprise recently established by the Messrs. Clarke, of New York and Toronto, on the Ste.-Marguerite.

The legislation of the session was not as important as were the acts presented and refused by the House or the Government. A measure proposing to abolish provincial appeals to the Judicial Council of the imperial Privy Council, except in certain cases arising out of the interpretations of federal jurisdiction, was widely discussed, and finally fell for want of support. The following were the chief measures passed during the session, which was prorogued on March 25 after a non-confidence motion had been defeated by 38 to 3.

To amend the law respecting holidays.
Respecting the Protestant hospital for the insane.
To amend the joint-stock companies' incorporation act.
To amend the Quebec license law.
To amend the education act.
To authorize the organization of a commission to assist in the affairs of the colonization and in the development of forest industries.
To amend the Quebec game laws.
To amend the Quebec mining laws.
To amend Article 584 of the Civil Code respecting the registration of marriage contracts.
To authorize municipal councils to prohibit the sale of intoxicating liquors.
To incorporate the Metabetchouan Pulp Company.
To incorporate the Beauharnois Light, Heat, and Power Company.
Respecting the agricultural syndicates.
To amend the law granting exemption from taxation to commercial travelers.
To amend the law respecting civil engineers.
To amend the law respecting dentists.
To amend the law respecting mutual fire insurance companies.
To incorporate the Power, Pulp and Paper Company of North America.
To incorporate the St. Lawrence and Megantic Railway Company.
To incorporate the Agricultural and Industrial Exhibition Company of St. Johns, Province of Quebec.
Respecting butter and cheese exchanges.

FINANCES—The Treasurer, H. T. Duffy, delivered his financial statement in the Assembly on March 12. The ordinary receipts for the year ending June 30, 1901, were given as $4,563,432, and the expenditures as $4,516,237, leaving a surplus of $47,194. The receipts from all sources, including trust funds and sales of inscribed stock, were $4,816,218, and the expenditures, including railway subsidies, Quebec Bridge, trust funds, and redemption of debt, were $4,750,092, a surplus of $66,126. The chief increase in ordinary receipts over what had been estimated were in lands, mines, and fisheries, which returned $575,003 more than had been expected; in licenses, which netted $11,968 of an increase; in direct taxes on commercial corporations, which showed an increase of $51,157; and in the maintenance of the insane, which contributed $21,588 more. The payments in excess of estimates for the year included $41,701 upon legislation; $83,410 upon justice; $15,529 upon public instruction; $24,957 upon agriculture; $25,225 upon colonization and mines; and $48,703 upon services; a total of $273,472. The first payment on account of the
Quebec Bridge subsidy—$30,000—was paid, and an extra expenditure of $13,933 on account of the royal visit was met. The net public debt of the province was placed at $25,491,638, with an additional $13,750,574 as its increase by conversion. The estimated expenditure for 1902–03 was $4,-
581,555.16.

Mr. Flynn, in criticizing the budget speech for the Opposition, declared that the sum of $403,197 received and credited to revenue by the Treasurer was really part of the capital of the province as being the product of timber sales during the year from Crown lands. If this amount were deducted, it would turn the alleged surplus into a deficit of $331,557.

Agriculture.—The report of the Minister of Agriculture in Quebec, dated Feb. 1, 1902, said that conditions showed a marked improvement. The policy of granting Government premiums to cheese factories had proved successful, and $5,000 had been expended in 1901 for the purpose. Farmers' clubs had increased in 1901 from 530 to 543. On Dec. 31, 1900, they had 16,077 members, with total receipts for the year of $86,335 and an expenditure of $60,000. The system of cereal and cattle breeding had been encouraged and improved. M. D'orchy referred to the methods of handling milk as being still the chief obstacle in the way of a greater development of dairying. There was no doubt the dairymen's Convention held at Riviere du Loup on Jan. 9, 1901, Mr. Leon Gerin referred to the results of help from the governments of Canada and the provinces that made the trade in the following terms: "The effects I observe are three: First, the increase in the number of creameries. In 1895, the first year of the service, there were in the province of Quebec 307; in 1899, 711. In the six counties below Quebec in 1895 there were 52 creameries; in 1899, 86. The second result is the increased quantity of butter exported. In 1895 our butter sent to Great Britain was hardly 2,700,000 pounds; in 1900 it exceeded 24,000,000 pounds. The third result is the relative selling value of our butter. In 1895 Canadian butter was quoted at 9 to 13 shillings a quintal than Canadian butter. In the same period we have succeeded in reducing the difference between our butter and Dutch butter by 6 to 9 shillings a quintal."

Mines and Minerals.—There was a great development in asbestos-mining in the eastern townships of Quebec in 1901, and the work done and plans put in operation proved the hope of a good output of chrome in Colnaire and of gold in Beauce next year. Copper also assumed a little more importance. Mica passed through a difficult phase, owing to the low prices. The other minerals of the province were worked as in previous years. A new industry, from which much was expected, is that of compressed peat. A small establishment for the purpose was set up at Caouina and yielded satisfactory results; but in the autumn it was burned.

The Bureau of Mines report showed in the year 1901–02 the issue of 193 prospecting permits and 12 mining licenses. Asbestos was perhaps the most active mineral. From 1,600 to 2,000 men were employed, and their product was valued at $1,284,624. The blast-furnaces at Radon and Drummondville were in full operation, with an extraction of 14,443 tons of pig-iron. The total minerals produced were valued at $1,727,751. In one mine the value of asbestos iron ore valued at $30-978; copper ore at $126,500; mica at $30,690; ocher (calcined) at $14,595; cement at $25,000; and granite at $14,600. The number of workmen employed was 2,792, and the wages paid $865,110.

Public Lands and Forests.—The Hon. Mr. Parent, in his report for the year ending June 30, 1901, said that the territory of the province still available for concession was 6,777,257 acres. In the year 1901-02 acres had been sold for $27,000. Three grants to the extent of 1,700 acres were also given, and 10,900 acres were conveyed to the parents of families of 12 living children. The leasing of fishing privileges and licenses on inland and salt waters yielded $46,357, and hunting permits realized $6,186. The total revenue from woods and forests was $530,874, and with the proceeds of sale held in June, 1901, and of arrears paid amounted to $1,234,072. The total area of all lands granted or sold for colonization was 198,690 acres, against 174,127 in 1900. Referring to the sale of timber limits, 4,634 square miles sold for $375,947, the Premier said in his report: "To comply with the many requests that had been made to me by persons engaged in undertakings such as those I have alluded to, and with the view of supplying raw material to several very prosperous industrial establishments whose existence already dates some years back, and to others whose desire is to put up to auction the lease of a rather large extent of public lands scattered throughout nearly all the agencies in the province, and also to include in the statements of sale certain territories already put up to auction and not bid for." As a sequel to these facts, he gave a list of 28 pulp and paper mills in operation or ready to begin work, and 12 more in process of organization.

Railways.—In the year ending June 30, 1901, the province paid for construction of railways, in money subsidies or land subsidies converted into money, $128,318. The roads interested were the Great Northern, $39,584; the Ottawa and Gatineau Valley, $22,500; the Pontiac and Pacific Junction, $21,524; the Quebec Bridge, $30,000; and the Montfort colonization, $5,000. According to the annual report of the Department of Public Works, the total grants of land to Quebec railways up to the end of the fiscal year was 13,244,160 acres; the number of miles constructed was 998; the total cash payments were $4,451,656. The total railway mileage of the province on June 30, 1901, was 3,451, of which 2,341 miles had been constructed prior to Confederation in 1867.

Education.—The report of the Superintendent of Public Instruction for the year ending June 30, 1901, issued under date of Jan. 10, 1902, described the general condition of the schools as improving, but not yet satisfactory. The following table is compiled from his elaborate statistics:

<table>
<thead>
<tr>
<th>Schools under boards and independent</th>
<th>Roman Catholic</th>
<th>Protestant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,019</td>
<td>2,470</td>
<td>2,549</td>
<td></td>
</tr>
<tr>
<td>30,407</td>
<td>22,163</td>
<td>28,463</td>
<td></td>
</tr>
<tr>
<td>8,005</td>
<td>1,425</td>
<td>1,140</td>
<td></td>
</tr>
<tr>
<td>8,761</td>
<td>1,428</td>
<td>10,189</td>
<td></td>
</tr>
<tr>
<td>3,545</td>
<td>3,485</td>
<td></td>
<td></td>
</tr>
<tr>
<td>270</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,414</td>
<td>1,258</td>
<td>6,187</td>
<td></td>
</tr>
<tr>
<td>4,696</td>
<td>1,053</td>
<td>5,749</td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>157</td>
<td>331</td>
<td></td>
</tr>
<tr>
<td>3,545</td>
<td>1,489</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average Salaries, Male Teachers with Diplomas.

| Elementary | $281 | $1,149 | $1,430 |
| Model and academy | $105 | 928 | 1,033 |

Average Salaries, Female Teachers with Diplomas.

| Elementary | $118 | 301 | 419 |
| Model and academy | $105 | 299 | 404 |
Besides these there were 45 other institutions, universities, colleges, normal schools, etc., attended by 11,626 students. The report showed an increase of Roman Catholic schools, 66; pupils, 4,795; and teachers, 380; and a Protestant decrease of 6 schools and 1,167 pupils, and an increase of 30 teachers. Out of 6,558 lay teachers, only 391 were men, a decrease of 15; and 6,167 women, an increase of 14. Of the 391 men, 307 were engaged in rural schools. The increase in the number of religiosus was 286, showing a reversion to the high figures in this class of six or seven years since. The number of teachers without diplomas was: Roman Catholic, an increase of 119; Protestant, 54. There was a marked increase of Protestants—from 83 to 137—which arose probably from the recently introduced policy of compulsory attendance at the normal school. Graduates often declined the small salaries that were offered, and the school boards illegally appointed teachers who were without diplomas and did not appear to care if they thereby forfeited the Government grant, as this was very small. As to average salaries, there was a general increase. It was most noticeable with the Protestant female teachers, with diplomas in superior schools, who were raised from $152 to $201.

**Criminal Statistics.**—The sentences for drunkenness in the province numbered 1,493 in 1900; for theft, 638; for vagrancy, 662; for assaults, 206. The maintenance of the prisons cost $126,717, against $116,602 in 1899. The following quotations and statement are from the annual report of the Inspectors of Prisons and Asylums for 1900: "The total number of prisoners in the province of Quebec in 1900 was 4,753—3,919 being men and 834 women—against 4,026 in 1899 (3,787 being men and 839 women). The number of prisoners under sixteen years of age is decreasing year by year. We had only 37 in 1900, against 56 in 1899."

**REFORMED CHURCHES. I. Reformed Church in America.**—The following is a summary of the statistics of this Church as they were reported to the General Synod in June, 1902:

- Number of classes, 35; of churches, 652; of ministers, 718; of candidates, 48; of families, 61,775; of communicants, 112,806; of catechumens, 35,468; of Sunday-scholars, 229,208; of Stewards, 124,672 members; of members received on confession during the year, 5,000; of baptisms, 5,597 of infants and 1,278 of adults. Amount of contributions: Denominational, $276,028; for other objects, $115,203; for congregational purposes, $1,531,464.

The Board of Education reported to the General Synod 62 divinity students in the theological seminaries—the smallest number since 1866. Reports were made from Hope College, Michigan, with 206 students, and from 3 academies in the Northwest. The contributions to the work of the board had been $3,735.

The business of the Board of Publication was represented as being in a satisfactory condition, the receipts of the past year having been $23,820, showing an increase of $2,008. The contributions to the Benevolent fund having increased, the board had been able to enlarge that side of its work, supplying needs in hospitals and schools. About 608 necessitous were receiving aid from the Widows' fund.

The Board of Domestic Missions had closed the year without debt. The amount received from all sources had been $205,245 for the mission work—an increase of nearly $10,000—and less than $8,000 to the Church building fund. New churches had been organized and new missions begun, while several churches were about to become self-supporting. The new mission work centering in Oklahoma was prospering, and was represented in the General Synod by the first Indian delegate it had ever enrolled. The contributions in the department of the Woman's Executive Committee had increased from year to year till they now amounted to $31,425, more than 65,000 in advance of those of the preceding year. The Indian missions and the work among the Kentucky mountaineers had been generously supported by this committee.

The receipts of the Board of Foreign Missions had been $114,067 for its regular work and $35,470 for special objects. A debt of $90,110 had been paid, and the board was able to present its report to the General Synod free from indebtedness. The receipts for the Arabian mission had been $11,854 for the regular work and $7,630 for objects outside of the appropriations, among which was the erection of the Mason Memorial Hospital, at Mekein. The mission at Arco, India, now transferred to the charge of the Church of England in India, returned 16 missionaries, 460 Indian agents, 114 non-Christian teachers, 2,305 communicants with a Christian community of 10,096 persons, 167 Sunday-schools, with 5,406 pupils, and 217 other schools, with 5,200 pupils. The mission was an aggregate of village churches, and now included 157 such. Each village, as a rule, had a school and a resident Christian teacher or catechist. Connected with the mission were the college at Vellore and the industrial school at Ami.

The ninety-sixth annual meeting of the General Synod was held at Asbury Park, N. J., beginning June 4. The Rev. Abbott E. Kittredge, D. D., was chosen president. The reply, prepared by the committee to which the subject had been referred, to the questions presented to the previous General Synod by the delegate of the Christian Reformed Church concerned the future attitude of the Church as to school and school matters. About the reason why it did not include in its standards the rejection of the errors of the Remonstrants. As to the former question, regret was expressed at the want of confidence implied in it toward a Church so closely allied and in correspondence, and answer was made to the effect that the whole matter under the Reformed system of government was in the province of each consistory, and the relation of the higher judicatories to it was only appellate. Hence the General Synod was not called upon to make a delverence on the subject. As to the other question, conditions in America at the time of the adoption of the Canons were such as to call for nothing beyond a positive declaration of faith, and hence the negative form, that of the rejection of the errors of the Remonstrants, was deemed unnecessary, and was omitted. The fifth annual report of the special committee on the finances of New Brunswick Theological Seminary showed that $4,984 had been added to the endowment during the year, bringing the whole amount of addition since the committee's work begun, up to $46,000.
The offerings for current expenses, $3,437, having been contributed during the year, had been brought up to a total of $14,050; and with the addition of another gift of $4,000, the total thus far secured was $84,000, besides promises and legacies still outstanding. The committee was steadily keeping in view the conviction of the Synod that $250,000 should be added to the endowment of the seminary to repair its diminished income and increase its equipment for effective service. A report was made of the Western Theological Seminary, at Holland, Mich., and of the progress of the endowment scheme. The second chair had been fully endowed with $30,000, and $8,000 had been secured toward the endowment of the third chair. The report on the action of the 34 classes of the Church in the amended forms which had been approved at the last session of the Synod and referred to the classes, showed that 25 of the classes were in favor of some revision of the forms under consideration. Some desired shorter and simpler forms; some objected to changes in long familiar phraseology; others desired "the language of today for the people of to-day." Many desired the elimination of the position of the baptism of infants, "wholly incapable of any good and prone to all evil," or some change which will bring it into closer accord with other phrases of the Standards. The whole subject was referred to another committee to prepare amended forms conforming as nearly as practicable to the prevailing views of the classes, with the suggestion of the committee that they be revised, and that the new form of these forms, "simplicity, dignity, and verity should be sought rather than elaboration of form"; this committee to report to the next Synod. The institution of a post-graduate course, covering at least one seminary year, was authorized in the theological seminaries. A special committee was constituted to urge each church in the denomination to undertake a definitely evangelistic work during the coming year; the committee is further to consider the methods of such work and its results, and to report to the next Synod. The Synod of New York, consisting of 13 ministers and 80 members, was constituted as an independent native union church by the union of the mission churches of this body and of the Free Church of Scotland, the classes of Arcot, having been admitted; those of the Synod of New York, was set off from that judicatory and transferred to the new jurisdiction in India. The resolutions of the Synod on the Sabbath express additional sentiments on the subject of the Lord's Supper, and affirm the law of the Sabbath as a divine law of perpetual and binding obligation upon all men and the authority of the Christian Sabbath to be derived from it; direct that its nature and the danger to it be intelligently set forth in the pulpit and frequently brought to the remembrance of congregations; testify against Sabbath desecration under such forms as the publication and encouragement of the Sunday newspaper, unnecessary Sunday travel, Sunday visiting, and the playing of baseball, golf, and other games on the Lord's Day; and express "unqualified disapproval" of all political conferences on Sunday. The Committee on a Uniform Version of the Metrical Psalms reported progress. Responding to an overture of the General Synod of the Reformed Presbyterian Church, a committee was appointed to confer with reference to closer cooperation or unity of organization.

The General Synod of the United States.

The following summary of the statistics of this Church is from the Almanac of the Reformed Church in the United States (Philadelphia) for 1903: Number of synods, 8; of classes, 56; of ministers, 1,112; of congregations, 1,091; of communicants, 255,408; of unconfirmed, 198,815; of Sunday-schools, 1,663, with 24,796 officers and teachers and 200,178 pupils; of students for the ministry, 190; of baptisms during the year, 13,437 of infants and 1,830 of adults; of confirmations, 11,306; amount of contributions for benevolent purposes, $233,954, including $90,000 for home and $47,710 for foreign missions; of contributions for congregational purposes, $1,396,054. Number of literary and theological institutions, 17; of periodicals, 17 in English, 5 in German, and 15 published by institutions. In home missions special attention is given to work among Hungarian and Bohemian settlers. The foreign missions are in Japan and China.

The Sunday-School Board had reports from 1,613 Sunday-schools, with 25,938 officers and teachers and 221,917 members, showing a gain in three years of 15,013 members. Fifteen Sunday-school missionaries had been employed during the past three years, 16 schools had been organized, reorganized, or revived, and 7 congregations developed out of Sunday-schools. Since 1894 30 Sunday-schools had been organized, of which 17 congregations had been established. Grants of literature had been made to the Hungarian and Bohemian missions, and inquiry had been made with reference to the publication of Hungarian-English Sunday-school literature, but it had not been begun. An aggregate of 9,573,765 copies of publications had been issued, and the net receipts from sales had been $121,104. The capital of the Publishing Establishment was $18,553.

The report of the Board of Directors of Orphan Homes represented the institutions at Fort Wayne, Ind., and Womelsdorf (Bethany), and Butler (St. Paul's), Pa. The endowments had been raised through donations by legacy, $17,000 during three years. The total receipts had been $29,678.

The Society for the Relief of Ministers and their Widows had expended during the past year $5,900 in aid of 30 ministers and $16,246 in aid of its invested funds amounted to more than $50,000.

The triennial report of the Board of Home Missions covers the work of the boards of the General Synod, the Judicial Synod of the United States, and the German Synod of the East. These altogether returned 145 missions, 17,734 communicants, 179 Sunday-schools, with 19,828 officers, teachers, and pupils; 350,000 contributions of $301,336 for benevolences and $350,401 for congregational purposes. The two boards of the German synods represented their work of organizing the German immigrants in the new agricultural settlements as being in an encouraging condition. The harbor missionary in New York met these people on their arrival and sought to speed them safely to their destination, taking care thus of 500 or 600 persons a year. Toward the apportionment of $3,450 for this harbor work during the past three years only $2,379 had been received. The missions among Hungarian immigrants were growing in numbers and importance, and it had been necessary to bring pastors for them from Hungary. Although $24,000 had been apportioned for them, only $10,124 had been received. The board had under its control a Bohemian church in Cleveland, Ohio, and was contemplating the erection of a church building for Bohemians in Chicago. The Women's Auxiliary of the Society of the General Synod had contributed during the triennium $9,573 to the general and church building funds. The sum of $118,075 had been in-
vested by the board in church property, the full value of which was estimated to be $295,545. Of that amount, $65,750 were borrowed money, loaned to the missions at a lower rate of interest than they could secure. One hundred and twenty loan funds of $500 and more, named by the donor, amounting to $70,000, were held by the boards and loaned to missions on first mortgage in all parts of the Church. Ten of the missions had become self-supporting during the triennium, and 22 new missions had been established. The sum of $19,618 had been received toward the payment of the debt of about $35,000.

The Board of Foreign Missions had received from May 1, 1899, to May 1, 1902, $114,590, or $24,621 more than during the previous three years, of which $14,224 had been contributed in the form of legacies and large gifts. The invested funds had increased $38,760. The mission in Japan, with 10 ordained ministers, 25 unordained evangelists, 25 church buildings, and 21 Bible women, returned a net gain of 511 members and about $1,320 of native contributions. The educational work at Sendai included a boys' school and theological seminary, with 142 students in the theological, literary, and college courses, and the English school. The girls' school had suffered the loss of its building by fire. An industrial home was also maintained. A mission had been opened in China in 1899, converted to a mission prosperous. The board of the girls' school was introducing a system of specialization, under which classes, churches, and societies might directly support some portion of its work in heathen lands.

The General Synod met in its fourteenth triennial session at Baltimore, Md., May 20. The Rev. John H. Prugh, D.D., of Pittsburgh, Pa., was chosen president. The committee having in charge the preparation of a digest of the rulings of the General Synod reported that the book had been prepared and was on sale. The Committee on the Twentieth-Century Movement reported that 13 tracts had been issued and a number of articles had been published and special sermons preached with reference to the scheme. The committee had been referred matters pertaining to the Protestant churches in Germany, Switzerland, Hungary, etc., reported progress. Provision was made for the preparation of a new constitution for the Church by a Committee of Five Members. This committee was instructed to submit the draft of the Constitution to the classes for criticisms and suggestions, from which the committee shall give final shape to the document, preparatory to submitting it to the General Synod. Various measures were approved looking to the strengthening and extension of the foreign mission, to the rebuilding of the school property in Japan which had been recently destroyed by fire, and to the erection of other buildings. A proposition to celebrate the twenty-fifth anniversary of the founding of the SYNOD was approved; and an effort was authorized to raise during the celebration a thank-offering of not less than $25,000 for buildings, endowment, equipment, etc. Classes were in preparation to call the attention of pastors and elders to the objections to allowing independent foreign missionaries or Itinerant missionaries not under the control of any recognized board from the assembly of the congregations of the Church. The sum of $45,000 was appropriated annually for the next three years for the mission work in China, Japan, the money raised by the women's societies not to be a part of the apportionment. The efforts of the twentith-century movement in connection with the Sunday-schools were ordered continued; a higher standard of excellence for all the schools was urged,—in the training of more effective teaching, in the circulation of lesson helps and Sunday-school literature, and the arrangement of Sunday-school instruction in such a way as to lead the children to entrance into the catechetical instruction and membership of the Church. Special offerings were appointed to be taken in the Sunday-schools on four Sundays of the year for different benevolences. Special interest was expressed in the home missions among Hungarians and Bohemians, and the classes were requested to keep themselves in close touch with Hungarian and Bohemian churches and their pastors within their bounds. An annual apportionment of 6 cents per member was laid for church building in the English synods, and the creating of church-building funds was commended to classes, societies, congregations, and individuals. Other measures were adopted for increasing the efficiency of the home missions. The sum of $25,000 was apportioned annually among the English synods. The Committee on Ministerial Relief reported a prosperous condition of the society, a committee was appointed to report to the next General Synod upon a plan to organize and continue a synodical society for this benevolence. Another committee was appointed to report concerning the use of fairs, suppers, etc., for raising Church funds. The Synod decided that it did not recognize a sermon preached by its presiding officer as an official and authoritative utterance of its doctrinal statements. Three different positions were sent up with regard to revision of the Heidelberg catechism, but the Synod declined to accede to their requests. The report of the Committee on the State of the Church, while calling attention to some shortcomings, reported general improvement during the past three years. The number of classes had increased by 1; of ministers by 33; of congregations by 76; of members by 11,000; of contributions for benevolence by $64,867; and of contributions for congregational purposes by $303,449.

A plan of cooperation was arranged between the General Synod's and the two German synods' Boards of Home Missions, under which $4,500 a year will be paid by the churches of English synods to establish German Boards. For this the German boards are to report all their work to the General Synod's board.

III. Christian Reformed Church (Dutch).

The Jaar Boekje of this Church for 1903 gives the following statistics: Number of classes, 9; of congregations, 155; of ministers, 99; of families, 11,340; of members, 19,174; whole number of souls, 58,512. Sunday-schools and Young People's Societies are sustained in most of the churches, but the full numbers are not given.

The Theological School at Grand Rapids, Mich., has theological and literary departments. The Church has Boards of Home and Foreign Missions, of Missions to the Jews, of Ministerial Aid, and for the Retired Preachers' fund. One weekly and 3 monthly periodicals are published, one of the monthly being in English; the other 3 periodicals are in Dutch.

IV. Reformed Church of France.—The Free Evangelical Church of France is a body which separated from the Synod of the Reformed Church of France in 1849, when the Synod declined to subscribe to an evangelical Confession of Faith. About 2,500 members withdrew from the Synod at that time and organized the "Union des Églises Evangéliques." By
ROMAN CATHOLIC CHURCH.

this act of separation the union lost the subsidy which the state afforded to the recognized Reformed Church; and thus the Constitution it affirmed its duty to support itself independently of the civil list, and to retain its autonomy of discipline. It has, however, been assisted in maintaining itself by the Presbyterian Churches of England and Scotland. With the aid of these churches it has engaged actively in the work of home missions. The fiftieth annual report of these missions gives returns of 22 mission stations, 55 substations, and 130 preaching stations, in all of which evangelistic work, and in some institutional work, is carried on. Besides establishing churches, day-schools are organized in many instances, coffee-houses have been instituted, and total abstinence societies have been formed. The mission work being largely among the laborers of France, much relief work is done. About one-third of the expenses of this work are contributed by churches in England and Scotland.

At the Synod of 1902 of the Reformed Church, held at Audoux, both Orthodox and Liberal delegates took part. A resolution was adopted, with only two dissenting votes, declaring in effect, that the Synod was willing to respect all interpretations of the Scriptures to the extent that it has not been made to the spiritual realities and the essential facts of the Gospel history.

V. Presbyterian and Reformed Alliance in India. The seventh Conference of the Indian Branch of the Presbyterian Alliance was held in Allahabad in December, 1901. Fifty missionaries and chaplains were present, representing 9 different churches. Arrangements were made for uniting the Presbyterian and Reformed Churches in India under the name of "the Church of Christ in India, Presbyterian.

VI. Presbyterian and Reformed Union in China.—A conference representing the missions of the Presbyterian and Reformed Churches in China was held at Shanghai in April to discuss Presbyterian unity in China. Fifty-four representatives of the various missions attended it. The Rev. Dr. G. Farnham, of Shanghai, presided. As a result of its deliberations the appointment of a committee to prepare a plan of union, organic or federal, as may be found practicable, and submit the same to the Church courts (native and foreign) concerned.

ROMAN CATHOLIC CHURCH.

The pontificate of the Pontifical Commission on the Bible, by Pope Leo, is a noteworthy event. Catholic scholars all over the world will have the fullest opportunity to sift their views as to the value of recent criticism of the sacred text. Cardinal Parroceli is president of the commission, and consulters are to be appointed from different countries. Dr. Grannan, of the Catholic University, is the representative from the United States.

The Leonine Institute was founded at Athens by Pope Leo, some years ago, for education of the youth of Greece, and last year he founded a seminary in connection with it. On that occasion he wrote to the Greek bishops, recalling the departed glories of their classic land, and inviting the separated Christians to return to unity with Rome.

The pontifical jubilee was proclaimed on March 5, and the pontificate of Leo XIII lasted for 14 years. The Holy Year began on January 8, and the Holy Year of Our Lord and of the Incarnation. Of the many pilgrimages announced, that of the Lombards was the first, on Feb. 20, the first day of the Pope's twenty-fifth year on the throne. Cardinal O'Brien, the archbishop of Dublin, led it. About the same time the Belgians came with all their bishops. In receiving the Roman nobles the Pope said, "Your presence in large numbers proves false the rumor that you have forgotten the Holy See." This has been conferred by the Pope on the excellent Christian diplomatist Sr. Pidal, who has resigned his post as Spanish ambassador.

In most of all the movements of the jubilee, Pope Leo published his Easter encyclical to all the bishops, dealing with the crises through which the Church and society are passing. He also issued a very important motu proprio letter, forbidding the employment of law notaries in ecclesiastical affairs. These were unversed in canon law, and abuses were likely through their acquaintance with secret matters, particularly concerning matrimonial cases sent to Rome for consultation. There were complaints, also, that unjust fees were exacted, and even from the poor. The Pope forbade, moreover, the receiving of any fee whatsoever in cases regarding marriage, no matter who the persons are that make application. On May 29 the Observator Romano published Pope Leo's encyclical on the holy eucharist. The aged pontiff touchingly recalls that Our Lord gave the blessed sacrament as his sovereign gift on the eve of his passion; and so his vicar wishes that his last touch in the great church of the world should bear the same pledge of love divine. This encyclical completes, he says, his former ones on the Divine Redeemer and the Sacred Heart. The blessed eucharist is the chief source of Christian life, and especially of charity, the greatest need of our modern age. Pope Leo urges upon all the faithful the practice of frequent communion.

At the suggestion of the director of the Austrian Historical Institute, the representatives of the foreign historical institutes, in Rome, sought an audience of the Pope to congratulate his Holiness on his jubilee. The following institutes were represented at the audience, which took place on May 4: The Austrian, Belgian, French, German, Hungarian, Prussian, English, Danish, Swedish. Bishop Fraknoi, of the Hungarian Institute, delivered a Latin address, thanking the Holy Father for opening the archives and founding the Leonine Library, and pointing to the 140 volumes of pontifical law. The 60,000 volumes of historians in the Vatican, labors that owed their existence to the Pope's liberality and generosity. The Pope, answering in Latin, said he congratulated himself on having taken possession of the Vatican archives to historical scholars, since it had led to the creation in Rome by many noble nations of such learned institutes.

Cardinal Ledochowski died of a paralytic stroke on the morning of July 22. Cardinal Gotti, a Carminite, formerly prefect of the Congregation of Bishops and Regulars, who has succeeded him, was born in Genoa in 1834. For twenty years his life in his order was undistinguished. He took part in the Vatican Council, and soon afterward was made procurator of the Carmelites. Later he spent three years on an embassy sent to organize the Church in Brazil. After his return he was made cardinal.

The Romans celebrated the Pope's silver jubilee July 6. Seated on a throne outside the Library of the Vatican, and surrounded by the banners of the 15 rioni, or districts of the city, Pope Leo received them. There were persons of all classes, particularly the working-classes. Fifty thousand tickets had been distributed, but many thousands could find no room. So enthusiastic was the applause as Pope Leo greeted his faithful people of Rome, that if we should say it was a popular event.

The new reference library at the Vatican is the gift of Leo XIII. The Vatican archives and li-
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library consisted mostly of manuscripts. A reference library was much needed for the scholars to whom the Papacy had given his historic treasures. There are few reference libraries in Rome, the Government itself having done little since it took over the public libraries in 1870. The new reference library, excellently situated for use, is well appointed. There are complete sets of the fathers and councils, lexicons in various languages (exegetical lexicons, legal, liturgical, etc.). Cardinal Mastri’s library has been added to the collection of books, which is still growing under the care of the prefect, Father Ehrle.

In August Mgr. Guidi, who had filled many important posts successively, was appointed apostolic delegate to Manila. He was born in 1852 at Alatri, in the province of Rome. In 1870 he had finished his studies in the Collegio Romano. Having taken degrees in the Pontifical Seminary, he was sent by Pio Nono to the University of Innsbruck. Here, in 1877, he took the degrees of theology and law. A year in the Sorbonne, Paris, brought him a degree in Oriental languages. He was attached as secretary to the nunciature at Madrid from 1879 to 1883. Then he went as secretary to the embassy sent for the coronation of the Tsar, and in 1887 he was secretary of the nunciature at Lisbon. Later he was auditor, chargé d’affaires in Munich, secretary of extraordinary ecclesiastical affairs at the Vatican, on extraordinary diplomatic missions in Ecuador, and again at his former post in the Vatican.

The General Committee of the Work of Catholic Congresses sent in October to the cardinal-visits its lists for the place of president. Its first choice was Count Medaligo, the grandson of Joseph de Maistre, “the right hand of the Pope, and the inspirer of Tonio,” as La Vie Catholique styles him. The cardinal wished to retain Count Paganzu on account of his devoted services, but he resigned, desiring to see the newer men advance.

Mgr. Ehses, director of the Gorres Historical Institute of Rome, has disproved, by his investigation, the strange assertion that Pope Clement VII permitted Henry to marry Anne Boley. Clement declared “not in any letter, and not in any manner, that he had no power to break the lawful marriage of Henry VIII.” Paul Friedman, the English historian, gives the best general view of Henry’s relations with his father, and his papers and reports give an incomplete and unreliable account of the negotiations? They were guilty of suppression of facts and deception.

On Oct. 15 the General Chapter of the Carmelites elected Father Pius Meyer prior-general of the order. Father Meyer is a native of Riedlingen, in Württemberg. On Oct. 17 the Congregation of the Salvatorians (Societas Divini Salvatoris held in the Roman mother-house its first general chapter. Delegates were present from Europe, from Asia, and from the three houses in the United States. The founder of the congregation, Father Jordan, was elected general, this general life for the time. The German Catholic papers note with some pride that four religious orders or congregations have Germans at their head: Father Frühwirth is general of the Dominicans, Father Bernard von Andernatt general of the Capuchins, Father Meyer of the Carmelites, and Father Jordan of the Salvatorians. All of them signified the flourishing condition of the religious orders in this country, and of the growth of American influence in Rome, that Father Meyer lived for many years in the United States, where he held the offices of provincial and coadjutor-general.

The Irish pilgrims were received in audience by the Holy Father on Oct. 25. With the pilgrims were Cardinal Moran, Archbishop Riordan, and Bishop MacSharry. Pope Pius was greeted with enthusiastic applause as he entered the hall of audience. He recalled, he said, the frequent proofs of loyalty which, in the course of his pontificate, he had received from Catholic Ireland. Going round the hall, his Holiness allowed the pilgrims to kiss his hands, and he received the many addresses sent by corporations, Catholic associations, and the press. The benignity of the pontiff made a deep impression on his warm-hearted spiritual children. The band of 500 pilgrims was, to a great extent, composed of representatives of the Irish party in Parliament, of the municipalities of the principal cities, of the officials of 60 or 70 smaller cities and towns, of county councils, and of other administrative bodies, and of several newspapers. There were representatives also of the British Men’s Association of Dublin, which contains 18,000 men, of the 4,000 members of the Society of St. Vincent de Paul in the same city, and of the Association of National Teachers.

An international committee has been formed to present to the Pope of the Working Men” the “international hour of rest.” It is expected to present to Pope Leo three tables of bronze, to be placed in St. John Lateran’s, the mother-church of Christendom, and to form part of a monument symbolizing the end of the exhausting toil by Christianity. The names of the associations that contribute will be carved on the monument.

Cardinal Gaseyano-Aloyzio Masella, who occupied the very important post of protarary in the papal chancery, died Nov. 23, at the age of seventy-six.

Much notice has been given in the European journals to the visit of the Syrian Patriarch of Antioch. He was accompanied by several Syrian bishops, by many prominent persons of his patriarchate, and by representatives of the Eastern seminaries in Rome. Pope Leo, who has so long and earnestly endeavored to unite the Eastern and Western Churches, expressed great joy when the patriarch told of his journey to Rome to promote the great and difficult work of reunion. Two Eastern bishops have entered the fold of the Church, “with many priests and a multitude of the laity.” The patriarch presented the Holy Father very valuable offerings, manufactured in Damascus, Beirut, and Aleppo. Among them were a rich white silk tapestry, bordered with gold and Oriental pearls, and an album containing the names of the diocesan and ecclesiastical rulers of the patriarchate.

The United States.—The Catholic statistics for 1902 are: Cardinals, 1; archbishops, 13; bishops, 81; priests, 12,429; churches, 10,659; parishes, 22,462; seminaries, 81; students, 3,402; colleges for boys, 163; academies for girls, 629; parishes with schools, 3,857; Catholic population, 10,874,757.

The Right Rev. Thomas Lenihan, Bishop of Cheyennew, Wyo., died. He was born at Mallow, Ireland, in 1834, came to this country at an early age, and was consecrated bishop in 1897.

The Rev. Dr. Ganss, rector of St. Patrick’s Church, Carlisle, Pa., has resigned his parish to become the financial agent of the Catholic Indian schools, with his well-known ability and his acquaintance with the Government Indian School at Carlisle make this appointment one of peculiar fitness.

The Pope has made the Rev. Henry A. Barry, of Boston, a doctor of divinity; the Rev. William Pieper, of Columbia, Pa., one of his domestic prel-
Oct. 3 his silver jubilee as Archbishop of Baltimore. This is the third jubilee the cardinal has had since his arrival in that city. On June 30, 1886, he celebrated his silver jubilee as a priest by choosing it for the day of his investiture as cardinal, and on Aug. 16, 1886, he celebrated the silver jubilee of his consecration as bishop.

The Right Rev. William George McCluskey, Bishop of Louisville, Ky., celebrated on Oct. 6 the golden jubilee of his priesthood. The bishop is a native of Brooklyn, N. Y., where he was born Nov. 10, 1823.

His Excellency the Most Rev. Diomede Falconio, O. F. M., papal delegate to Canada since Oct. 12, 1899, assumed his duties at Washington as successor to Cardinal Martinelli on Nov. 20. Mgr. Falconio was born at Prescoostanesta, in Abruzzo, Italy, in 1848, and entered the Order of St. Francis at the age of eighteen. He was sent to the United States in 1866, and in the following year was ordained priest.

The Right Rev. James Edward Quigley, Bishop of Buffalo, has been appointed Archbishop of Chicago, to succeed the late Archbishop Feehan.

Canada.—The Canadian Catholic population is 2,529,957, or nearly half that of the Methodists number 916,862; the Presbyterians, 842,301; the Anglicans, 680,346; the Baptists, 292,- 485.

Two events of importance have marked the University of Ottawa, the appointment of the Rev. J. L. Emery, O. M. I., for several years stationed at Buffalo, N. Y., as rector, and the opening of the new Science Hall, thoroughly equipped with all modern improvements and the latest scientific apparatus.

Mgr. Donato Saretti, auditor of the American delegation under Cardinal Sarto, and afterward Bishop of Havana, Cuba, has been appointed to succeed Archbishop Falconio as delegate apostolic of Canada. Archbishop Saretti was born in Montefranco, in the archdiocese of Spoleto, in 1850.

Very soon after his consecration Bishop Brey not set out to visit his new vicariate of Mackenzie and Yukon, which extends from the Pacific Ocean to the Arctic Ocean. The visitation will thus extend beyond the arctic circle. The Catholic advance is rapid. Dawson City has a parish church, with eight chapel Debs in connection with its duties as apostolic delegate to the island. Just before leaving, the archbishop received instructions from Cardinal Rampolla to see that the process for his elevation to the condition of the Church in Cuba.

In September the Right Rev. John M. Farley, Auxiliary Bishop of New York, was appointed archbishop in succession to the late Archbishop Corrigan. Archbishop Farley has held various places of trust in the diocese. He was private secretary of Cardinal McCloskey for several years, was appointed vicar-general of the diocese by Archbishop Corrigan, and on Dec. 21, 1895, was consecrated Bishop Auxiliary of New York.

The Right Rev. George Montgomery, Bishop of Los Angeles, Cal., has been appointed coadjutor, with the right of succession, to Archbishop Rior dan of San Francisco.

The Rev. James J. Keane, pastor of the Church of the Immaculate Conception, Minneapolis, Minn., was named Bishop of Cheyenne, Wyo., successor to the late bishop Thomas M. Lenihan; and the Very Rev. J. N. Stariba, vicar-general of the arch diocese, to the newly erected see of Lead City, which is part of the diocese of Sioux Falls, S. Dak.

His Eminence Cardinal Gibbons celebrated on
The number of religious in England now is far greater than at any time before the Reformation. Of these, the Benedictine monks, who had 25 priories in 1501, have at present 8 principal establishments, with 59 dependent “cells,” as they are called. In the monasteries, the Dominicans 9, the Jesuits 31, the Sisters of Charity of St. Vincent de Paul 49, and the Sisters of Mercy 54.

Ireland.—In four years the Society of St. Vincent de Paul has been greatly extended and its good works increased. In one year its receipts for charitable objects were £18,305 ($91,525). In the same years more than 63,000 families (more than 230,000 persons) were relieved by its charity.

The scholarly Archbishop of Tuam, Dr. McEwan, died on Nov. 28, at the age of eighty-nine. He was transferred from the see of Galway to become coadjutor to Archbishop McHale, whom he succeeded in 1861. He is known particularly by his commentaries on the Sacred Scriptures.

On June 2 the centenary of the founding of the Christian Brothers was celebrated in Dublin. In the morning there was a solemn high mass in the Pro-Cathedral, his Grace Archbishop Walsh presiding. The panegyric of the order was delivered by the Rev. Dr. Butler, O. C. C.

The Most Rev. Thomas W. Croke, Archbishop of Cashel and Emly, died on July 22, at the age of seventy-nine. He was born in Cork, was created Bishop of Auckland, New Zealand, in 1870, and was transferred five years later to the see to which he had been transferred with such distinction ever since.

Archbishop Plunkett has been declared venerable, and the process of his beatification is being hastened by special dispensations, so that the final congregation appointed to investigate the cause may be held before the end of another year.

The silver casket containing the beautifully illuminated address which the members of the Irish parliamentary party presented to Pope Leo XII takes the form of a reproduction of the Shrine of Lough Erne, with the beautiful and varied interlacings that are only to be found in pure Celtic ornamentation. The casket is surrounded by the legend of the order in the motto, Lumen in Coelo, “Light from Heaven.” The casket is supported by four ibis, which harmonize beautifully with the whole design and decor.

Italy.—Murano, in northern Italy, has given the first example in the peninsula of erecting homes for working men. “For each laborer a home and a garden” was the motto of the parish priest, Don Cerutti.

The war on Christian education is less demonstrative than in France, but it is declared nevertheless.

The instructions issued with the approval of the Holy See are bringing the more enthusiastic Catholic youth of Italy into greater harmony with the older and more experienced organization of the work of congresses. Adhesions to the will of the pontiff have been received from all parts of Italy, and Count Toniolo has publicly announced the accord established between the Catholic organizations engaged in social work.

The League of Public Morality began its congress on Sept. 9, in Turin. There was a large attendance and a very high moral character. Among those present were M. Gouffre, president of a similar league in Talp. Count Della Motta, and Canon Gastaldi.

The population of Italy, according to the census lately taken, is nearly 33,000,000. Crime is, unfortunately, increasing with the population; or, rather, much more quickly. Suicides, which in 1872 were 30 in 1,000,000 people, are now more than twice that number. The Socialists, confident in their growth and strength, are preparing an antiliberal bill as a first step toward abolishing the standing army.

The first Italian Congress was announced at the end of February. Its object was to consider the relation of Catholics to modern Italian literature and to take steps to found a review. There are in this movement very prominent Catholic literary men.

Belgium.—At the annual reunion of Belgian Catholic journalists, the president, M. Verspey, read an encouraging congratulatory letter from the Pope, and announced his Holiness’s gift of 1,000 francs toward the founding of a review for aged journalists. Pope Leo said: “We have already approved and praised your association, formed to defend the truth more efficiently.”

The fourteenth International Congress of the Blessed Eucharist was held at Namur. The cardinal legate presided, and the papal nuncio was present with the Governor of Namur and M. de Woeste, the great Catholic leader.

The Belgian schools have increased by one-third since 1884, and the pupils by more than half. The Catholic religious orders flourish more than elsewhere, and those expelled by France are welcomed. The missionary enterprises of this most remarkable little country are peculiarly vigorous, well-supported, and successful. Each year the Parliament declares as a part of its political faith the necessity of the temporal independence of the Holy See.

China.—The Emperor has conferred upon Bishop Anger, of South Shantung, the button of the first rank in acknowledgment of services rendered to maintain good relations between the Christians and the heathen. China has not yet washed away her blood-stains. Two Belgian missionaries, Fathers Van Merbenhegen and Bongaerts, both of the Congregation of the Immaculate Heart of Mary, have been received with a large number of Christians, in Mongolia.

From the official report of the Roman Congregatio de Propaganda Fide, a fair idea may be obtained of the really great missionary activity in China. There are 46 vicariates apostolic, which number 904 European missionaries and 417 native priests, 1,226 priests in all. Almost all the principal European nations are represented among the vicarates. A Catholic Church in thelegation quarter in Pekin is being erected for the benefit of the large Catholic population, mostly official and military, resident there since the late crisis.

Germany.—The opening of the Holy Father’s jubilee year was marked in Germany on Feb. 20 by eloquent leading articles in all the Catholic papers, giving expression to the undying love and gratitude and unalterable fidelity of the German Catholics to the great pontiff.

On April 28 the delegates of 29 of the most important Catholic associations in Germany, who had journeyed to Rome to pay their homage to the Holy Father, were received by his Holiness in solemn audience. Prince Karl von Loewenstein, the organizer and heart of the pilgrimage, read a beautiful Latin address.

Within five years the Catholics of Cologne have lost their four bishops. In 1867 died in Rome the banished Cardinal Melchers; in 1889 his successor, Cardinal Kremetz, and the eloquent and much
admired coadjutor, Bishop Schmitz; and on May 23, of this year, Archbishop Hubert Simar, after a rule of a little more than two years.

The Catholic Day (Katholiktage) was held Aug. 24-28, in Mannheim, the largest city in Baden and its commercial metropolis.

The Imperial Census Bureau has published the official results of the census arranged, according to religious denominations. The last population of the empire counted 56,367,178. There were 35,231,104 Protestants and 20,921,441 Catholics.

The archbishops and bishops assembled in annual conference at the tomb of St. Boniface in Fulda have issued a joint pastoral letter to the Catholic people, the burden of which is the life, labors, and aims of Pope Leo XIII.

Spain.—Pope Leo's strongly worded pastoral, forwarded to the Spanish ministry, in condemnation of their antireligious project had some influence with them. His Holiness demands freedom for Spanish religious orders as for all other law-abiding men in this intensely Catholic country. The papal nuncio in Spain has announced what is clearly the result of an understanding between the Government and the Holy See, that the only thing required for the authorization of the religious orders, after canonical approval, is civil registration of the officials of the order within the limits of the state. According to the statistics published by the Minister of the Interior, there are in Spain 5,118 religious communities, with 60,933 members; 40,188 are men. The corresponding number have complied with the Government's conditions for authorization. Some communities have presented reasons for which they consider that they are exempted from the provisions of the law.

The members of the Apostolate of the Press assisted at the mass of communion in the Church of the Sacred Heart and St. Francis Borgesia in Madrid, and assembled in the evening to give account of their labors. They have printed 379,000 copies of different works—95,000 of clericalism and 18,000 of defense of religion and its ministers—and 81,780 publications were distributed gratis among the poorer people. In their address to the King, which sums up the resolutions of the Congress, the bishops demand liberty for the religious orders, the best men and minds of Spain recognizing society's debt to them.

The bones of Columbus have been transferred from the Cathedral of Havana. On Nov. 17, the Delegation of Terreiro carried the remains of his great ancestor. He proceeded to the cathedral, accompanied by the highest civil and military officials, where the reinterment took place.

France.—The Town Council of Aries voted the removal of all religious emblems from public places. In the night all the crucifixes were broken to pieces, and particularly one immense figure much venerated by the people.

The Figaro estimates that 180,000 children are deprived of all opportunities of attending school in consequence of the recent closing of religious schools.

The Subsecretary of State, M. Mouget, ordered that from May 1 the post-offices and telegraph and telephone offices be opened in the forenoon of Sundays, and not in the afternoon, as hitherto. This is contrary to the expressed wish of the majority of the employees, who, being questioned, preferred to be free at an hour in which they could attend divine service.

Seventy-four of the 79 resident bishops of France signed a joint petition to the Parliament for the authorization of religious schools and institutions which have asked for it. The Council of State condemned the bishops for this exercise of the ordinary right of citizens. The Bishop of Orleans answered by proofs that no law of France was violated by the bishops' act. Announcing his program, the Premier, M. Combes—who is not an ex-priest, although he is an ex-eclesiastic—boldly declared: "We shall reject all authorization to compete with State education. The false law, allowing liberty of teaching, will have to go in the name of liberty."

With regard to the Passionist Fathers at Paris, their central position for English-speaking Roman Catholics (especially Americans and Irish), thus attacked, will entail enormous inconvenience on thousands who look to them for ministration, counsel, and help. The hard-working staff of four or six has always its hands full of work for relief among the poor Irish, and for direction among rich Americans.

The Oratorians, who applied for authorization, find themselves with the majority on the list of the proscribed. But their case is not at all the same as that of orders like the Franciscans, Dominicans, etc., from the point of view of legal status. This aspect of the matter the fathers have not been slow in placing as clearly as possible before the Deputies in a letter in which they explain what they wish to do with the Ministry of Worship at the time—that they only applied for authorization in case their status as a simple association of secular priests should be contested. Though styled a Congregation of the Holy Office, they are not a congregation in the true sense of the word.

The Council of State having condemned the bishops who signed the petition to the Senators and Deputies in behalf of the religious congregations as being guilty of an abuse of their position, the state stipsends of three of the bishops whom the Government regards as having had a principal part in organizing the petition have been stopped. The three prelates are Mgr. Petit, Archbishop of Besançon; Mgr. Touchet, Bishop of Orleans; and Mgr. Bardel, Bishop of Soes.

At Tours private houses have been entered by officials; at Marseilles an attempt has been made to seize ecclesiastical property; and at Rheims there has been interference in an ecclesiastical college. Even missionaries not religious at all, not having vows or possessing property in common, as, for instance, the missionaries of Our Lady of Laus, are being proceeded against. The next await suppression are preparing for exile, for none of their members may join the secular clergy or exercise any religious function without the express permission of the Minister of Worship—Combes himself.

The five congregations to be authorized with restrictions are the Brothers of St. John of God (who have 10 establishments), the Cistercians of the Immaculate Conception, the Trappists, the Algerian missionaries, or "White Fathers," and the African missionaries of Lyons—in all 45 religious houses for 40,000 Catholics in Algeria.

Australia.—Cardinal Moran, who, owing to his great age, has lately resigned from his archiepiscopal see of Melbourne, said that he "did not know if in the history of the Church one could find such an expansion in schools as that which the country (Australia) presented."

Austria.—The question of the religious orders has come up in both houses of Parliament. In the upper house, Canon Zechkoke victoriously pleaded their cause, freely adding irreparable wrong and irresistible religious agencies, among other things, that 30,000 sick persons are cared for by
the hospital sisters alone, and that Catholic education, especially at the theological faculty at Innsbruck, is internationally famous.

A brilliant young Alsatian priest, Dr. Albert Ehrhard, Professor of Church History at the University of Freiburg, published a work on the Catholic Church and the Twentieth Century, which has made a great sensation in Austria and Germany and in a few months has reached its eighth edition.

There is a growing union between the Christian Socialists and the Catholic Conservatives. It exists already in lower Austria, Salzkammergut, Stara, and in the Tyrol.

Scotland.—The Bishop of Galloway says, in his Lenten pastoral, "the law of nature and of grace has impelled Catholic parents to provide for the education of their children, and this has been most unfairly hampered in a Christian land."

Archbishop Eyre, of Glasgow, died. He was consecrated in the See of Raphoe in 1886, and made archbishop by Pope Leo on the reestablishment of the Scottish hierarchy in 1878.

Portugal.—According to a Portuguese correspondent, "in the村党支部 (March 15), the regulations of the Government concerning the religious orders will be, if not modified, even more disastrous than those of France. The secularization of the religious, if insisted upon, according to what seem to be the ideas of its authors, will forbid the taking of vows, the receiving of novices, and the observances of the rules of religious enclosure or seclusion."

Colombia.—Nowhere has greater honor been done to the papal jubilee than in Colombia, South America. A decree of the Government, issued in the midst of celebration, proclaims the celebration of the jubilee. It recalls the last official acknowledgment of the actual sovereignty of Christ in 1888, and expresses the people's determination "to repay by demonstrations of reverence and gratitude the favors shown them by the great religious donjon.""

Hungary.—The last census of Hungary gives the whole population as 19,254,559; Catholics, 11,774,466 (Latin Catholics, 9,516,012; Uniate Greek Catholics, 2,258,454); Protestants, 5,480,093; of the whole population, an increase of 10.3 per cent. in the ten years from 1890-1900.

Holland.—According to the recent census, 35.4 per cent. of the population of Holland is Catholic. The Protestants number about 3,000,000, and the Catholics 1,700,000. There are about 100,000 Jews. Of the 38 deputies of the Second Chamber, 23 are of the Catholic faith.

Brazil.—"Urged by the supplications of the authorities, both civil and ecclesiastical, and at the earnest request of the people," the Pope has erected two new episcopal sees in Brazil—Alagoas and Porto Alegre. He has also appointed bishops to the vacant sees of Spirito Santo and Belem de Para, and a consistorial, with the right of succession, to the Bishop of Florianopolis.


The Philippines.—One clause in the bill introduced by the chairman of the Senate Committee on Philippine Affairs is of special interest. It provides that the present Philippine Commission to purchase the lands now held by the religious orders, and to dispose of them on proper terms to the native tenantry.

The new trade recognized the right of Germany and Italy to protect their Catholic subjects in the Turkish Empire.

ROUMANIA. a kingdom in eastern Europe. The legislative power resides in the Chamber of Deputies and the Senate. The Senate has 121 members, including the Crown Prince, 8 bishops, 2 members for universities, and 110 members elected for eight years. The Chamber of Deputies has 183 members, who are elected for four years. Owners of property worth 1,250 lei or more a year form the first-class of voters, those who pay 20 lei in direct taxes or have an elementary education form the second, and all others who pay taxes belong to the third, in which priests, schoolmasters, and possessors of property worth 300 lei a year who can read and write vote directly and the others choose delegates, 1 to 50 voters. These three classes elect the members of the Chamber. Senators are elected by the first two classes of proprietors, the first having an income of 2,000 lei or upward from their property, the second having an income from 800 lei up to 2,000 lei. The reigning King is Carol I, born April 20, 1830, son of Prince Karl of Hohenzollern-Sigmaringen, elected Domn of Roumania on April 20, 1866, by the Constituent Assembly and proclaimed King on March 26, 1881. The heir presumptive is Prince Ferdinand of Hohenzollern-Sigmaringen, the King's nephew, born Aug. 24, 1865.

The ministry constitutes on Feb. 27, 1901, was composed as follows: Prince Carol, Minister of Foreign Affairs, and Minister of War ad interim, Demeter Sturdza; Minister of the Interior, Peter S. Aurelian; Minister of Justice, C. J. Stoicescu; Minister of Finance, O. C. Micu; Minister of Public Instruction and Worship, Spirio D. Hare; Minister of Public Works, J. J. C. Bratiano; Minister of Agriculture, Industry, Commerce, and Domains, B. M. Missir.

Area and Population. Roumania has an area of 50,720 square miles. The population in 1899 was 5,912,520, an average of 116 to the square mile. Of the total 92.5 per cent. were Roumanians, 2.9 per cent. were foreign citizens, and 4.6 per cent. 372,421 in number, were Jews and Mohammedans of Roumanian birth who are denied the status of citizenship and regarded as foreigners. Outside of the Transylvania, Servia, Bulgaria, and Turkey, are between 9,000 and 10,000,000 persons of Roumanian race. The number of marriages in 1900 was 40,607; of births, 334,845; of deaths, 149,144; excess of births, 88,999.

Finances. — The revenue for the financial year ending March 31, 1901, was 209,512,533 lei, and the expenditure 227,286,775 lei. For 1902 the estimated revenue was 227,203,000 lei, and the estimated expenditure the same. For the financial year ending March 31, 1901, the budget estimate of revenue is 215,500,000 lei, of which direct taxes produce 43,815,000 lei, indirect taxes 56,510,000 lei, monopolies 90,900,000 lei, the Ministry of Agriculture 23,345,000 lei, the Ministry of Public Works 22,520,000 lei, the Ministry of the Interior 15,534,000 lei, the Ministry of Finance 3,356,000 lei, the Ministry of War 983,000 lei, the Ministry of Foreign Affairs 202,000 lei, the Ministry of Instruction and Worship 794,000 lei, the Ministry of Justice 231,000 lei, and various sources 5,510,000 lei. The expenditure for 1903 is estimated at 215,500,000 lei, balancing the budget, and of this total the public works received 56,441,000 lei, the Ministry of War 37,720,000 lei, the Ministry of Finance 34,823,000 lei, the Ministry of Instruction and Worship 24,924,000 lei, the Ministry of the Interior 15,250,000 lei, the Ministry of Public Works 5,790,000 lei, the Ministry of Justice 5,230,000 lei, the Ministry of Agriculture 4,193,000 lei,
ROUMANIA.

the Ministry of Foreign Affairs 1,839,000 lei, and the Council of Ministers 56,400 lei, leaving for supplementary and credits 2,324,508 lei.

The public debt on April 1, 1901, amounted to 1,432,015,515 lei. The annual charge for 1902 was 86,040,239 lei.

Army and Navy.—The army consists of 8 battalions of rifles, 34 regiments of infantry, 6 regiments of hussars, 11 regiments of cavalry, 12 regiments of field-artillery, 2 regiments of siege-artillery, 2 regiments of engineers, 5 companies of artificers, 4 squadrons of train, and 4 companies of hospital troops. The troops are organized in 4 army corps of 2 divisions each, the division consisting of 2 brigades of infantry, with 1 brigade of cavalry attached to each corps, and a separate division in the Dobrudja and cavalry brigades at Taceciu and Galatz. The peace strength in 1900 was 3,474 officers and 116,178 non-commissioned officers and men, with 21,318 horses and 384 guns. The infantry weapon is the Mannlicher rifle of the model of 1893. The territorial army numbers 72,161 men, with 7,500 horses.

The naval force consists of the protected cruiser Elisabetta, of 1,320 tons, a training-ship, 7 gunboats, 6 coast-guards, a dispatch-boat, and 6 first-class and 2 second-class torpedo-boats.

Commerce and Production.—The yield of wheat in 1901 from 1,638,587 hectares was 25,508,840 hectoliters; of rye from 211,424 hectares, 3,274,471 hectoliters; of barley from 503,699 hectares, 8,353,925 hectoliters; of oats from 265,124 hectares, 5,828,550 hectoliters; of corn in 1900 from 2,035,288 hectares, 25,970,400 hectoliters; of wine from 145,432 hectares, 3,157,990 hectoliters; of prunes from 72,411 hectares, 3,567,380 hectoliters; of tobacco from 4,550 hectares, 4,096 quintals; of colza in 1901 from 135,000 hectares, 1,518,000 hectoliters; of linseed from 20,629 hectares, 195,205 hectoliters; of hemp in 1900 from 6,077 hectares, 20,350 quintals of flax and 43,386 hectoliters of seed; of hay from 630,217 hectares, 11,610,841 quintals. There were 896,748 horses, 2,590,040 cattle, 5,044,210 sheep, and 1,709,900 hogs in 1900. The state salt-mines produced 104,065 tons in 1900. Coal and petroleum are among the mineral products, and metallic ores are mined in the Carpathians.

The total value of imports in 1900 was 216,965,578 lei, and of exports 250,000,431 lei. The principal ports of entry were Bucharest, 172,726,869 lei; imports of textiles 73,963,403 lei, and exports 2,881,325 lei; imports of metals and metal manufactures 55,162,029 lei, and exports 5,335,281 lei; imports of hides and leather 5,305,620 lei, and exports 592,655 lei; imports of oil and wax 5,605,646 lei, and exports 6,526,320 lei; imports of colonial products 14,232,203 lei, and exports 86,717 lei; imports of fruits 5,186,659 lei, and exports 47,025,215 lei; imports of animal products 4,833,001 lei, and exports 7,202,900 lei; imports of live animals 949,790 lei, and exports 9,548,048 lei; imports of colors and dyes 2,906,450 lei, and exports 193,451 lei; imports of timber 2,158,038 lei, and exports 12,321,589 lei; imports of paper 4,582,509 lei, and exports 247,973 lei; imports of drugs 4,093,790 lei, and exports 17,533 lei.

The construction of the railroad at Costanza has been of benefit to the export trade. The values in lei, or francs, of the imports from and exports to different countries in 1900 are given in the table below.

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Exports</th>
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<tbody>
<tr>
<td>Belgium</td>
<td>6,974,450</td>
<td>140,545,928</td>
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<tr>
<td>Austria-Hungary</td>
<td>62,065,818</td>
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<td>Germany</td>
<td>53,964,507</td>
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<td>Great Britain</td>
<td>1,359,177</td>
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<tr>
<td>Italy</td>
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<tr>
<td>United States</td>
<td>909,506</td>
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015, of 7,984,900 tons. The commercial navy in 1900 comprised 392 sailing vessels, of 74,904 tons, and 71 steamers, of 15,118 tons. The Government maintains in connection with the railroads a steamboat service on the Danube and the Black Sea.

Railroads, Posts, and Telegraphs.—There were 2,000 miles of state railroads in 1901, and 930 miles were building or authorized. The receipts in 1899 were 46,197,275 lei, and expenses 37,500,000 lei; capital expenditure, 717,627,050 lei. The post-office in 1900 carried 19,604,467 letters, 12,005,591 postal cards, and 27,897,817 newspapers and parcels.

The telegraphs in 1900 had a length of 4,834 miles, with 11,240 miles of wire. There were 52 telephone circuits in 1900, with 4,000 miles of line and 5,800 miles of wire; the number of conversations in the year was 1,940,824.

Internal Affairs.—The financial difficulties of the Roumanian Government reflect the economic position of the country, which has grown steadily worse in consequence of the competition of American corn and wheat. Deficits in the budget have in a few years piled up a floating debt of 175,000,000 lei. On Jan. 22, 1902, Minister Pallass laid down the portfolio of finance, which Premier Studza assumed ad interim, transferring the charge of foreign affairs temporarily to Minister Bratiano in addition to his duties at the head of the Public Works Department. Subsequently this latter portfolio was given ad interim to Minister of Justice Stoicescu. The Legislature, which met on Jan. 23, passed a bill for organization of industrial societies and the protection of Roumanian workmen against the competition of foreigners. A project of the Minister of the Interior to forbid foreign mortgages to foreigners in rural communities was given up in deference to public opposition. A higher protective duty was imposed on foreign sugar. A bill was passed making criminal judges irremovable during good behavior. The financial deficit for 1901 was provided for without the sale of domains that had been proposed. By curtailing of expenditure a balance was reached in the budget of 1902, and for the next year a considerable surplus was predicted. On March 11 the parliamentary session was closed. In the summer the King visited Bulgaria to indicate that friction between the two countries was at an end. On July 28, the Cabinet was reconstituted as follows: President of the Council and Minister of War, Demeter Studza; Minister of Agriculture, Commerce, Industry, and Domains, Peter S. Aurelian; Minister of Justice, E. Stacescu; Minister of the Interior, J. D. Palladas; Minister of Public Works, C. J. Stoicescu; Minister of Public Worship and Instruction, Spiro D. Haret; Minister of Foreign Affairs, J. J. C. Bratiano; Minister of Finance, M. Costinescu. At the reassembling of the Chambers on Nov. 27, Minister Aurelian resigned on the ground of ill health, and the Prime Minister took charge of the department ad interim.
The Jewish Question.—An article in the treaty of Berlin signed on July 13, 1878, runs as follows: "In Roumania the difference of religious creeds and confessions shall not be alleged against any person as a ground for exclusion or incapacity in matters relating to the enjoyment of civil and political rights, admission to public employments, functions, and honors, or the exercise of the various professions and industries in any locality whatsoever." The recognition of Roumanian independence by the powers was declared to be conditional on the acceptance of these terms. The article was inserted in the treaty at the suggestion of France, supported by Great Britain. Its purpose was to ameliorate the civil status of Roumanian Jews, who were in law, and till recently have remained, aliens not under the protection of any Government. In the year following the signature of the treaty the British and some other foreign representatives at Bucharest endeavored to influence the Roumanian Government to remove Jewish disabilities, without success except that the article in the Roumanian Constitution forbidding the naturalization of Jews was amended. Naturalization can, however, be granted only by the Parliament, and citizenship is not transmitted to the children of a naturalized Jew. Out of a Jewish population of about 400,000 not more than 80 have been able to obtain naturalization, and in each case it has been withheld from nearly every applicant. The legal disadvantages under which the Jews suffered have been aggravated by a series of alien laws, of which the most striking is the despotic regulation in the retail trade was restricted; in 1889 from prominent positions on railroads. In 1886 Jewish children were excluded from free elementary education, and in 1887 from the secondary schools. Jews in the retail trade were restricted; in 1889 from prominent positions on railroads. The laws of the United States, which the Jews have sought refuge have no room for more Roumanian Jewish immigrants, even the United States, which has been the haven for the immense majority of them in the past. No previous Roumanian ministry has been so hostile toward the Jews in its policy and legislation as that of Demeter Sturza.

After the trade law was passed a fresh exodus to the United States began. A great many Roumanian immigrants on arriving at New York were refused admittance because they were destitute or suffering from disease. New York and London again suffered the inconvenience of the pauper influx, and Hebrew benevolent organizations in America and in Europe were burdened with a task that was too great for them to help. Great Britain has on several occasions intimated to Roumania that the article of the treaty was not carried out in the spirit, if it were only in the letter. The British Government has made representations regarding the hordes of destitute wanderers that have from time to time swarmed through Hungary and the Austrian lands.

In September Secretary Hay addressed a circular note to the powers that signed the Berlin treaty containing an earnest appeal to them to represent to the Roumanian Government the evils resulting from its neglect to carry out the stipulations of the treaty, to which the United States may not authoritatively appeal as it was not and can not become a signatory. The purpose of the generous treatment afforded to the alien immigrant by the United States is to benefit the country and the immigrant alike; but not to afford another state a field upon which to cast its own objectionable elements. The great number of undesirable emigrants from Roumania coming to its shores furnished ground to the United States for requesting the End into the congested districts of London and helped to depress the wages of English workmen and exhaust the Jewish charity funds. Vienna has been repeated-
RUSSIA.

other signatory powers asking them to state their views to the American minister. The Roumanian ministers brought to public notice the fact that the law forbidding any alien to exercise a trade or handicraft in Roumania, which哐at Roumanians and their country does not apply to Jews, who now belong to the category of aliens under the protection of the Roumanian Government. The provision of the law that excludes Jews from all trade unions and associations is, however, quite effective in depriving them of employment. The Roumanian Government, after the publication of the American note, refused to issue a permit to emigrants intending to emigrate to the United States, and even turned back those who already had their passports and railroad and steamer tickets. After an interval of several weeks the emigration to America recommenced, and the emigrants were of the artisan class.

International Commission of the Danube.—The navigation of the Danube as far as the delta, Gates, except in the northern outlet, is regulated by agreement between Germany, England, Austria, France, Italy, and Russia by international rules worked out at the conference of Berlin in 1878 and the London conference of 1885. The International Commission, sitting at Galatz, which enforces the regulations and collects tolls to pay its expenses and the cost of improved conservation, is composed of a delegate of each of the riparian states, viz., Austria, Bulgaria, Roumania, and Servia, and one appointed for six months by each of the great powers in turn. The agreement is terminable in 1904. During 1900 the number of vessels cleared at the Sulina mouth was 1,101, of 1,253,300 tons, of which 250, of 458,921 tons, all steamers, were British; 187, of 256,126 tons, consisting of 134 steamers and 43 sailing vessels, were Greek; 81, of 131,503 tons, all steamers, were Austrian; 85, of 129,426 tons, all steamers except 1 vessel, were Italian; 191, of 59,416 tons, 178 of them steamers and 15 sailing craft, were Russian; 178, of 51,822 tons, of which 30 were steamers and 148 sailing vessels, were Turkish; 33, of 43,156 tons, of which 28 were steamers and 4 sailing vessels, were Hungarian; 34, of 31,712 tons, all steamers, were French; 16, of 22,429 tons, all steamers, were German; and 35, of 37,904 tons, 20 of them steamers and 15 sailing vessels, belonging to the other nations, were Romanians. The receipts of the International Commission for 1900 were 2,148,299 francs, of which 1,867,220 francs were dues collected, 141,025 francs various receipts, 181,201 francs a balance from the preceding year, and 239,253 francs the value of material and bills receivable. The expenses were 811,368 francs for administration, 316,924 francs for technical service, 119,489 francs for various expenses, 290,747 francs for special expenditure, and 221,321 francs for purchase of material and accounts payable. The debts of the commission were paid up in 1887, and there were 2,218,676 francs on Jan. 1, 1901, of reserve and pension funds.

RUSSIA, an empire in northern Europe and Asia. The throne is hereditary in the dynasty of Romanoff-Holstein-Gottorp. The legislative, judicial, and executive powers are vested in the Emperor, called the Czar, who is assisted by a Cabinet of ministers, each of whom has charge of an executive department, a Council of State, which passes upon projects of legislation submitted by the ministers; by a Ruling Senate, which watches over the judicial administration; and by a Holy Synod, which directs ecclesiastical affairs.

The reigning Czar is Nicholas II., born May 18, 1868, who succeeded his father, Alexander III., on Nov. 1, 1894. He is the fourth son of Grand Duke Michael, brother of the Czar, born Dec. 4, 1878. The members of the Committee of Ministers at the beginning of 1902 were as follows: Minister of the Imperial House and Imperial Dominions, Gen. Baron W. B. Freedericks; Minister of Foreign Affairs, Count W. N. Lamadour; Minister of War, Gen. A. N. Kuropatkin; Minister of the Navy, Vice-Admiral F. P. Tyrtoff; Minister of the Interior, Dimitri Sergeivich Sliapin; Minister of Public Instruction, Gen. Peter S. Vannovksy; Minister of Finance, S. J. Witte; Minister of Justice, N. N. Mikhaylov; Minister of Agriculture and State Dominals, A. S. Yermoloff; Minister of Ways and Communications, Prince M. J. Khiliksfoff; Comptroller-General, Inept.-Gen. Lobko; State Secretary for Finland, W. Procheslo; Procurator-General of the Holy Synod, K. F. Pobjedonostseff; President of the Committee of Ministers, J. N. Durnovo. The Grand-Dukes Vladimir and Alexeoff held the rank of Extraordinary, and Michael Nikolaievich, uncles of the Czar, are members of the Committee of Ministers, as are also D. M. Solsky, President of the Department of State Economy; and H. F. de Frisch, President of the Department of Legislation; and N. M. Tichkhatcheff, President of the Department of Industry, Science, and Commerce; M. Selifontoff, President of the Department of Civil and Ecclesiastical Affairs in the Council of State, and Count Protasoff-Bakhmetoff.

Area and Population.—The land area of the Russian Empire is 8,447,234 square miles, and there are 283,018 miles of internal waters. The total population in 1897 was 129,004,414. In European Russia there are 102,8 women to 100 men; in Poland, 96.9; in Finland, 102.2; in the Caucasus, 98.5; in Siberia, 98.7; in the Steppe, 99.4; in Transcaucasia and Turkestan, 83; average for the empire, 99.8. The Jews number 2,943,364 in the western and south-western provinces of Russia, or 1.1 per cent. of the population; in the five governments of Poland they number 431,900, or 11 per cent. of the population. In Odessa, Kerch, and Sebastopol there are 7,339 Jews, 35.1 per cent. of the population. In the five European governments of Poland, they number over 4,00,000 Jews. The number of births in the Russian Empire, exclusive of Finland, during 1898 was 7,969,218; of deaths, 3,845,908; excess of births, 4,123,310. The Czar's capital, had 1,439,375 inhabitants in 1900; Moscow, 1,035,664; Riga, 282,943.

Finance.—The ordinary revenue for 1900 was 1,70,128,500 rubles, and expenditure 1,555,427,622 rubles, leaving a surplus of 148,700,884 rubles. The extraordinary receipts were 32,568,983 rubles, and the extraordinary disbursements 333,788,515 rubles. The estimate of revenue for 1901 was 1,730,096,006 rubles from ordinary and 1,500,000 rubles from extraordinary sources, and the expenditures were estimated at 1,656,852,556 rubles for ordinary and 1,850,460 rubles for extraordinary purposes, making a total of 1,785,852,006 rubles, necessitating the raising of 50,868,000 to meet extraordinary expenditure. The extraordinary outlay 42,329,450 rubles were for building new railroads, 82,000,000 rubles for the payment of consolidated railroad bonds, and 7,500,000 rubles for various purposes. For 1902 the ordinary revenue estimate was 1,70,764,495 rubles, and the extraordinary revenue at 1,800,000 rubles, while the ordinary expenditures were estimated at 1,775,913,481 rubles and the extraordinary expenditures at 170,658,496 rubles, making a total expenditure of 1,946,571,916 rubles, exceeding by 143,974,494 the estimated revenue from all sources.
of the ordinary receipts 130,483,526 rubles were derived from direct taxes, viz., 47,026,663 rubles from taxes on land and forests, 47,355,138 rubles in 1901, 66,103,000 rubles from trade licenses, against 62,701,000 rubles, and 17,383,963 rubles from a 5-per-cent. tax on income from capital, against 17,516,400 rubles; 387,157,000 rubles were derived from indirect taxes, viz., 34,592,500 rubles from spirits, against 318,757,000 rubles in 1901, 42,854,000 rubles from tobacco, against 41,410,000 rubles; 69,288,000 rubles from sugar, against 62,386,000 rubles, 34,470,100 rubles from stamps and dues, viz., 41,093,800 rubles from stamp-duities, against 38,871,537 rubles in 1901, 22,906,000 rubles from transfer dues, against 23,900,000 rubles, and 26,145,187 rubles from passports, railroad taxes, etc., the same as in 1901; 521,724,000 rubles were derived from Government monopolies and enterprises, viz., 1,845,000 rubles from mines, against 4,440,196 rubles in 1900, 3,250,000 rubles from the mint, against 4,018,000 rubles, 33,021,000 rubles from the post-office, against 30,226,900 rubles, 21,000,000 rubles from telegraphs, against 10,739,453 rubles, and 462,808,000 rubles from the sale of spirits, against 169,143,000 rubles; 508,414,988 rubles were derived from State domains, mines, and railroads, against 350,960,000 rubles in 1901. Taxation of lands, against 18,558,881 rubles in 1900, 63,013,400 rubles from Crown forests, against 54,813,300 rubles, 396,072,000 rubles from State railroads, against 390,800,000 rubles, 326,458,000 rubles from Crown mines, against 13,195,494 rubles, 15,021,251 rubles from Crown capital and banking operations, against 13,282,307 rubles, and 2,931,400 rubles as the crown's share in private railroad profits, against 4,210,000 rubles; 727,992 rubles were derived from sales of domains, against 573,291 rubles in 1901; 86,431,000 rubles were derived from redemption of peasants' lands, of which 26,547,870 rubles came from liberalized serfs, against 37,532,242 rubles in 1900, and 49,883,130 rubles from Crown peasants, against 51,374,238 rubles; 67,529,847 rubles were derived from miscellaneous sources, viz., 9,039,300 rubles from railroad debts, against 10,785,804 rubles in 1900, 39,720,322 rubles from Crown debts, against 39,396,151 rubles, 21,850,156 rubles as aid from municipalities, against 19,725,242 rubles in 1900, and 8,000,000 rubles as military contributions, the same as in 1900; 2,296,158 rubles were derived from other sources, against 5,903,327 rubles in 1900. Of the ordinary expenditures in 1902 the state debt absorbed 274,900,743 rubles in 1901 and 296,450,713 rubles in 1902, the higher institutions of state 3,155,401 rubles in 1901 and 3,090,867 rubles in 1902, the Holy Synod 25,793,800 rubles in 1901 and 27,894,151 rubles in 1902, the Ministry of War 324,024,871 rubles in 1901 and 322,638,537 rubles in 1902, the Ministry of the Navy 95,597,866 rubles in 1901 and 98,318,864 rubles in 1902, the Ministry of Justice 38,392,000 rubles in 1901 and 335,198,430 rubles in 1902, the Ministry of Agriculture and State Domains 40,725,781 rubles in 1901 and 43,242,521 rubles in 1902, the Ministry of the Interior 35,000,000 rubles in 1901 and 205 rubles in 1902, the Ministry of Public Instruction 383,143,469 rubles in 1901 and 435,547,758 rubles in 1902, the Ministry of Justice 46,227,305 rubles in 1901, the state Control 7,117,715 rubles in 1901 and 7,638,860 rubles in 1902, the state studs 1,699,746 rubles in 1901 and 2,046,942 rubles in 1902, various ordinary expenses 30,853,138 rubles in 1901 and 15,000,000 rubles in 1902. Of the extraordinary expenditures of 1902 the sum of 165,656,496 rubles was required for building new railroads and 5,000,000 rubles were reserved for various expenses.

The money in the treasury on Jan. 1, 1901, amounted to 106,500,000 rubles. The liabilities due to the state at that date amounted to 2,388,664,431 rubles, of which 252,880,063 were military contributions, 225,648,137 rubles railroad debts, 1,488,017,970 rubles debts incurred for the redemption of peasants' lands, 106,493,507 rubles debts of local treasuries, 122,894,829 rubles the debt of the nobles' land bank, and 164,724,722 rubles various other debts. There were pension funds and funds for alleviation of famine, scientific prizes, and other purposes amounting to 375,410,489 rubles. The payments of interest on the state debt amounted to 248,890,384 rubles in 1901 and 258,815,418 rubles in 1902, redemption of capital in 1902, 25,905,922 rubles in 1901 and 27,515,774 rubles in 1902, expenses to 113,437,021 rubles in 1901 and 127,521 rubles in 1902; total debt charge, 274,909,743 rubles in 1901 and 295,922,450 rubles in 1902.

The aggregate receipts of the Zemstvos of European Russia, the Caucasus, Siberia, the Steppes, and Turkestan amounted in 1900 to 78,764,000 rubles, and expenditures for 78,929,000 rubles. Although the economic situation of the peasants and landowners in Russia is the reverse of prosperous and the state-aided and protected industries that have arisen from the checking of agriculture are undergoing a crisis, the finances of the Imperial Government, by the showing of M. Witte, have steadily improved, in spite of the large borrowings abroad and apparent increase of the debt. While the debt has grown from 5,389,200,000 rubles to 6,497,300,000 rubles, the national capital in railroads and in money owed to the treasury has increased from 2,382,390,000 rubles to 4,614,800,000 rubles, reducing the net debt by 36 per cent., without taking into account the value of fortresses and ships of war, of public factories and docks, or the increased value of domains and forests. Besides a reserve fund of 114,000,000 rubles at the close of 1901, the Government had 127,200,000 rubles of the 4-per-cent. loan raised in the spring, making a fund of over 40,000,000 rubles, from which 144,000,000 rubles could be taken to balance the budget of 1902. The ordinary budget has increased 86 per cent. in ten years, but the main increase is due to the growth of railroad expenses, which are counterbalanced by an equivalent increase in income. The expenditure on education, including the sums allotted for the purpose in the military and naval budgets and those of the Holy Synod and other ministries, amounted in 1902 to 74,800,000 rubles, which was twice as much as in 1892. A new Russian loan of 181,959,000 rubles at 4 per cent. was taken in Germany, Holland, and Russia in April, 1902, to enable the Government to pay off the Chinese indemnity claims to be recouped by China, and to make advances to railroad companies.

The Government in 1895 fixed a ratio at which gold would be received for payments to the treasury and the railroads. The ratio of 10 rubles in gold for 15 paper rubles was finally settled upon, and in 1897 a law was passed requiring the state bank to maintain a gold reserve of half the paper currency issued up to 600,000,000 rubles and of the full amount for all in excess of that sum. The Government anted the State Bank had accumulated a gold stock equivalent to 1,315,000,000
paper rubles, exceeding the amount of paper currency in circulation by 316,000,000 rubles and exceeding by 452,500,000 paper rubles the legal metallic reserve, which was 575,000,000 rubles in gold, equivalent to 882,500,000 rubles in paper. Since then 439,000,000 rubles of paper have been withdrawn from circulation. The gold coinage, including recoining, from 1866 to 1896 inclusive, amounted to 183,305,630 gold rubles. In 1897 the new gold imperials were inscribed as of the value of 16 rubles, instead of 10 rubles. In 1897 the coinage of gold rubles at the new ratio was 331,577,560 rubles; in 1898, 265,870,147 rubles; in 1899, 378,000,000 rubles; in 1900, 161,955,156 rubles. There were coined in the four years 145,120,000 rubles of silver rubles and 15,000,000 rubles of subsidiary coins. By January, 1900, the paper currency had been reduced to 830,000,000 rubles, at which figure it has since been maintained. By January, 1902, there were 1,325,000,000 rubles of gold in the vaults of the treasury and the bank, which contained also 233,400,000 rubles of silver. The gold reserves covered the paper money to the extent of one and a half times, and the sum of 820,100,000 rubles set aside as a guarantee fund was exceeded by 32 per cent. the entire circulation.

The Navy.—The number of young men who annually reach the age of twenty-one and are liable to military service is 870,000, of whom 385,500 were taken into the active army and the navy; 285,101 were enrolled in the Opolchenie, or militia. The annual contingent includes the frontier customs guards, and in the number given were 16,600 natives of the Caucasus, 1,906 Finns and 7,000 others. The period of service in the active army is nominally five years and really four years; after the five years are over the discharged soldier belongs to the Zapas for thirteen years, and then for five years to the Opolchenie. In the Caucasus the conscripts remain only three years with the colors, but in Asia the period is seven years. European Russia, with Finland and the Caucasus, is divided into 9 military circonscriptions and the district of the Don Cossacks. There are 25 army corps in the European army, including the corps of guards, the grenadier corps, and 2 corps in the Opolchenie, the 3 military circonscriptions of Turkestan, Sibera, and the Amur. The effective of the Russian army comprises 1,088 battalions, 636 squadrons, 521 field-batteries, 224 companies of the reserve-artillery, and 164 companies of engineers in Europe and 109 battalions, 93 squadrons, 38 batteries, 22 companies of fortress-artillery, and 31 companies of engineers in Asia; total, 1,177 battalions, 729 squadrons, 559 field-batteries, 246 companies of field-artillery, and 195 companies of engineers. The corps of custom-house officers on the frontier is organized in 31 brigades, including 2 in Turkestan, and numbers about 1,000 officers and 30,000 men. The numerical strength of the Russian army is estimated at over 40,000 officers and 900,000 men on the peace footing, exclusive of the customs guards and marine troops. In case of mobilization the field-army is approximately estimated at 16,500 officers and 1,000,000 men in the infantry, 3,900 officers and 120,000 men in the cavalry, 3,500 officers and 119,000 men in the artillery, 1,100 officers and 46,000 men in the engineers, and 490 officers and 26,000 men in the train; 1,296,000 men, with 300,000 horses and 3,856 guns. The reserve troops are estimated at 15,470 officers and 832,300 men of all arms, with 163,000 horses and 1,576 guns. The fortress troops are estimated at 2,600 officers and 160,000 men in the infantry, 1,500 officers and 80,000 men in the artillery, and 400 officers and 12,000 men in the engineers; total, 4,450 officers and 253,000 men, with 3,700 horses and 128 guns. The troops of replacement are estimated at 6,640 officers and 373,700 men of all arms, with 56,500 horses and 430 guns, the troops of national defense at 10,500 officers and 744,000 men, and the frontier custom-house guards at 1,000 officers and 40,000 men, with 15,000 horses, making the total war strength of the Russian army 66,410 officers and 3,548,000 men, with 502,200 horses and 5,518 guns. The Russian army was scandalized in March, 1902, by the discovery that Lieut.-Col. Grimm of the general staff in Warsaw, whose duty was to furnish secret information to foreign governments, had been bribed to furnish to German and Austrian staff-officers for several years past the true plans of frontier fortresses. Grimm was cashiered, and was sentenced to penal servitude in Sakhalin and all plans were changed, entailing a cost of many millions.

The Baltic Fleet in 1901 comprised 15 armor-clad battle-ships, 12 armored coast-defense vessels, 18 first-class armored cruisers, 3 smaller armored cruisers, 8 second-class cruisers, 4 torpedo-cruisers, 4 armored gun-vessels, 5 coast-defense gun-boats, 3 school-ships, 6 steam-yachts, 11 destroyers, 46 first-class torpedo-boats, 78 second-class torpedo-boats, and 7 transports. There were building 10 destroyers, 7 coast-defense vessel, 2 armored cruisers, and 18 destroyers. Since the first Russian submarine boat was built in 1901 as many as 50 have been ordered and some of them completed. Of destroyers, 13 were added to the 21 already launched by the beginning of 1902. The first-class battle-ships Borodino, Alexander III, and Orel, launched in 1901 and 1902, of 15,400 tons, have a complete belt of armor, 11 inches at the thickest part, engines of 16,300 horse-power, to give a speed of 18 knots, and an armament of 4 12-inch guns coupled in fore and aft turrets, 12 6-inch quick-firers in high turrets amidships, and 20 3-inch and numerous smaller quick-firers. The engines, of 10,800 horse-power, are designed to give a speed of 17 knots. The Krona Potemkin is a sister to the Germanenta, and another of this type is building in the Baltic. The Retvisan, of 12,700 tons, has 10-inch armor like these, engines as powerful as on the Borodino, and carries 4 12-inch guns, 12 6-inch and 12 3-inch quick-firers. The Tsarevich, Krona Suvaroff, and Slava, launched in 1901, of 13,100 tons, having the same steam-power and speed, carry 4 12-inch guns and 20 6-inch quick-firers in turrets above and below these 20 3-inch quick-firers. The coast-defense vessel Admiral Boutkoff, of 6,000 tons, is armed with 2 8-inch quick-firers. The Bogatyr and Askold, built in Germany, the Waryag, built in the United States, and the Almaz and Oleg, built in Russian yards, of 6,500 tons, have engines of 20,000 horse-power, capable of steaming 23 knots, and are armed with 12 6-inch, 12 3-inch, and 6 smaller quick-firers. The Novik, of 3,000 tons, built in Germany, is a 25-knot torpedo-cruiser and 140 3-inch quick-firers. The Boyarin, built in Denmark, is of the same class, and several of these destroyer-destroyers are being built in Russia.

The Black Sea fleet in 1901 consisted of 8 bat-
ruled on a length of 10.1 acres being about 65 rubles, or 6 rubles 37 kopecks per acre, giving to the landlord after clearing off an average debt of 27 rubles at 10.1 percent per annum, 1.246,800,000 poods of rye, 480,000,000 poods of barley, and 77,995,000 poods of millet; of Poland, 21,244,000 poods of wheat, 66,788,000 poods of rye, 45,531,000 poods of oats, and 21,100,000 poods of barley, 1,246,800,000 poods of barley, and 77,995,000 poods of millet. The mines and furnaces in 1899 produced 38,778 kilograms of gold, 5,982 kilograms of platinum, 4,677 kilograms of silver, 318 tons of lead, 7,419 tons of zinc, 2,670 tons of copper, 573,000 tons of rolled iron, 1,341,000 tons of steel ingots, 13,700,000 tons of naphtha, and 1,643,000 tons of salt. Of the gold 28,276 kilograms was obtained in Siberia and 10,465 kilograms in the Urals, where all the platinum is found. The ores of iron were mined in 1900. The Urals in 1899 produced 15,540 tons of chrome iron in 1899. In southern Russia 357 tons of quicksilver were extracted. In 1900 the production of pig-iron in the south of Russia was 1,483,000 tons; of manufactured iron, 40,000 tons; of rolled steel, 844,300 tons. The Urals produced 10,800,000 tons of pig-iron, 275,000 tons of iron, and 182,000 tons of steel; Poland, produced 295,000 tons of pig-iron, 125,000 tons of iron, and 204,000 tons of steel; the Moskow district produced 230,000 tons of pig-iron, 40,000 tons of iron, and 124,000 tons of steel; the region of St. Petersburg produced 34,500 tons of pig-iron, 50,800 tons of iron, and 56,300 tons of steel. The total production of pig-iron was 2,651,000 tons; of wrought iron, 8,300,000 tons; of rolled steel, 1,240,000 tons; of steel ingots, 1,616,000 tons. The consumption of iron and steel in 1900 was 3,014,300 tons. The imports of pig-iron were 51,700 tons; of iron and steel manufactures, 280,000 tons. Finland in 1898 produced 27,000 tons of pig-iron, 15,000 tons of wrought iron, and 14,000 tons of rolled steel. The manufacture of agricultural machinery in 1897 amounted to nearly 10,000,000 rubles, having quadrupled in thirty years. On July 20, 1901, the import duty on iron, equal to 26 rubles per ton, was repealed. The imports of iron ores amounted to 3,000,000 tons in 1899, 1,300,000 tons in 1900, and 1,000,000 tons in 1901. The imports of coal and coke were 4,417,000 tons. The oil from the Baku wells yielded in 1900 660,763,812 poods, or 9,840,510 tons, of crude petroleum. The production of illuminating oil was 2,101,000 tons; of lubricating oil, 210,000 tons; of vulture, 225,000 tons; of illuminating and heating oils, 353,000 tons; of residuum, 4,706,000 tons. The Terek wells gave 495,000 tons of crude oil. The consumption of Russia requires 6,450,000 tons of crude oil. In 1900 the production of Baku was 671,000,000 poods, equal to 12,000,000 tons of naphtha, having increased from 8,400,000 poods in 1884, when Baku, which now has nearly 250,000 inhabitants, contained fewer than 70,000. The oil produced for export in 1901 was 2,500,000 tons, while over 5,000,000 tons of residuals were used as fuel on the eastern and southern Russian railways and the steamers plying on the Black Sea, the Volga river, and the Caspian Sea. The expectation that the oil-supply would prove limited and become soon exhausted is no longer entertained. Some wells have given out, yet the number of producing wells has grown from 458 in 1891 to 1,294 in 1901 and 315 old wells have been deepened. The drainage of a lake covering a rich new field has been undertaken in 1904. In early 1905 the oil frequently bursts forth in fountains that jet 200 feet in the air. The price of crude oil, which rose to 16.7 kopecks per poosh in 1898, declined to 5.45 kopecks per poosh in 1904. The number of persons employed in mineral industries in 1899 was 846,000, of whom 202,000 were in the Urals, 130,000 in southern and south-
western Russia, 62,000 in the center, 31,000 in the southeast, 33,000 in the Caucasus, 42,000 in the northwest and Poland, 32,000 in the north and Finland, and 62,000 in Siberia. Manufacturing in Russia proper employed 2,098,542 persons in 1899, and the value of the products was 2,283,144,000 rubles. There were 39,929 establishments. The value of cotton manufactures in 1897 was 400,218,000 rubles. The quantity of tobacco manufactured in 1898 was 80,280 tons. The production of spirits in 1900 was 87,098,000 gallons. The number of distilleries was 2,046. Since July 1, 1901, the Government monopolizes the sale of spirits throughout European Russia. The production of beer in 1898 by 1,017 breweries, was 115,800,000 gallons. There were 1,454,000 acres planted to the sugar-beet in 1901, and there were 277 sugar factories. The production of refined sugar in 1898 was 754,728 tons. The total value of imports into Russia, including the trade with Finland, was 572,496,000 rubles in 1898, compared with an average of 565,461,000 rubles for the previous five years; the value of exports was 888,552,000 rubles, compared with 878,585,000 rubles. Excluding the trade with Finland, the value of the imports was 511,199,000 rubles, and of exports 419,950,000 rubles; the value of imports of raw materials and manufactured articles was 304,579,000 rubles, and of import duties 299,942,000 rubles; imports of live animals were 1,136,900 rubles, and of Born 1,700,000 rubles; imports of manufactured articles were 187,001,000 rubles, and exports 18,000,00 rubles. The exports of wheat was 37,638,256 hundredweight; of rye, 30,651,015 hundredweight; of barley, 17,282,558 hundredweight; of oats, 25,794,862 hundredweight; of corn, 6,158,523 hundredweight; of other cereal products, 18,129,891 hundredweight. Of meat, 23,820,000 were exported to France, 15,307,000 to Great Britain, and 14,075,000 to the Netherlands; of rye, 3,569,000 to France, 23,030,000 to Great Britain, and 13,519,000 to Great Britain; of barley, 17,955,000 to Germany, and 8,652,000 to the Netherlands; of oats, 39,354,000 to Great Britain, 13,519,000 to Great Britain, and 17,575,000 to Germany, France, and Belgium. The naphtha exports in 1900 were 71,204,000 pounds of illuminating oil, 10,202,000 pounds of lubricating oils, 8,620,000 pounds of waste, total, 86,878,000 pounds. The imports of grain and flour were valued at 31,352,000, besides 52,000,000 pre- served eggs in cans, valued at 231,000 rubles. The total value of grain and flour exported was 304,688,000 rubles; of eggs, 31,585,000 rubles; of sugar, 15,330,000 rubles; of dairy-products, 13,709,000 rubles; of potatoes, vegetables, and fruits, 3,072,000 rubles; of fish and caviar, 2,217,000 rubles; of meat, 1,197,000 rubles; of tobacco and cigarettes, 2,457,000 rubles; of alcohol and liquors, 682,000 rubles; of various food products, 5,170,000 rubles. Among raw materials and partly manufactured goods exported the value of timber and wood manufactures was 58,384,000 rubles; of flax, 49,098,000 rubles; of naphtha products, 45,973 rubles; of oil-seeds, etc., 37,945,000 rubles; of oil-cake, 15,540,000 rubles; of furs and leather, 13,667,000 rubles; of bristles, feathers, and hair, 7,343,000 rubles; of manganese ore, 6,360,000 rubles; of wool, 5,930,000 rubles; of platinum and other raw metals, 1,840,000 rubles; of other articles in a crude or half-manufactured state, 13,380,000 rubles. Of the manufactured goods exported the value of metal manufactures was 3,532,000 rubles; of gutta-percha manufactures, 3,384,000 rubles; of cotton goods, 2,081,000 rubles; of woolen goods, 1,899,000 rubles; of various manufactures, 8,688,000 rubles. Of food articles and beverages imported the value of tea was 23,059,000 rubles, besides 16,555,000 rubles through the winter trade; value of spirits, wine, beer, and spirits, 12,735,000 rubles; of fruits, vegetables, and nuts, 10,061,000 rubles; of coffee, 5,350,000 rubles; of rice, 2,188,000 rubles, besides 1,491,000 rubles from Persia; of tobacco, 2,133,000 rubles; of various articles, 10,295,000 rubles. Of raw and partly manufactured articles the imports of raw cotton were 63,201,000 rubles; of coal and coke, 42,689,000 rubles; of metals, 30,673,000 rubles; of wool and woolen yarn, 21,759,000 rubles; of gums and resins, 21,175,000 rubles; of leather, hides, and skins, 15,397,000 rubles; of silk and silk yarn, 13,292,000 rubles; of chemicals, 12,500,000 rubles; of colors, 11,926,000 rubles; of various materials, 66,914,000 rubles. Among the manufactured goods imported the value of machinery was 50,002,000 rubles; of textile goods, 16,029,000 rubles; of various manufactures, 65,285,000 rubles. The values in rubles of the imports from and exports to the principal countries in 1900 are given in the following table:

<table>
<thead>
<tr>
<th>Country or Country Group</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>215,416,000</td>
<td>197,315,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>198,176,000</td>
<td>143,864,000</td>
</tr>
<tr>
<td>France</td>
<td>31,298,000</td>
<td>27,444,000</td>
</tr>
<tr>
<td>Austria-Hungary</td>
<td>20,020,000</td>
<td>16,051,000</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,980,000</td>
<td>23,401,000</td>
</tr>
</tbody>
</table>

From the United States the value of 43,615,000 rubles was imported; from China, 16,278,000 rubles; from Egypt, 11,938,000 rubles. Exports to the Netherlands were valued at 69,192,000 rubles; to Italy, 36,755,000 rubles; to Turkey, 18,322,000 rubles; to Denmark, 18,290,000 rubles. The imports from the United States valued at 15,519,000 rubles, of the total imports in 1900, the same as in 1890, while the percentage of Germany rose from 27.5 to 37.6 per cent. The Government is endeavoring to induce the United States to sell the Russian market for the British market instead of rye for the German market since the increase of the German protective duties. The cultivation of corn has already doubled since 1883. More Russian butter is sold now in England than in Germany, and eggs and poultry are exported, but not meat, because the quality of the Russian breeds of cattle is inferior. American as well as German competition affects British exports to Russia.

Russia did not take part in the Brussels Sugar Conference (see BELGIUM), contending that no sugar bounties were granted by its Government to exporters. This involved the Government in a controversy with the English and other governments that signed the convention of the same kind that has existed between the Russian and the United States governments. Finance Minister Witte proposed a further conference to reconsider the sugar question. Germany, England, Austria, and France declined to reopen the question. The English Government replied on July 30 that it had agreed to the formation of an international commission empowered to determine whether the sugar bounties existed and whether they were in favor of the convention; therefore, if Russia did not adhere to the convention and if the commission, when constituted, recognized the existence of sugar.
bounties in Russia, England would be bound to impose retaliatory duties on Russian sugar, and such a step would be in accordance with the Rus-
so-British commercial treaty of 1893. The Russian
reply, sent in September, described its sugar reg-
ulations as internal measures for the furtherance
of Russian industry, which the favored-nation
clause in the treaty allows to both countries, and
asserted therefore that countervailing duties upon
Russian sugar would constitute a breach of the
treaty, as the British Government had itself de-
clared after 1887. The exportation of Russian
sugar to the signatory countries was unimport-
ant, yet to decide the principle, Russia proposed
arbitration by The Hague tribunal, and would not
object to have the question tried to as all
kind of procedure.

Navigation.—The number of vessels entered at
Baltic ports during 1890 was 5,986, of 3,774,000
tons; at Black Sea ports and in the Sea of Azof,
3,976,000 tons; and in the White Sea ports, 711,
of 401,000 tons; total number entered, 10,678,
of 8,549,000 tons. The number cleared was 700 in
the White Sea, 5,070 in the Baltic, and 3,335 in
the Black Sea and Sea of Azof, total, 9,102. Of 5,516
vessels entered at Black Sea ports and in ports of
European Russia, of 4,097,000 tons, 1,191,
of 732,000 tons, were Russian and 4,337, of 3,365-
000 tons, foreign; of 9,102 cleared, 7,171,000 tons,
1,291, of 721,000 tons, were Russian and 7,711,
of 6,430,000 tons, foreign. The number of vessels
that visited Russian ports on the Caspian during
1890 was 945. The number of vessels entered at
the ports of Vladivostok and Nikolayevsk in the
Pacific during 1898 was 384. The number of
coasting vessels that visited the Baltic, White Sea,
and Black Sea ports in 1899 was 46,426, and the
number that visited ports on the Caspian was
19,112.

The Russian merchant navy on Jan. 1, 1900, comprised 2,942 sailing vessels, of 260,418 tons, and 708 steamers, of 334,575 tons. There were
630 sailing vessels, of 66,754 tons, belonging in
the Baltic in 1899, and 114 steamers, of 39,917 tons;
in the White Sea, 416 sailing vessels, of 23,902
tons, and 114 steamers, of 39,960 tons; in the
Black Sea and Sea of Azof, 659 sailing vessels, of
43,937 tons, and 297 steamers, of 165,804 tons; in
the Caspian, 517 sailing vessels, of 111,835 tons, and
204 steamers, of 122,081 tons. The Govern-
ment made a definite arrangement with the Black
Sea volunteer fleet in 1902 to enable it to trade
with ports of Persia and the far East. The trea-
ury gives a subsidy of 1,000,000 rubles a year for
ten years, and the fleet will be increased to
10 steamers. To encourage Russian ship-building
the Government has offered to lend half the cost
on each vessel, and to take two-thirds of the in-
surance at 2 per cent, per annum and to give a
navigation bounty of half the cost of the fuel, if
Russian fuel is used. All material and fittings
in built ships must be Russian.

Railroads.—The Russian railroad system at
the end of 1901 had a total length of 36,352 miles,
exclusive of 1,755 miles in Finland. The Ministry of
Ways and Communications had control of 34,771
miles, of which 23,340 miles were Government
railroads, 10,383 miles belonged to companies,
and 1,086 miles were short local lines. Of 29
connected lines of railroad the Government
owned and operated 20, embracing 60 per cent.
of the mileage. There were besides 6 isolated lines.
The annual losses which the railroads formerly
earned on passenger traffic were very small, and
ago to 30,000,000 rubles in 1898, disappeared in 1893,
and the net profits have increased with the transfer
of railroads from private to Government ownership
and management. In 1899 the gross earnings from
27,485 miles were 540,167,000 rubles. In 1898 they were 495,863,233 rubles from 26,689
miles, and the operating expenses were 305,761,649
rubles, leaving 189,201,584 rubles as net receipts;
number of passengers transported, 92,442,045; tons
of freight, 130,775,000. The capital cost of
the Government railroads was 1,217,755,042 rubles in
gold and 1,043,666,180 rubles in paper, equal to
2,870,928,792 paper rubles in all. The annu-
vale of the Government from the state lines in
1899, after paying 111,335,208 rubles of interest on
capital borrowed for their purchase, was 18,134-
080 rubles. The capital cost of private railroads
was 534,421,985 rubles in gold and 633,840,332
rubles in paper, equal to 1,755,473,310 rubles in all,
on which an annual interest of 44,065,116 rubles
is paid. The gross earnings of private lines in
1899 were 160,675,883 rubles, and in 1900 they
were 163,148,544 rubles; expenses in 1899 were
160,543,647 rubles, leaving 60,182,880 rubles of
net earnings.

The Siberian Railroad in 1900 carried 700,000
tons. The first section of this line, from Chelya-
binsk to Omek, 483 miles, was completed in 1886,
and the section from Omek to Nizhni Novgorod,
200 miles, in 1886, and in the same year the branch
from Chelyabinsk to Ekaterinburg, 150 miles, con-
necting with the Russian network through the
Ural Railroad from Perm to Tyumen. The Pacific
section, from Vladivostok to Khabarovsky, 475
miles, was ready in the middle of 1897, and the
middle sections from the Ob to Krasnoyarsk and
to Tomsk, 63 miles, from Tomsk to Irkutsk, 329
miles, from Irkutsk to Lake Baikal, 42 miles, from
the Lake Baikal station of Myso-
vaya through Serytensk to Pokrovskoye on the
Amur, 925 miles, were built successively. In 1897
the Manchurian Railroad was begun, which con-
nects the Siberian trunk line with Vladivostok
through Chinese territory, and also with Port Ar-
thur and Dalny. From Kaidalovo, in Transba-
kalia, this line, which avoids the enormous engi-
neering difficulties presented by the route through
Russian territory from Pokrovskoye to Vladivos-
tok, crosses the frontier in the Black Sea area
and runs through Harbin and Gradekovo to
Vladivostok, while the line to Port Arthur and
Talienwan branches off at Harbin. The Manchuri-
an lines have a length of 259 miles. Of 200,000
miles of which 1,274 miles, making the total length
of the railroads of Asiatic Russia 3,844 miles in
1899, the gross re-
receipts of which for the year from 1,862,594 passen-
gers and 3,006,800 tons of freight were 24,226,397
rubles, while the operating expenses were 26,125-
195 rubles. In 1898 on 3,085 miles in Asia 1,530-
283 passengers and 2,721,400 tons of freight were
carried, paying 20,943,179 rubles, while operating
expenses were 20,984,260 rubles.

The White Sea port of Archangel is in com-
munication with the main network through a
line built in 1897 to Vologda, and another line to
Kotlas will connect with the Siberian Trunk
Railroad through Perm. Important lines are pro-
jected to run from Pultava to Kief, from Niishi
Novgorod to Romeromou to Orenburg to Tashkend, from St. Peter-
burs to Vyatka, from Bologoye to Siedle, and
from Orenburg to Tashkend, which is already in

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imprisonment discuss together political reforms. The intellectual leaders, the chief literary lights of Russia, live in exile, but their writings can not be banished. In the present political revolution, the antiquated classical curriculum and the priso-

nongums of the universities. M. Bogole-
Poff, the Minister of Education, was murdered by a desperado, Yannovsky, who took the portfolio with the intention of introdu-

cing reforms. His policy of conciliation was recog- nized, but no adequate redress was expected in face of the opposition of the Department General of the Holy Synod and the Minister of the Interior. A large proportion of the students, car-

ried away with ideas of political and social revo-

olution, thought that the government's claim of

agitation when they could make common cause

with the unemployed and discontented working

men.

The movement among a section of the students of the higher educational establishments of the empire assumed toward the end of 1901 a char-

acter openly revolutionary. The leaders of the movement no longer confined their declarations of dem-

anding various changes in the organization of the universi-

ties, but endeavored, both in speeches made at meetings held without permission within the walls of the institutions and in the form of secret appeals and proclamations, to induce their

comrades to take part in a political movement, and openly declared that changes were neces-

sary in the present form of government. In the

same time these leaders, recognizing how power-

less the students were to realize by themselves the objects of the movement, entered into inti-

mate relations with the existing revolutionary

groups and clubs. Animated by the same spirit, they carried on an illegal propaganda in the

community and amid the workmen of the large

towns. To this end they not only employed per-

sonal persuasion, but distributed for this pur-

pose literature. The agitators saw that one of the most obvious means for furthering their objects was the organization of street demonstrations, and these demonstrations were made in

various cities. A vast secret association existed

among the laboring community throughout Rus-

sia which was headed by students in the large
towns. In Moscow, Odessa, Kief, and other

manufacturing centers were printed well-edited secret organs of the working class, inveighing not only against capitalistic exploitation, but attack-

ing the Government and the landlords. Pam-

phlets were circulated widely, while the police
were unable to discover the publishers or the presses. Circulars giving details and announce-

ments of revolutionary demonstrations were is-

sued broadcast. Subversive documents were found in the possession of officers as well as privates in

the army and of men on the ships of war.

The Government warned the agitators that if

they provoked trouble the universities might be closed and all students set back for a year. Po-

tical suspects of all classes were expelled from the cities and sent to the provinces, and the

result that disaffection was fomented by them in

the villages throughout Russia. On Feb. 15 street riots, announced beforehand by handbills showered down from the gallery of the theater, were started in Kief by students and working

men, who unfurled red flags, sang revolutionary

songs, and shouted for the overthrow of the

autocracy. The expression stimulated by the

narrow streets for three days, wounding many

and killing some. On Feb. 21 St. Pe-

tersburg students and workmen made a demon-

stration denouncing the Emperor and his Gov-

communication with the Caspian by the Central

Asian line running to Andijan, with a branch from Merv to Kushka. This last will connect at

Samara with the Siberian line. In the Caucasus a new railroad connects the Rostoff and Vladik-
avkaz line with Baku through Beslan, Petrovsk and Derbend, and lines have been built to connect Tiflis with Batumi, to Skiassk and Tarsiinsk, and Kavka-

zask and Eskiask, with Ekat-

rinodar. The Siberian Railroad was opened be-

fore the close of 1902 to through traffic from Port

Arthur to St. Petersburg. The connection of the

Siberian and Transcaspian Railroads is planned by means of a railroad from Tomsk through

Semipalatinsk and Verni to Tashkend. The har-

bor at Dalny, which is a free port, has been

improved at immense expense. A free harbor has been opened at Vladivostok, where goods from

China are imported free of duty and articles brought in foreign ships can be transhipped in bond. The journey from Paris to Pekin is made over the Russian Railroad in less than fifteen

teen days.

Post and Telegraphs.—The post-office in 1900 transmitted 447,667,956 internal letters and

postal cards, 13,010,059 money letters, 72,435,867

book packets, 246,633,628 newspapers and peri-

odicals, 49,947,979 parcels, 10,031,935 postal orders,

and 229,601 telegraphic orders, and in the inter-

national service 54,908,331 letters and postal cards, 691,263 money letters, 23,922,722 book

packets, 11,755,759 newspapers and periodicals,

674,572 telegraphic orders, and 62,282 postal orders. The postal receipts were 30,682,201. In 1899 the rece-

ipts were 29,440,717 rubles, and expenses 33,-

154,423 rubles.

The telegraphs on Jan. 1, 1900, had a total length of 98,570 miles, with 209,634 miles of wire.

The number of messages in 1899 was 18,376,985,

besides 81,900,000 railroad telegrams. The tele-

phone-lines in 1899 had 41,850 miles of wire, and

the number of conversations was 97,565,867.

Revolutionary Movement.—The industrial depression, which threw great numbers of work-

men out of employment and caused a lowering

of wages and lengthening of the working day, and

the results of the famine of 1901 in southern

and eastern Russia, afforded the Socialists and

Liberals an opportunity to stir an agitation

among the people which the nihilists twenty years earlier were unable to do, although they pre-

pared the way, when, throwing up their own careers, as to dwell among the workmen, they preached their subversive doctrines and taught many of the people to read and write. The Government by providing instruction for

recruits in the army prepared them to re-

ceive revolutionary literature and spread it in

their villages. The workmen were imbued with

the socialistic ideas of the working classes of

western Europe by the foreign skilled artisans

employed in every factory. The active propa-

gandists of revolutionary ideas were still to be

found among the students and the intellectual

proletariat and, as is characteristic of the im-

pressionable and sympathetic Russian race,

essentially democratic by nature and tradition, loyal to the Czar but not to the bureaucratic

hierarchy which is believed to conceal the state of

the country from the Czar, when the wave of

political and social unrest starts it spreads among all classes, and the repressive measures used to crush it only increase and multiply the excitement. The expression stimulates a rebellious spirit, so that revolutionary

tracts are sent out from Government offices, offi-

cers of the army form revolutionary clubs, and

members of the provincial nobility at the risk of
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On Feb. 22 students assembled with red flags in front of the university hall at Mos- cow who were ordered to disperse proceeded to wreck the buildings. A large number of women students participated in all these demonstrations, and these were beaten with Cossack whips as mercilessly as the men. On March 2 another riot took place in Kazan. Students barricaded themselves against the police and proclaimed the intention of setting up a republic. There were 537 students of the university, 111 students of other institutions, and 34 other persons of both sexes sentenced by administrative order for rioting or political dissatisfaction. Of these, 95 were sent to eastern Siberia for periods varying from two to five years and 567 were sentenced to from three to six months' imprisonment in Archangel. After one or two large gorges of student prisoners had broken out, in which they were confined it was decided to distribute these latter in the prisons of various towns throughout the empire. Some of them refused to eat in jail unless they were assured of a legal trial. The American consul received an appeal purporting to come from mothers and sisters of the students begging him, as the representative of a free nation, to make known to the Czar their situation and direct some remedy. A woman teacher named Allart fired a pistol at Col. Trepoff, chief of the Moscow police, and a few days later another attempt was made to assassinate him. Kharloff and other leaders were arrested, even the Warsaw Poly- technic after meetings of the students took place. From Kief 80 students were rusticated in different villages, and others from Kharloff were treated in the same manner. Strikes and labor riots occurred in all the industrial centers of south Russia, in the mining districts of the Urals, even in various places in Siberia. In Yaksterinoi village and other places strikers were shot down by soldiers. At Tula the soldiers refused to fire upon strikers. At Moscow, where the officers received letters appealing to them not to order the troops to fire upon the strikers, and refusal was threatened, even the Warsaw Polytechnic put on the day of the demonstration. In St. Petersburg a battalion of marine infantry would not fire upon the revolutionaries who had barricaded themselves for three days, and several officers were arrested for connivance with the revolutionaries. At Rostoff a political demonstration was allowed to pass peacefully because the police were too weak to successfully interfere. At Poltava and other quiet country towns the banished students scattered incendiary proclamations, cheered for Tolstoi, and shouted confusion to despotism. The police issued warnings in the cities that any person found in the streets after they were ordered to be cleared would be liable to imprisonment. On March 16, a few days after the university was reopened, a revolutionary demonstration took place in St. Petersburg in favor of freedom of association and assemblage, free speech, a free press, and personal liberty. Committees of students and of working men arranged the affair, distributing and posting on walls thousands of proclamations and sending notices to the officials of the provinces that labor unrest was to order the soldiers to fire upon the unarmed people whose only object was to make the Government acquainted with their demands by a peaceful demonstration. The university was reopened, their red flags and uttered their revolutionary cries only to be struck with the bare swords of the police and the knouts of Cossack horsemen, but none of them offered any resistance. Maxim Gorki, who was interned in the Crimea because he signed the protest of Russian authors against the brutality of the police in dealing with the students' demonstration of the previous year, was elected a member of the Imperial Academy of Sciences, but the Government annulled his election. On April 16 the Minister of the Interior was murdered by a student who pretended he was a messenger of the Grand-Duke Serge. He was the agent of a revolutionary society instructed to kill either M. Sipagin or M. Pobedomonskoff, whichever appeared first at the ministerial palace to attend a Cabinet meeting. Viat- sheshoff Constantinoivan de Plehwe, Minister for Finland, was appointed on April 17 to succeed M. Sipagin. Exiled Russians in Paris were discovered by the secret police to have had cognizance of the intended murder of one or both of the ministers, who represented reaction and rigorous repression in the Russian Cabinet. On April 20 Gen. Vannovski, who was appointed Minister of Education after the murder of M. Bogolepoff, resigned his post, his proposed reform of secondary education by giving studies a modern scientific direction having been condemned or postponed in consequence of the last revolutionary manifestations among the students. Constantin Zenger was immediately appointed Acting Minister of Public Instruction. The Ministry of War was not deterred by the prevalence of the revolutionary spirit from its efforts to raise the standard of general intelligence in the ranks of the army, primarily impelled thereto by the lack of an adequate supply of non-commissioned officers. It is essential that these should possess an elementary education, and those taken from the town population and the manufacturing districts on account of their possessing such education were found untrustworthy. Hence it was decided to enlarge the scheme of instructing the conscripts in the army, making instruction in reading and writing obligatory for all recruits in the infantry and artillery and for a part of the officers in each cavalry squadron. In May an attempt was made by a Jew to kill Gen. von Wahl, Governor of Vilna, for the flogging of persons who had taken part in sedition. In consequence of these and other murderous deeds, this also was decreed by a central revolutionary committee and was preceded by threatening letters. Similar threats of murder were sent to M. Pobedomonskoff, whose life was attempted in 1901, to M. de Plehwe, and to other high officials. The political assassins were tried by court-martial and executed. Some who were chosen by lot to execute the threatened vengeance of the revolutionary societies committed suicide rather than carry out the crimes. On Aug. 11 Prince Obolenski, Governor of Khar-loff, was wounded by an assassin and his life was saved by a lady conversing with him who struck aside the pistol. M. de Plehwe found that during the two years and a half that M. Sipagin was in office 60,000 persons had been exiled from the principal cities, including workmen sent back to their villages. He found also that these exiles had created new centers of dissipation and that the banishing them not to order the soldiers to fire upon the unarmed people whose only object was to make the Government acquainted with their demands by a peaceful demonstration. The university was reopened, their red flags and uttered their revolutionary
of their cases, and a large number of them were restored to their homes and civic rights. In the month of June some occurred at Kiev, where 192 persons were arrested. Disorders occurred also at Saratoff. The new Minister of Education removed some of the irksome regulations in the schools and placed the discipline in the universities and the adjustment of differences between students and professors under the jurisdiction of courts composed of members of the faculty. The German university authorities were enjoined from Berlin not to admit Russian students until the Russian embassy gave its approval in the case of every applicant.

Labor Agitation. — The immediate object of the working men was to obtain the right to organize in labor unions and to defend their interests by the methods that are free to the laborers of other European countries. The manufacturing industries of Russia are all new. When Russian capital was not forthcoming to develop the mineral resources of the country and build up domestic manufactures commensurate with the railroad facilities that had been created, M. Witte removed the restrictions on foreign capital and invited foreigners to start industrial enterprises which were to be carried on by the Government, not only by high protective duties, but by every means in the power of a paternal despotism. In the last twenty years a large number of companies and associations have sprang up from the exploitation of the vast sources of mineral and other wealth in southern Russia, the Caucasus, and the Urals, and the mountainous, which have hitherto been merely tapped by a few spots. Of these, 75 per cent. is French, Belgian, German, and British. Though the earlier companies have been successful, many of those that came later into the field obtained less desirable properties or such as could not be made profitable and financed them in a dishonest fashion, so that the public that took the stock was doomed to suffer losses. The failure of the harvest in successive years reacted on all industry. In 1902 two-fifths of the industrial enterprises were virtually insolvent and few were still making profits. Many concerns had already cut their wages and, as a result, a great many workers had been laid off and many persons, even women and children, had to earn their living by making cards and other laborious work in their homes. This, and many similar cases, were brought to the attention of the Government, and, after long discussion and prolonged debates, and trial in open court in the place of arbitrary arrest and administrative banishment. In Kiev they called for the rights possessed by their brethren in other European countries. In Moscow the workmen, among whom were educated socialists, who chose a life in the factories in order to teach revolutionary ideas, and also many socialist intellectuals, were favored by the Grand-Duke Serge Constantinovich and the police previous to the revolutionary outbreak. The official policy there was to encourage their desire to form labor unions on the English model and treat with their employers as workmen do in France and England, and by supporting them in such economic liberties to prevent the growth of political revolutionary ideas. In tea-rooms established in Moscow and neighboring manufacturing towns benefit societies were started under the auspices of the authorities, and tea-rooms were for them kept open in the evening, and political as well as religious, and, political as well as religious, were freely discussed. A clash occurred between the civil authorities and the manufacturers when the police interfered in the affairs of two of these labor unions. The latter, the French manager of the largest silk-mill, had with his workpeople. These complained that the manufacturer unjustly withheld many thousand rubles of their wages, and demanded arbitration. Col. Troppoff ordered the factory management to admit men he appointed to investigate and arbitrate, and when these men approved the claims and the manufacturer refused to pay, the weavers went on strike and were lodged and fed at the cost of the Government. In most places the strikes were for an increase of wages equal to recent reductions and a reduction of the hours of labor in the factories or a restoration of the hours that formerly existed. Silk, cotton, and other factories in Moscow and its vicinity were closed by strikes. When the new Minister of the Interior went to that city to investigate, a deputation of workmen submitted the rules of English trade-unions and threatened a general strike if the same privileges were not accorded to them. In November a series of trade unions of workmen in the railroad shops at Rostoff, organized by social democrats, did not end until Cossacks had killed and wounded many men. In St. Petersburg, when the workmen formed associations for improving their position, subject to governmental scrutiny.
A new criminal code for Russia on which a commission of jurists spent fifteen years makes strikes criminal when directed against the Government or when they lead to injuries to persons or damage to property. The code of 1845 consisted of 1,711 paragraphs defining each particular offense and grading the punishments from a reprimand up to other punishments, ranging from transportation to transportation and hanging, being reckoned as equivalent to so many reprimands. The new code makes imprisonment of various degrees of severity and duration practically the only kind of punishment, estimates degrees of criminality according to the circumstances and state of mind, and classifies crimes, instead of giving minute definitions, so that in a third of the number of paragraphs it embraces a great many crimes that were unknown when the old code was framed.

**Agrarian Disturbances.**—The nihilist students, the socialist workmen, and others relegate to country villages, to check the revolutionary propaganda in the towns, found among the starving peasantry a fertile soil for propagating disaffection and creating turmoil. The zemstvos, charged with the duty of collecting the agricultural statistics, had to employ strangers of intelligence on this work, and many of these revolutions and provocations in Russia are felt by everybody to be radically wrong. The peasants have since their emancipation from serfdom had their view of the causes of evils from which they suffer, and radical social thinkers have sympathized with their view. The allotments of lands to the villages were generally inadequate, and they were often sold as bad for a cow hide. In the Caucaus of 1902, when in the provinces that suffered from famine there was no grain left for either food or seed, students and other agitators spread far and wide a forged ukase telling the peasantry that the Czar had decided to cut up the estates of the nobles and divide the land among the peasants, having found out that these lands were theirs by right, and giving them permission to go to the granaries and barns of the nobles and help themselves to the seed, fodder, provisions, tools, and cattle they needed. In the governments of Poltava and Kharkoff the proceedings were not long in consequence of this permission. With long processes of carts they despoiled the grain-bins and fodder-stacks of the great estates. On the farms of the Duke of Mecklenburg the peasants who refused to move on were turned out by force. The authorities called out the military, who put down the rioters with ruthless severity, yet not easily nor quickly, because there were 18,000 peasants helping themselves, and these, when they saw the troops aiding the nobles and large landowners to defeat what they supposed was the will of the Czar, began to sack mansions and to destroy in blind rage everything that they did not carry off. Reinforcements of troops from other provinces were necessary, and the Governor-General of Kieff took command of the military operations. When the peasants broke into the barns on the estate of the Grand Duke of Oldenburg, in the government of Voronizeh, the troops, despite the appeal of the peasants that they were acting within their rights, charged with bayonets, killing and wounding a large number. Similar scenes took place on the properties of Prince Kotschulei, Gen. Durnovo, and the other principal landowners. Voronizeh the subject of most of these insurrections and disturbances and large quantities of sugar were dumped into the river. In some districts the peasants held village meetings and appointed committees, who waited on the landowners and ordered them to vacate the lands wrongfully withheld from the peasants after the emancipation proclamation. The agents of the landowners were driven off, and the peasants proceeded in an orderly manner to distribute the land and moveables, leaving the noblemen 15 or 20 acres as their share of the estate. It was not until the authorities intervened that the work of destruction and incendiarism began. The ravages extended to about 90 estates in Poltava and 20 in Kharkoff. Landowners and their stewards fled in terror. Some of the officials endeavored to mollify the peasants, while others showed extreme rigor, which became the rule when the military authorities had the situation in hand. Rioters who were caught were flogged inhumanly. The disturbances lasted from April 1 to April 17. The Government granted 300,000 rubles an immediate aid to the nobles who were robbed and appointed a commission to value the damages and to assess the whole amount on the communes according to the part their members had taken in the work of destruction, to be repaid in instalments by an extra annual tax. M. de Plehwe, after visiting the provinces in which the disturbances occurred, decided to have the collection of agricultural statistics suspended in Poltava, Kharkoff, Tula, Sinbirak, Samara, Penza, Orloff, Kursk, Ekaterniowsk, and Bessarabia, and to authorize the governors of the provinces to use zemstvos and zemstvo institutions to suspend them if they thought necessary. He warned the local authorities to regard with suspicion traveling book agents and peddlers and all strangers from abroad and to regard students. The idea that the lands retained by the nobles and those assigned to the Cossack colonies belong to the peasants was spread far and wide. The peasants who sold their portions of the Russian peasants by pretending to be lawyers who could establish them in their rights. In June workmen demolished factories at Rostoff, on the Don, and peasants simultaneously looted the estates of landowners and smashed agricultural machines, incited by strangers disguised in gorgeous uniforms, who said the Czar sent them to tell the people that machinery was a device for grinding the poor by diminishing the number of laborers. The troops killed and wounded many rioters. In Saratoff, Kherson, Kieff, Voronezh, and in the northern provinces of the lower classes were wrought up by the teachings of incendiary agents. A circular was distributed through the length and breadth of the empire and attributed to Tolstoi, urging the peasants to refuse to labor for employers for two years, at the end of which all land and property would then be abandoned to them. The crops in southern and central Russia were good for the first time in two years. About 300 peasants were tried for participation in the agrarian disorders of Poltava and Kharkoff. Prince Obolenski, the new Governor, who had been shot at by an emissary of the militant social democracy for letting loose the Cossacks on the riotous peasants, obtained leave to deal with them severely.

The state of Russian agriculture was made the subject of a commission, of which M. Witte was president, with subordinate commissions in the provinces. The zemstvos were excluded from direct participation in the inquiry. The marshal of the nobility in each province was the official head of the provincial commission, which was made up of the landed gentry. The opportunity of bringing forward were dismembered and constitutional liberty was not neglected by the Liberals of Russia, although the commissions were enjoined to confine themselves to economical discussions and practice within the limits they were allowed the fullest scope. The
decline in the prosperity of the peasant class was ascribed by some authorities to their ignorance and indolence and the primitive methods of agriculture in use, and some ascribe their backwardness to the communal system of the villages which deprives the peasants of any incentive to improve the land and discourages individual enterprise and initiative. The agricultural classes find fault with the inadequacy of the provisions for the encouragement of agriculture and the education of the masses, compared with the sums devoted by the Government to the development of industry, and also with the incidence of protective duties. Experts estimate that the richness of the black soil is being robbed of the elements of fertility and value the annual deterioration at 725,000,000 rubles a year, which could be balanced by maintaining 30,000,000 more horses and cattle than Russia now possesses. The peasants of each mahr in the majority of cases graze their cattle on common pastures and cultivate the fields in common, dividing the crops. In other communes, while pastures are common, the arable lands are allotted each year to heads of families. The Government decided to free the village communities of their joint responsibility for the payment of taxes and assess them separately on the individual members, so as to increase the freedom of the existing districts. It was decided to remit arrears of taxation amounting to 130,000,000 rubles. The famine of 1901 affected 17 governments having a population of 24,000,000, for whose relief the Imperial Government spent 32,500,000 rubles besides finding employment for 6,000 men. Under the communal system as it exists in Russia a peasant may not without the consent of the head absent himself from the village, but must remain to do his share of the work and bear his share of the taxes and debts unless he has such consent. If he is allowed to go out to earn wages elsewhere he must still pay his share, and there is no legal way of severing his connection with the community, not even by abandoning his share in the common lands. The zemstvos, whose powers were curtailed in 1890, put in a plea through their members who were on the committees for independence of the requisitions to which they were subjected by officials of the Central Government, for liberty to consult and cooperate among themselves, and in general for reorganization on a democratic basis. Because these suggestions were rejected as outside of the scope of the inquiry one committee dissolved. Other committees reported in favor of increasing the authority and independence of the zemstvos, giving the peasants as well as the landed gentry representation in these bodies, placing funds at their disposal, and consulting them on legislative measures affecting the rural population. To curb the abuse of local governments and other political questions the Government imprisoned or exiled some of the leading members of the provincial and district committees who were responsible for dragging these matters into the reports.

Finland.—The grand duchy of Finland, when united to Russia in 1809, preserved by grant of the Czar Alexander I its constitutional form of government. Its legislative body is composed of representatives of the Four Estates, viz., the knighthood and nobility, the clergy, the citizens, and the peasants. Laws are prepared by the State Secretaries of Finland in St. Petersburg and submitted to the Four Estates, whose unanimous consent is necessary for amendments to the Constitution or for the imposition of new taxes. The Czar in Finland bears the title of Grand Duke. The Governor-General is Gen. N. Bobrikoff. Finland owes its high state of civilization to its excellent educational system. There are 1,757 elementary schools, of which 283 are Swedish, 16 Swedish and Finnish, 1 Finnish and German, and 1,465 Finnish; also 50 lyceums, 20 modern schools, 38 girls' high schools, 7 training-colleges for teachers, 49 technical schools, 1 polytechnic, 1 university with 2,355 students, and numerous agricultural and commercial schools.

The area of Finland is 144,250 square miles. The population in 1890 was estimated at 2,673,200, divided into 1,322,949 males and 1,350,251 females, of whom the whole comprising 2,300,100 Finns, 362,500 Swedes, 7,500 Russians, 1,900 Germans, and 1,200 Lapps. In 1894, 1,079,000, of whom 3,993,000, or 75 per cent. of the population, was in the towns, and 2,330,802, or 25 per cent., in the villages and country districts. Barn, bad, 88,711 inhabitants. The number of marriages in 1899 was 19,536; of births, 88,335; of deaths, 35,945: excess of births, 52,516. The immigrants in 1899 numbered 79,074, and emigrants 76,326.

The receipts of the Government for 1900 were estimated at 87,506,882 marks, or francs, including 23,176,573 marks for postal and telegraph services over previous years and 3,000,000 marks from the reserve fund; and expenditures were made to balance the receipts, 21,554,788 marks being carried over to 1902. Direct taxes yielded 8,353,115 marks of revenue, and indirect taxes 34,055,000 marks. The timber of the Government forests yields a revenue of 3,000,000 marks a year. The expenditure for military purposes was 8,353,115 marks; for civil administration, 10,338,806 marks; for education and worship, 9,489,813 marks; for railroad construction, 12,774,400 marks; for the public debt, 4,971,100 marks. Of the local institutions, and the internal improvement of agriculture, education, etc., the zemstvos recommended for the improvement of agriculture the peasants, equality with other classes before the law, a juster distribution of taxes, the introduction of a better system of land tenure, and the levying of indirect taxes that press most upon the poor and have been doubled in twenty years, the increase of their allotments of land, and the reduction of the protective tariff on industrial products. The zemstvos, whose powers were curtailed in 1890, put in a plea through their members who were on the committees for independence of the requisitions to which they were subjected by officials of the Central Government, for liberty to consult and cooperate among themselves, and in general for reorganization on a democratic basis. Because these suggestions were rejected as outside of the scope of the inquiry one committee dissolved. Other committees reported in favor of increasing the authority and independence of the zemstvos, giving the peasants as well as the landed gentry representation in these bodies, placing funds at their disposal, and consulting them on legislative measures affecting the rural population. To curb the abuse of local governments and other political questions the Government imprisoned or exiled some of the leading members of the provincial and district committees who were responsible for dragging these matters into the reports.

The agricultural production of Finland in 1899 was 50,666 of wheat, 3,962,551 hectoliters of rye, 1,330,192 hectoliters of barley, 5,279,639 hectoliters of oats, 4,924,059 hectoliters of potatoes, 1,430 tons of flax, and 566 tons of hemp. The live stock consisted of 8,486 horses, 1,457,423 cattle, 1,031,185 sheep, 214,606 hogs, 119,917 reindeer, and 9,083 goats. The production of timber in 1898 was 2,348,604 cubic meters. The mineral production in 1900 was 50,600 tons of iron ore, 31,002 tons of pig-iron, 18,324 tons of bar iron. The imports of wheat, flour, and other foodstuffs exceeded 6,000,000 marks in value; of machinery, 16,500,000 marks; of cotton and cotton goods, 15,000,000 marks; of tea, sugar, and coffee, 14,100,000 marks; of iron and iron manufactures, 13,100,000 marks; of woolen goods, 10,700,000 marks; of sugar, 9,100,000 marks.
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Exports of timber were valued at 115,900,000 marks; of butter, 23,700,000 marks; of wood-pulp and cardboard, 21,500,000 marks; of iron and iron manufactures, 12,100,000 marks. The values of imports from and exports to different countries in 1900 were in marks as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>108,500,100</td>
<td>87,100,900</td>
</tr>
<tr>
<td>Germany</td>
<td>89,560,900</td>
<td>15,700,700</td>
</tr>
<tr>
<td>Great Britain</td>
<td>84,140,900</td>
<td>77,720,900</td>
</tr>
<tr>
<td>Denmark</td>
<td>14,785,900</td>
<td>14,895,900</td>
</tr>
<tr>
<td>France</td>
<td>5,820,900</td>
<td>17,380,900</td>
</tr>
<tr>
<td>Sweden and Norway</td>
<td>13,500,900</td>
<td>7,830,900</td>
</tr>
<tr>
<td>Spain</td>
<td>2,920,900</td>
<td>10,000,900</td>
</tr>
<tr>
<td>Other countries</td>
<td>2,800,900</td>
<td>15,150,900</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>487,735,900</strong></td>
<td><strong>197,735,900</strong></td>
</tr>
</tbody>
</table>

There were 8,438 vessels, of 2,017,937 tons, entered at Finnish ports during 1900, and of these 5,705, of 899,007 tons, were Finnish, 706, of 117,534 tons, were Russian, and 1,937, of 1,008,416 tons, were foreign; cleared, 8,562, of 2,040,088 tons, of which 5,901, of 867,535 tons, were Finnish, 717, of 124,771 tons, Russian, and 1,844, of 1,007,551 tons, foreign. The number of vessels that passed through the canals in 1900 was 31,770. The tolls amounted to 618,324 marks, and cost of maintenance of 440,914 marks. The railroad companies sold 4,453,700 tons of freight; gross earnings, 27,890,000 marks; expenses, 20,545,254 marks; cost of construction, 250,190,000 marks. The post-office in 1900 sent 16,579,937 letters and postal cards, 19,010,557 newspapers, 3,190,429 parcels, and 1,254,179 registered letters and packets; receipts, 3,140,067 marks; expenses, 2,577,117 marks.

The Finnish people determined to oppose a passive resistance to all measures conflicting with or calculated to abolish their fundamental laws by refusing to comply with any imperial edicts that infringed on the constitutional right of self-government which the Czar's predecessors had promised to respect. The Finnish Senate, which at first stood up for the ancient laws and liberties after the Czar's edicts and proclamations and decrees after the Russianification of Finland issued from St. Petersburg, and justified on the ground that they dealt only with distribution of land, were dispersed. The Senators deemed it wise to endanger the remaining liberties by engaging in a conflict with the imperial power. The Russian authorities represented that only the Swedish oligarchy stood behind the Nationalist agitation; that the masses of the Finns were convinced of the benefits of a closer union with the empire. The young Finns, nevertheless, were unwilling to serve as Russian conscripts. They preferred to emigrate to the United States and Canada, for which countries 15,000 departed in 1901 and 1,000 were leaving every week in the beginning of 1902 before the conscription. Although the military service edict issued in July, 1901, was not to be applied abruptly, its effect could not be much softened by its gradual introduction. It meant eventually four years in Russian regiments side by side with Russian peasants and under the same harsh discipline, with liability to be called away from family and business for a non-remitting war against the distant frontiers. It was ordered that, until the new district conscription boards were formed, the annual levy should be conducted by boards composed of representatives of both the Russian and the Finnish nationalities that were vouchsafed to the Finns by the Emperor Grand Duke in 1899. The supreme administrative authority, hitherto vested in the Senate, was transferred to the General, who had the power conferred on him to decide any administr
SALVADOR, a republic of Central America. The legislative power is vested in the National Assembly, a single Chamber of 49 members, elected for each annual session by universal adult male suffrage. The President is elected by the direct popular vote for four years. Gen. Tomás Regalado was elected President for the term beginning March 1, 1899. The Cabinet at the beginning of 1902 was composed of the following members: Minister of Foreign Affairs and Justice, Dr. Federico A. Reyes; Minister of the Interior, War, and Marine, Dr. Ruben Rivera; Minister of Charity and Public Instruction, Dr. J. Trigueros; Minister of Finance, Public Credit, and Public Works, Dr. F. A. Novoa.

Area and Population.—The republic has an area of 7,225 square miles. The population according to the census of March 1, 1901, is 1,006,549, comprising 492,953 males and 513,596 females. The number of Indians was 234,540, of Ladinos, or mestizos, 772,200. San Salvador, the capital, had 59,540 inhabitants; Santa Ana, 48,125; San Miguel, 24,708.

Finances.—The revenue in 1900 was $8,593,462 in silver; expenditure, $6,784,874. For the year ending May 1, 1901, the revenue was estimated at $8,965,521 and the expenditure at $10,001,723. For 1902 the estimate of revenue was $5,619,800, of which import and export duties yielded $4,483,500 and excise duties, stamps, and the post-office the remainder; expenditures were estimated at $5,752,115. Of which the public debt takes $2,880,000, war and marine $1,103,440, internal administration $976,856, public works $756,100. The Salvador Railroad Company in 1900 assumed the external debt, amounting to £720,420, giving its own securities on the guarantee of an annual subsidy of £24,000. The internal debt on Jan. 1, 1901, amounted to $2,350,365.

Commerce and Production.—The products are coffee, indigo, sugar, rubber, cotton, dye-stuffs, balsam, and tobacco. Cotton-growers receive a bounty of $1 on every quintal exported. The mines produce gold, silver, copper, quicksilver, and iron. Exports in 1900 were valued at $9,132,958, of which $7,568,339 represent coffee, $938,700 indigo, $295,439 balsam, $129,475 silver, $111,127 tobacco, $89,081 sugar.

Railroads and Telegraphs.—A railroad from the port of Acapulco to Santa Ana was extended to San Salvador in April, 1890. Another railroad runs from San Salvador to Tecala. The company is building new lines in other directions. The telegraphs have 1,550 miles of wire. The number of messages in 1890 was 596,228. The length of telephone-lines is 750 miles.

SAMOA, a group of islands in the Pacific Ocean, formerly a kingdom under the joint protectorate of England, Germany, and the United States, divided between Germany and the United States in 1900 in accordance with the Anglo-German convention of Nov. 14, 1899, to which the United States assented in January, 1900. After the death of King Malietoa Laupepa in 1898 Chief-Justice Chambers decided that Mataafa, being a former rebel, was ineligible to the king-
SAMOA.

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ship, and recognized the claim of Malietoa Tanu-
mallili. Mataafa rebelled on Jan. 1, the day fol-
dowing the signing with Samoa and the powers issued in which his party was in the end victorious and com-
pelled Malietoa Tanumallili to take refuge on a
British cruiser. The German authorities upheld Matafa's rebellion on the ground that the chief justice, who nevertheless reopened court under an escort of British bluejackets. The party of Mataafa plundered the private property of for-
eigneers, and, the fighting and an epidemic conditions con-
continuing, the British and American consuls, from whom the German consul had separated himself, called on the naval forces of their gov-
ernments, and hereafter the military forces of Malietoa that had fled to other islands were brought back
and supplied with arms, and to support them the British and American war-ships bombarded Matafa, and in other places as land parties to destroy their villages and to
fight them in cooperation with Malietoa native.

British and American marines occupied Apia. This justice, the punitive powers were carried
out. Malietoa Tanu was installed as King. The
German cruiser took no part in the conflict. A
Joint Commission of the three powers arrived on
May 13, 1899, and, after restoring order, it came
to the conclusion that the condition of the island
was impracticable and the kingship useless. Consequent-
ly the islands were divided, Great Britain receiv-
ing compensation from Germany in the Solomon
Islands, in Tonga, and in Africa. Before the con-
ventions were concluded for the partition of the
Samoa group the three powers signed a conven-
tion on Nov. 7, 1899, referring claims for com-
ensation made by their citizens to the arbitra-
tion of the King of Norway and Sweden. These
claims were on account of losses suffered in con-
sequence of the military action of officers of the
signatory powers between Jan. 1, 1899, when Ma-
taafa rejected and rebelled against the decision
of the American chief justice, and May 13, 1899,
the date of the arrival of the Joint Commission.
The claims were to be adjusted in conformity
with the principles of international law or
considerations of equity, and the arbitrator was
empowered to decide whether, and to what extent,
any of the time or compensation was due, alone
or jointly, with the others, to make good these
losses. King Oscar laid the matters in dispute before M. Ammerstedt, former Swedish Minister of
Justice; Prince Hagen, formerly Minister of In-
morality, and M. Cederkranz, formerly Chief Justice of Samoa.

In accordance with their views he gave his deci-
sion on Oct. 14, 1902. Claims presented by other
powers were by arrangement brought within the
arbitration. The German Government contended
that the military action taken by British and
American officers was wholly unwarranted, and
that therefore the British and American govern-
ments were responsible for losses caused by their
action to Germans and persons under German
protection. The British and United States gov-
ernments argued that the military action was
necessary and justifiable, and that therefore no
claims were entitled to consideration. They con-
tended that under the general act signed at Ber-
lin on June 14, 1899, any one of the signatory
powers was authorized to enforce the decision of
the chief justice. The Swedish-Norwegian jurists
found nothing in the act giving one or a major-
ity of the signatory authority to enforce its provi-
sions, but on the contrary a provision that nei-
ther of the powers shall exercise any separate
control over the islands or their government.
The military action of the British and Americans
was considered to have the character of a serious
control. The evident intention of the powers
was to establish the principle that in their deal-
ings with Samoa they had a common accord, and this principle was reaffirmed in sup-
plementary agreements of 1892 and 1896, which
permitted the use of a naval force to support the
Supreme Court and the American consul, subject to the unanimous consent of the representatives of
the three powers. The consular representatives of
the three treaty powers had by a proclama-
tion issued on Jan. 4, 1899, recognized Mataafa
and his chiefs as the Provisional Government of
the islands pending instructions from their gov-
ernments, and hence had bound by international good faith to maintain the situa-
tion thereby created until by common accord they otherwise decided. The military action of
the British and Americans tending to overthrow
the Provisional Government can not be justified
either on the plea of the invalidity of the Pro-
visional Government or on that of its estab-
lishment by force. The German consul had
refused to sign a proclamation proposed by the
two other consuls recognizing Malietoa as King
immediately after the chief justice had decided
in favor of his claim, and this refusal was held by the British and American governments to have
been the cause and origin of the civil conflict
that followed. The arbitrator did not find that
the German consul had taken any steps contrary
to the general act, did not consider him bound
to sign the proclamation or support the decision
of the chief justice, and therefore absolved his
Government of responsibility for any conse-
quences of his attitude. The British and Amer-
ican governments contended that, whether there
was authority or not to insist by force on the
acceptance of the provisions of the general act,
the military action was warranted because it
was necessary for the protection of lives and
property, and alleged that firing on Mataafa's
men was not begun until these were moving to
attack the British and American consulates and
threwed Muliniu, where a detachment from
the ships was stationed, with war canoes. The
arbitrator found from the evidence that the sup-
posed movement was not to be considered as an
tention to fleeing women of the Malietoan party
and that the canoes were not going to Muliniu, but
in the opposite direction; nor did it appear that
the general condition of the islands made it nec-
cessary to render military action necessary to protect lives
and property. Before the arrival of the United
States vessel Philadelphia the Malietoans were
completely defeated, deported to distant places,
deprived of their arms, and unable to offer any
resistance to the victorious Matafans. The Uni-
ited States admiral ordered Mataafa away from
Muliniu, and the Malietoans were brought back
together by the British and United States military
authorities; arms that when defeated they had
surrendered to the commander of the British
cruiser were returned to them, and ammunition
was served out to them from the stock kept in
reserve for the Samoa Government, although the
arrangement of 1896 provided that it should be
distributed only by the unanimous consent of
the three consuls. It ought to have been foreseen
that these actions, which can not be considered
to have been justified by any threatening attitude
of the Matafans, was not calculated to deter and
endanger the peace of the country and the
situation created by the surrender of the Male-
toans on Jan. 2 and by the establishment of the
Provisional Government; therefore the British
and United States authorities ought to have
abstained from such proceedings. When British and American forces took possession of the streets of Apia and stopped traffic, demanding a pass before allowing any one to proceed, they infringed the general act, as far as Germans so stopped were concerned, as these were guaranteed the same rights of residence, trade, and personal protection as citizens of the other two powers. The arbitrator decided that the military action, consisting in the bringing back of the Malietoa's, the distribution to them of arms and ammunition, the bombardment, the military operations on shore, and the stopping of street traffic, was unwarranted; and therefore that the British and United States governments were responsible for losses caused by such military action. The extent to which the two governments, or each of them, may be considered responsible for such losses was reserved for a future decision. The action of the German consul and the German president of the municipal council of Apia in repudiating the decision of the chief justice and encouraging the pretensions of Mataafa, although the three consuls had been unanimous in exacting from him as the condition of his return from exile the renunciation of all pretensions to the kingship, was the real cause of the trouble. The German Government disregarding the treaty agreement to abide by the decision of the chief justice in such cases, encouraged Mataafa, although it was on German initiative that this chief, whom the Germans themselves deported in consequence of a former struggle for the kingship, was debarred from becoming a candidate. This sudden change of policy on the part of the German republic, which bore the concord which formerly existed; yet, as it was unaccompanied by force, although private German citizens supplied the Matafaens with weapons, the arbitrator did not hold the German Government responsible for the consequences.

German Samoa.—The German part of the group, embracing all islands lying west of 171° of east longitude, consists of the islands of Soudal and Upolu, and adjacent islets. The former has an area of 660 square miles, the latter 340 square miles. The total population is 30,000, of Polynesian race, mostly clothing, provided by Protestant, Catholic, and Mormon missionaries, but still subject to pagan superstitions. There are about 250 whites and 300 half-breeds. The revenue for 1899 was 441,000 marks, including an imperial contribution of 170,000 marks. The imports are clothing, provisions, kerosene, etc., amounting to about 2,250,000 marks. The exports, valued at 1,875,000 marks in 1899, consist mainly of copra and cacao. The number of vessels that visited the port of Apia in 1900 was 69, of 84,488 tons.

Tutuila.—Tutuila, with Manu and the islets Tau, Olosega, and Ofu, fell to the United States in the division of Samoa. Tutuila has an area of 54 square miles and about 3,800 inhabitants; Manu, 25 square miles, with 2,000 inhabitants. Both islands are hilly and covered with woods. There are about 20 whites and as many half-castes on the islands. The people collect copra for sale to traders and tropical fruits and vegetables for their own consumption. The United States took formal possession on April 17, 1900. The harbor of Pago Pago, the only safe one in Samoa and the largest in the Pacific, was made by naval and coasting station and the residence of the Governor, Capt. Uriel Sebree, in 1902.

SANITARY CONFERENCE, INTERNATIONAL. A conference of the American republics was held in Washington, D. C., on Dec. 3, 4, and 5, in accordance with Article V of the resolution passed on Jan. 29, 1902, by the second International Conference of the American Republics held in the city of Mexico, providing that with in one year a general convention of representatives of the American republics should meet in Washington for the purpose of discussing sanitary matters, recommending the negotiation of sanitary treaties, enacting rules that might be enforced in all countries for the common benefit, and suggesting measures that might be conducive to the fulfilment of the purposes and intents of the conference regarding these questions. The ideas of the conference on this subject are made clear by the report of the committee entrusted with the study of the matter, which was as follows:

"The advance in medical science in America has rendered it necessary that aseptics or sanitation take the place of antiseptics or quarantine. In other words, it is more important to put cities in such sanitary conditions that diseases cannot propagate than to be under the necessity of preventing infection by means of quarantine, which hinders traffic and brings obstacles to commerce.

"The constant increase of common interests in the American republics renders it necessary for the present conference to make recommendations for the improvement of sanitary conditions, in order to attack contagious diseases, and that the restrictions of quarantine, so injurious to all, be substituted by precautions which may do away with the causes of quarantine itself. In this manner not only will its consequence be avoided, but the precious treasury of human life will be preserved. A general system of sanitation will free merchant vessels and railroads from the large expenses which they have to incur on account of the inconveniences of quarantine.

"Strict quarantines, and sometimes prohibitory, have been adopted whenever contagious diseases have appeared in several ports of the Continent, and the losses suffered on that account, as well as the discredit resulting from the existence of such contagious disease, cast upon the places where the disease has appeared, exceed the amount of losses, converted as it is that those ports might have required. And not only do the ports of embarkation suffer for such reasons, but the evil is also felt by the producer and the consumer, whose dependence on each other is so manifest."

The report quotes from several high authorities to support its statements, and then continues:

"The committee, on beginning its labors, carefully studied the project of the Mexican delegation on international sanitary police, preceded by a complete and well-proved study of the question, which tends to establish the fact that the solution of the problem of the prevention of contagion of the principal epidemic diseases has undergone modifications, made necessary by the continued advance of science, and for that reason, as well as in view of the wonderful discoveries made since the first Pan-American Conference of 1890, it appears indispensable to reconsider the recommendations that were approved on that occasion, in order to harmonize them with the requirements of maritime and terrestrial intercommunications and with the progress of science.

"The committee considers the foregoing observations as reasonable; but, with a view to reaching immediate results which unquestionably also call for immediate consideration, adhering
substantially to the conclusions in the project of the honorable delegation of Mexico, proposes the adoption of the following recommendations, which certainly will powerfully contribute to combat the plagues that have afflicted humanity, decimating it at the same time, and always causing restrictions to commercial traffic, obstacles to the progress of passangers, and on not a few occasions acts of real inhumanity, on account of the fear of infectious diseases and of an insufficient and capricious idea as to the way in which they are propagated and the prophylactic measures to combat them.

"The committee is pleased to be able to recognize the efficacious cooperation which it has obtained on the part of Dr. Eduardo Liceaga, president of the Superior Board of Health of the Mexican republic, as also of those of Dr. Wyman, surgeon-general of the Service of the Marine Hospital of the United States, and of Dr. M. J. Rosenau, assistant surgeon and director of the Hygienic Laboratory of the Service of the Marine Hospital of the United States. The reports presented at former conferences and other works of the eminent Peruvian, Dr. D. Francisco Rosas, have been made use of."

Following this report the committee presented its appreciation of the International Sanitary Conference. The project was signed in the form of a resolution by representatives of 15 of the countries represented, the signatures of the Argentine Republic, Brazil, Paraguay, and Venezuela not appearing to the resolution.

In pursuance of the authority granted it by the governing board the International Bureau of American Republics recommended communion with Dr. Walter Wyman, supervising surgeon-general of the Marine-Hospital Service of the United States, who at once prepared a plan of organization and a tentative program. Accordingly, and with arrangements made by the Bureau of American Republics, the conference convened at the New Willard Hotel, in Washington, on Dec. 3, with the following delegates representing their respective countries:

- Guatemala: Dr. Antonio Lazo Arriaga.
- Chile: Dr. Eduardo Moero and Eduardo Garcia Colli.
- Colombia: Mr. John Stewart.
- Salvador: Ernesto Shernikow.
- Mexico: Dr. Eduardo Liceaga and Dr. José Ramirez.
- Nicaragua: Dr. Roman.
- Honduras: N. Bolet Panza.
- Ecuador: Luis Felipe Carbo.
- Cuba: Juan Guiteras and Carlos Finlay.
- Uruguay: Dr. Luis Alberto de Herrera.
- United States: Walter Wyman, surgeon-general, United States Marine-Hospital Service; M. J. Rosenau, director Hygienic Laboratory, United States Marine-Hospital Service; H. L. E. Johnson, American Medical Association, chairman Legislative Committee; James Taggart Priestly, Des Moines, Iowa, surgeon-general Iowa National Guard; Arthur K. Reynolds, Chicago, Ill., Commissioner of Health; Charles B. Adams, Sac City, Iowa, member State Board of Health; Edmond Souchon, New Orleans, president Louisiana State Board of Health; Fred. W. Powers, Reinbeck, Iowa, member State Board of Health; Joseph Porter, Jacksonville, Fla., state health officer of Florida; Alvan H. Doty, New York, New York state quarantine officer of the port of New York; L. M. Powers, Los Angeles, Cal., health officer; Frank William Porterfield, Atlantic City, Iowa, ex-president Medical Society of Missouri Valley; Walter D. McCaw; George P. Bradley, United States navy, representative medical department of the navy.

Dr. Walter Wyman made an opening address at the morning session, welcoming the delegates to the city. He spoke of the International Conference held in Mexico as marking an era in the progress of civilization in the new hemisphere, in providing for an international conference on customs, a conference for the study of coffee production, and this one for the study of international sanitation and quarantine. "No topics are of greater importance," said he, "than those which will be considered by this conference, for protection against the inroads of disease and the providing of such environments of man as will enable him to cultivate the highest standard of health are the bases of our physical welfare and enjoyment, as well as our intellectual enjoyment and moral uplifting. Health, cleanliness, intellect, and morals might well be the motto of this conference."

Secretary of the Treasury Shaw said, in the course of a welcoming address, that he remembered very well the time when a lawyer was considered great when he succeeded in extricating his client from complications and difficult situations after he had got into trouble; but the successful lawyer now is the one who prevents his client from getting into trouble. It was a time when the physician's principal ambition was to cure the individual case of disease, and little attention was paid to its spread among others; but now the physician endeavors to prevent others from the epidemic as well as to cure the case in hand.

David J. Hill, Assistant Secretary of State, extended a cordial greeting from the Department of State. "When the first conference between the American republics was proposed," he said, "fears were expressed that it would never come to pass; but those fears have now been dispelled, and benefits are already apparent. What we need between these republics is a closer contact, a mingling with one another in the discussion of questions of mutual vital importance. I am glad to see that the conference held in the city of Mexico has already borne fruit, and that such meetings as this are to be continued."

Señor Quevedo, minister and delegate for Cuba, spoke with much warmth of the part the United States had taken in bringing about better sanitation in Cuba, and paid tribute to Gen. Wood, recent Military Governor of Cuba, and to the late Major Walter Reed, for his part in driving the yellow-fever scourge from that island. The Mexican ambassador, Don Manuel de Azpilicos, also made a felicitous address. Brief speeches were made by Major W. P. McCall, representing the United States army, and Medical Director George P. Bradley, of the United States navy.

When the conference proceeded to business, Dr. Ulloa, of Costa Rica, being elected temporary chairman, a committee on organization was appointed, and Dr. Walter Wyman was elected president, with a delegate from each of the countries represented as vice-president. Dr. Arthur K. Reynolds was elected secretary, and an advisory council was appointed, consisting of Dr. Rhett Goode, of the United States; Dr. M. J. Rosenau, of the United States; Dr. Juan Gutierrez, of Cuba; Dr. E. Liceaga, of Mexico; Major Walter D. McCaw, United States; and Dr. Ulloa, of Costa Rica. The committee on the proposed International Sanitary Bureau be composed of 5 members, 1 of whom should be the president of the conference, the other 4 to be nominated to the conference by the advisory council.
The second day's session of the conference was devoted largely during the morning session to hearing reports from Dr. Juan Gutieras, of the sanitary department of Havana, Cuba, described the methods employed in Cuba for preventing the spread of yellow fever. He said that there had not been a case of yellow fever in Cuba that had originated there in four months, an unprecedented record. He declared his implicit belief that yellow fever is spread through the agency of the mosquito, and that the most necessary precaution to prevent contagion was to keep the afflicted patient away from the insect. He said that several cases of yellow fever had been imported from Mexican ports and treated in Cuba recently. The patients were put under mosquito-netting from the time of landing until they were well. Although other patients, non-immune, were exposed, being put but a few feet away in the hospital, there was no spreading of the disease.

Dr. Charles J. Finlay, chief sanitary officer of Cuba, described the arrangements for sanitary work in Cuba; and Dr. Eduardo Moore, of Chile, told of sanitary methods in his country, and extended an invitation to the conference to meet in Chile the next year. The day of the resolution spoken of conditions in Costa Rica, which, he said, was quite free from contagious diseases. He declared that the restriction placed upon products from Costa Rica by the government were unjust, as the imports were not a menace to the health of the citizens of that port. The plan of organization of the sanitary office of Mexico, that there were discussions by Dr. Eduardo Liceaga, president of the Superior Board of Health of Mexico, and he also invited the conference to hold its next meeting at the city of Mexico.

Dr. Wyman told of sanitary conditions in the United States, and said that, by the provisions of the act of Congress at its last session, providing for changing the Marine-Hospital Service into a board of health, thus adding to its functions, the national board of health was brought into closer relations with the State boards. He mentioned that the system of the health of foreign ports, and spoke of the benefits accruing from the plan.

Dr. Roseau, of the United States, gave a brief résumé of recent yellow fever epidemics in this country in recent years, and in speaking of the various epidemics, said there had been no great epidemic of yellow fever in this country since 1878-79, but that several local epidemics had been recorded. Smallpox, malaria, cholera, and typhus fever were growing milder, and were coming to be less feared. Dr. Arthur K. Reynolds, of Chicago, reported on the conditions in the North-west and spoke for the necessity of uniform quarantine regulations, not only between the national and State boards, but between the boards of the United States and Canada.

Quarantining of vessels from infected ports having on board yellow fever, cholera, or bubonic plague was discussed at length at the afternoon session. The subject was introduced in a paper by Dr. Eduardo Liceaga, and the discussion was principally on the question whether five days was long enough for detention of persons suspected of having yellow fever. Some of the delegates favored ten days, and the subject was finally referred to the advisory council, which presented a resolution for the detention of suspected cases of yellow fever and cholera for five days, and the ships carrying them for ten days.

Dr. Edmond Souchon, president of the Board of Health of Louisiana, read a paper, which was discussed at length, on maritime quarantine without detention of vessels from ports quarantined against yellow fever. He said: "The key-note of this stride in modern scientific quarantine was struck by the Louisiana State Board of Health when it passed, on Sept. 2, 1902, the resolution that reads: 'Free pratique shall be given to non-infected vessels, with or without passengers, from ports where yellow fever is suspected or prevalent, provided said vessels are distant from the port of departure, or at the last port touched at, in a manner satisfactory to the Louisiana State Board of Health; provided, further, that said vessels upon arriving at the Mississippi river quarantine station shall be disinfected again, and provided still further that five full days shall have expired since the completion of the first disinfection before the necessary disinfec tion is done at the Mississippi river quarantine station.' These regulations are based upon the study, mostly, of the records of the Louisiana State Board of Health, which show that the number of non-infected vessels have developed yellow fever after a first disinfection."

At the closing session of the conference, on the afternoon of the third day, the delegates paid to the subject of attention, and several resolutions bearing upon the subject of infection from the insect were discussed. Dr. Gutieras, of Cuba, presented a resolution to the effect that the New Orleans Board of Health adopted, the only known case of yellow-fever infection, which, after some modification, was adopted. Dr. Arthur K. Reynolds, of Chicago, offered the resolution to the effect that the various governments in their respective territories the geographical distribution of the mosquito of the genus Stegomyia, in order that said study may have practical application in subsequent conventions. Another resolution offered by Dr. Reynolds was to the effect that bubonic plague and other diseases are spread by rats, mice, and other lower animals, which to a great extent find sustenance in animal and vegetable kitchen wastes, commonly called garbage, and that all organic waste or garbage should be kept separately on the premises until it can be removed or mixed with a disinfectant or destroyed. He said that, in view of the fact that typhoid fever and Asiatic cholera would cease to be a menace to the world.

Papers were read on Simplicity in Sanitary Measures, by Dr. Joseph Y. Porter, State health officer of Florida; Vessels as Carriers of Mosquitoes, by Dr. S. B. Grubbs, Marine-Hospital Service; and Uninariasis with Microscopic Demonstration, by Dr. Charles W. Sollen, Marine-Hospital Service. Regarding this parasite, popularly known as the hookworm, Dr. Stiles made the interesting statement that it was responsible for the condition of the soil on the arid sand districts of the South. The presence of the hookworm, he said, was the cause of their poor physical and mental state, the parasite in the human system producing a condition of extreme anemia, similar in its symptoms to a severe attack of malaria, and that any generation of people placed under these conditions must deteriorate. The construction of the fortresses of the South was not due so much to the work as to the effect produced upon the system by this noxious hookworm. Its eradication, he declared, was the only means for obtaining about better conditions among these people.
SANTO DOMINGO.

Resolutions were adopted recommending that the International Sanitary Bureau urge each republic in the District of Columbia to furnish, promptly and regularly, all data of every character relative to the sanitary conditions of their respective ports and territories, and to furnish said bureau with every opportunity and aid for a thorough, careful, and scientific study and investigation of any outbreaks of pestilential diseases that may occur within their territories. It was further recommended that the International Sanitary Bureau lend its best aid and experience toward the widest possible protection of the public health of each of the said republics, in order that disease may be eliminated, and that commerce between the republics may be facilitated, and to encourage and aid or enforce, in all proper ways, the sanitation of seaports, including the sanitary improvement of harbors, sewers, drainage of the soil, paving, elimination of infection from buildings, and the destruction of mosquitos and other vermin.

Santiago de Chile was selected as the place of meeting for the next conference, which is to begin March 15, 1904. Dr. Eduardo Moore, one of the Chilean delegates, thanked the conference for its choice, and assured President Roosevelt that all Chile would welcome them. He said that a hygienic exhibition would be held in Santiago upon the convening of the conference, and he was assured that the President of the South American republics would be large. Short speeches were made by the representatives of the other republics, and the session was closed by tendering a vote of thanks to the President, to whom was presented the symbolic key of the salt mountain.

The details of all the arrangements were under the auspices of the Bureau of American Republics, and were successfully carried out under the direction of W. C. Fox, Chief Clerk of the bureau, and Dr. H. D. Geddings, of the hospital service.

SANTO DOMINGO, a republic in the West Indies, occupying the eastern part of the island of Haiti, or Santo Domingo. The Congress is a single chamber of 24 members. The President is chosen by an electoral college for four years. Gen. Juan I. Jimenez was elected President and Horacio V. Tavera Senator, for four years ending in 1903. The Cabinet at the beginning of 1902 consisted of the following members: Secretary of the Interior and Police, Gen. M. U. Gomez; Secretary of Agricultures, M. J. Carvajal; Secretary of Justice and Public Instruction, G. Perez; Secretary of Fomento and Public Works, F. Despradel; Secretary of Finance and Commerce, E. Brache; Secretary of Posts and Telegraphs, Eliseo Grullon; Secretary of War and Marine, Gen. Rafael Rodriguez.

Area and Population.—The area of the republic is estimated at 18,048 square miles; the population, mostly of mixed Spanish, negro, and Indian blood, is 610,00. Santo Domingo, the capital, has about 20,000 inhabitants.

Finances.—The customs revenue in 1899 was $1,529,003, and in 1900 it was $2,392,002. Duties have been collected from both imports and exports, and they formed the bulk of the revenue. Export duties were abolished on May 1, 1901, and import duties were reduced. The total revenue and expenditure for 1902 was reckoned at $1,238,440.

The foreign debt, converted in 1897, consists of $2,738,750 in 7 per cent. bonds and $2,500,000 of 4 per cent. bonds and a railroad loan of $500,000. The bonds were secured on the customs and other assigned duties, the collection of which was entrusted to the United States. The sum of $1,241,963, the first installment of the foreign debt, was paid in 1895 and 2,161,963 in 1896. The population of the United States is 1,262,825 males and 1,211,145 females in 1900. Belt.

and a dispute having arisen between the company and the new President, the Government took the collection of revenue in the District of Columbia as a pledge of the amount of foreign debt outstanding in 1901 amounting, with arrears of interest, to £2,188,362; internal debt, £2,945,550 in gold and £10,126,629 in silver.

Commerce and Production.—The value of imports in 1900 was $5,233,000, and that of exports $6,006,000 in gold. The export of sugar was $3,571 tons; of coffee, 3,952,000 pounds; of cacao, 11,231,000 pounds; of bananas, 386,000 banches; of mahogany, 665,951 feet; of logwood, 2,234 tons; of tobacco, 9,896 tons. Hides, beeswax, rum, and divi-divi are also exported. The chief imports are cotton goods, provisions, and hardware.

The number of vessels that visited Dominican ports in 1900 was 544 entered and 380 cleared.

Railroads and Telegraphs.—There are 116 miles of railroad in operation, consisting of the line from Samana Bay to La Vega, 62 miles, which is being continued to Santiago. One is to be built from Barahama to the salt mountain.

The telegraph had a length in 1901 of 430 miles, connecting with the French cable. New lines in the interior were projected.

Revolution.—A uprising against President Jimenez was successful in all parts of the country. On May 2, 1902, the capital surrendered and the President took refuge in the French consulate. Fernandez signed a document resigning the presidency, which was assumed by Horacio Vasquez, the Vice-President. All adherents of the fallen Government were arrested. The country was secured by the American troops.

The new provisional Government, with Vasquez as President, was constituted on April 7 as follows: Minister of the Interior, Casimiro Cordero; Minister of Foreign Affairs, Señor Sanchez; Minister of Finance, Señor Teiera; Minister of War and Marine, Gen. Pichardo; Minister of Justice, Cabral Baz; Minister of Posts and Telegraphs, Justino Castillo.

SERVIA, a monarchy in southeastern Europe. The legislative power, according to the new Constitution proclaimed by the King on April 19, 1900, is vested in the National Assembly. The Senate consists of the heir to the throne, the Archbishop of Belgrade, the Bishop of Nish, 30 members appointed for life by the King, and 130 members elected for six years by the departments. The King has 30 members elected for four years by all adult male Servians who pay 15 dinars in direct taxes excepting soldiers in active service. The reigning King is Alexander I, born Aug. 14, 1876, who succeeded to the throne on the abdication of his father, Milan I, March 6, 1889, and on April 13, 1893, dismissed the regents and assumed in person the royal powers. The ministry at the beginning of 1902 was composed as follows: President of the Council and Minister of Foreign Affairs, Dr. Michael V. Vukic; Minister of Public Works, P. Velmirovich; Minister of Public Instruction and Worship, L. Kovachevich; Minister of Commerce, Agriculture, and Industry, Dr. M. Milanovich; Minister of Finance, Dr. Michael M. Popovich; Minister of the Interior, N. Stefanovich; Minister of Justice, D. Stamenkovich; Minister of War, Gen. T. Miljkovich.

Area and Population.—Serbia has an area of 18,630 square miles. The population, according to the provisional results of the census of Dec. 31, 1900, is 2,493,770, compared with 2,312,484 in 1890 and 1,985 and 2,161,963 in 1896. The population of Belgrade, the capital, had 99,079 inhabitants; Nish,
The number of marriages in 1900 was 31,451; of births, 40,744,772; of deaths, 58,034; excess of births, 46,738.

Finances.—The revenue for 1901 was estimated at 74,019,070 dinars, or francs, and the expenditure 13,902,543 dinars. Of the revenue 28,220,000 dinars came from direct taxation, 6,330,400 dinars from customs, 4,380,000 dinars from excise taxes, 3,300,000 dinars from other taxes, 20,148,970 dinars from monopolies, 9,406,500 dinars from public works, and 2,046,200 dinars from various sources.

Of the expenditures 1,200,000 dinars went for the civil list of the King, 20,006,150 dinars for public debt interest, 1,560,000 dinars for stipends, 454,310 dinars for the National Assembly, 406,500 dinars for general credits, 2,950,365 dinars for pensions, 1,792,228 dinars for the Ministry of Justice, 6,715 dinars for the Ministry of Foreign Affairs, 9,246,899 dinars for the Ministry of Finance, 17,802,700 dinars for the Ministry of War, 3,401,031 dinars for the Ministry of Public Instruction and Worship, 5,588,929 dinars for the Ministry of the Interior, 8,944,547 dinars for the Ministry of Public Works, 1,486,547 dinars for the Ministry of Commerce and Agriculture, and 369,362 dinars for the Court of Account. For the budget for 1902 the revenue was estimated at 72,845,081 dinars, expenditure at 72,816,047. The charge for the public debt was 19,422,000 dinars. Ordinary expenditure was reduced 17,464,856 dinars, extraordinary expenditure 2,120,424 dinars, and for the first time all was included in the ordinary budget and receipts were calculated on actual collections, the average for three years, not on assessments, which have proved illusory owing to heavy losses from uncollected arrears and remissions. A deficit of 4,645,099 dinars was expected in 1902.

The amount of the public debt on Jan. 1, 1901, was 422,402,984 dinars, of which 351,551,903 dinars consisted of the conversion loan of 1895, bearing 4 per cent. interest, 29,085,000 dinars of the lottery loan of 1891, 9,586,000 dinars of a loan raised in 1886, 9,535,000 dinars of a loan secured on the tobacco monopoly, 9,285,184 dinars of a loan obtained from the national bank, 3,750,000 dinars of a Russian loan, and 10,420,000 dinars of a loan raised at 5 per cent. in 1899. The floating debt in the middle of 1902 was 36,748,055 dinars.

The Army.—The law of Jan. 27, 1901, makes military service obligatory, lasting two years in active service from the age of twenty, nine years in the reserve, and six years in the first and eight in the second ban of the national military. The effect provided for in the budget of 1901 was 661 officers and 14,000 men in the infantry, 101 officers and 1,400 men in the cavalry, 270 officers and 4,000 men in the artillery, 65 officers and 1,000 men in the engineers, 102 officers and 300 men in the train, 49 officers and 500 men in the sanitary corps, 68 administrative employees and 24 officers on the staff, total, 1,248 officers and 21,200 men, with 4,846 and 192 field-guns. In case of mobilization the active army and its reserves can furnish 110,245 men embodied in 5 divisions; 14,894 cavalry, engineers, fortress-artillery, etc., outside the divisions; and 33,845 depot troops, making a total of 180,752 men, in addition to whom the first ban can muster 128,610 and the second 66,005 men.

Railroads, Posts, and Telegraphs.—The Belgrade, Nish, and Vranja Railroad with its branches has a length of 356 miles. The cost was 105,347,724 dinars; gross earnings in 1899 were 6,397,709 dinars, and in 1900 they were 6,776,824 dinars. A new line from Nish to Kladovo, to enter Roumania by means of a bridge over the Danube, has been authorized; also one from Nish to the Turkish frontier, to be continued through Albania. The former is to be prolonged to the Adriatic through Montenegro, forming part of a scheme for a Suez railroad. Lines are being constructed from Parachin to Zachar and from Krushevats to Stalac.

The length of telegraph lines on Jan. 1, 1901, was 2,550 miles, with 6,170 miles of wire. The number of despatches in 1900 was 1,073,435.

The post-office carried 18,211,000 letters in 1900. The receipts, including telegraph receipts, were 2,250,000; expenses, 1,408,150 dinars.

Political Affairs.—The Cabinet of Dr. Vuich was a combination of Moderate Radical and Progressist elements. It introduced economies in the budget, yet was not able to overcome the financial difficulties, and expenditures of the government have increased from 20,000,000 dinars in 1880 to over 72,000,000 dinars, and receipts have
not kept pace. The deficits in the ordinary budgets in twenty years amounted to 100,000,000 dinars, which was an enormous sum. After the unification of the debt in 1895, it was hoped that an equilibrium would be maintained. The debt, however, continued to increase and the terms on which it was obtained grew more onerous. A foreign loan was absolutely necessary to clear the floating debt, and one of 90,000,000 francs at 5 per cent. was sought in Paris, but no better terms than 7½ could be obtained. On March 19, the Skupština, having approved a bill offered by the independent Radical leader to make officials irremovable except for cause and prevent a general change by each incoming Cabinet, the ministers offered their resignations, but the King declined to accept them and the Skupština passed a vote of confidence. On April 8 Dr. Popovich resigned his post. On May 15 the entire Cabinet resigned, and Nikola Pasic, former Radical leader, was entrusted with the formation of a new ministry. The Skupština was dissatisfied with the terms on which the new loan was arranged. The attempt to form a Radical Cabinet having failed, Dr. Vuich was asked to organize a new one, which was constituted on May 16. President of the Council and Minister of Foreign Affairs, Dr. Michael Vuich; Minister of Finance, Dr. Mika Popovich; Minister of Public Instruction and Worship, Dragotin Stefanovich; Minister of War, Lieut.-Col. Basil Antonich; Minister of the Interior, Nikola Stefanovich; Minister of Public Works, Peter Velimirovich; Minister of Justice, Aton Ninkovich; Vice-Minister of Commerce, Giros Ninkovich. The Cabinet was composed of 4 Radicals, 3 Progressivists, and 1 Independent. A loan of 60,000,000 dinars at 5 per cent., redeemable in fifty years, was placed in Paris at the issue price of 75 and approved by the Skupština in August, although a syndicate seeking the privilege of establishing a gambling casino offered to lend at 50. The Government received no ready money from the loan, but cleared off all floating obligations. On Oct. 14 the Vuich ministry resigned.

The King was not popular. The people resented the custom and information of buying and granting in great part from the Cabinet, and the King was not popular. In April a great many students were punished for a manifestation in favor of liberty of meeting and association. Early in the summer the police of the old regime made attempts to stir up a rebellion against the King. Letters were sent to the officers of the army telling them to prepare for a change of dynasty. On March 5 a political exile living in Austrian Mitrovitsa, a former lieutenant named Radomir Alavantich, crossed the Save into Servia, donned the uniform of a Servian general, enlisted and armed some professional smugglers, ordered the frontier guards and custom-house officials at the river stations to follow him, and was obeyed, entered Shabats, ordered the firemen to join his band, proceeded to the prefecture and commanded the gendarmes to fall in. A few objects, but were quieted by threats, and the doors were locked to prevent any person from escaping. Two gendarmes who recognized the adventurer as a political conspirator who had been convicted for participating in the plot to kill King Milan got out through a window and informed commanding officer, Capt. Niclich, who hastened to the prefecture and called upon the impostor to explain his actions. Alavantich answered with a pistol shot which wounds him and his antagonist by a shot in the leg and ordered the gendarmes to despatch him. Alavantich had about 80 men under his orders when killed. The firemen and the frontier guards were condemned to prison for five years, and the rest got off with very little punishment. The Albanians took an active part in the Macedonian disturbances, which were largely directed against the Servian nationality by the Bulgarian agitators. Many persons of Servian race fell victims to Albanian lawlessness, and on this account Russia established a consulate in Albania. The long-deferred consecration of the Servian Bishop Firimilian as metropolitan of the Greek patriarchate in Uskub was allowed by the Porte to take place in April under pressure from Russia, although it was bitterly opposed by the Bulgarians, who asserted that only a sixth of the Christians there were of Servian nationality and another sixth Bulgarians and Greeks of the Greek Church, while two-thirds were Bulgarians of the exarchate, who have their own bishop in Uskub.

A new Cabinet was formed on Nov. 20 as follows: President of the Council, Gen. Zinzar Markovich; Minister of War, Gen. Milovan Pavlovich; Minister of the Interior, Nikola Velimirovich; Minister of Finance, Miloran Marinovich; Minister of Public Works, Paul Denich; Minister of Commerce, Lubomir Novakovich; Minister of Public Instruction and Worship, Giros Ninkovich; Vice Minister of Foreign Affairs, Lieut.-Col. Vaffe Eutonich. The Skupština was prorogued the same day. The head of the new Cabinet, who had been in favor with King Milan, was appointed commander-in-chief of the army earlier in the year. The chief task which King Alexander set before this ministry was a revision of the Constitution.

SHIP-BUILDING IN SERVIA. So far as is ascertainable in view of the divergence between the calendar years and the fiscal years of the maritime nations, the total shipping tonnage finished, under construction, or so far advanced toward completion as to justify mention, amounted in round numbers to about 3,000,000 tons. This shows a slight gain over the preceding year. The British ship-builders of course lead the list by an overwhelming surplus. The new construction in the United Kingdom during the year was not far from 1,700,000 tons, or more than 90 per cent. of the world's production. By the old Constitution in Servia, the industry rather more than would have been the case naturally.

While the vast preponderance of modern construction is in the direction of steel-built steamers of heavy tonnage, there is a marked tendency, particularly in Great Britain and the United States, toward an increase of the proportion of sailing vessels. In this respect Germany leads the record for Europe with a five-masted, full-rigged ship of 5,000 tons; but the American seven-masted schooner, described hereafter, exceeds this by 138 tons. In British yards the proportion of sailing ships in 1902 was 5.5 per cent. of the whole output. The preponderating tendency is toward larger and faster ocean steamers. The Kaiser Wilhelm II, the latest accession to the German Atlantic fleet, was built at the same yard by the same firm that has constructed the rest of the great German liners, which at this time held the
SHIP-BUILDING IN 1903.

record for transatlantic speed. This great ves-
sel is constructed in the usual way, with a
double boiler-room, 4 separate decks, and 16 bulk-
heads extending from the keel to the upper deck.
They are reenforced by a longitudinal bulkhead
extending the whole length of the 2 engine-
rooms forming the promenade between them,
flush with the upper edge of the ship's plating is a spar-deck carrying a deck-
house amidships 49 feet 10 inches long and 44 feet low by
and an after-house 79 feet long. The roof of the
deck-house affords a promenade 538 feet long,
and above this is an upper promenade deck,
and above this again a boat-deck.
The length of the Kaiser Wilhelm II over all is
7064 feet; breadth, 72 feet; molded depth, 44 feet
2 inches; and displacement, 26,000 tons. This
makes her 23 feet longer than the Oceanic,
3 feet narrower than the Cedric, and about
1,000 tons less displacement than the last-
named vessel. Her estimated speed is 24 knots
an hour—that is to say, about 27 statute miles,
very much faster than her speediest sisters in the
Atlantic trade. She has accommodations for
775 passengers in the first cabin, 343 in the sec-
ond, and 710 in the third. Her ship's company
includes 546 officers, 335 engineers, 142 clerks,
170 stewards and waiters, 61 cooks, and 46 sailormen.
In her equipment are included the various
novelties, such as a children's saloon and a cofeé
and grill-room on the upper deck, while the first-
class dining-room exceeds in size the most spacious
and luxurious of those that have heretofore dis-
luxuriously the transatlantic travel.

The two engines that have in existence
prior to this could develop under favorable condi-
tions 38,000 horse-power, but it was determined to
make the Kaiser Wilhelm II the fastest vessel
afloat, which, with her increased size, called for
engines capable of producing 40,000 horse-power
as called for by the contract, which means con-
siderably more in actual service. Such enormous
power could hardly be developed by the two en-
gines that have been found sufficient in previous
cases. It was therefore determined to use four en-
gines, two on each side of the main bulkhead,
and these were arranged so that, instead of being
“tandem,” or coupled in pairs to the separate
shafts. There is, therefore, in each engine-room a
complete four-cylinder, quadruple-expansion en-
geine of the ‘supreme’ type, with the two cranks to secure the great-
est efficiency. The common stroke of the four
cylinders is 70.8 inches, and the crank-shaft of the
forward engine is 20.87 inches in diameter;
that of the after-engine is 22 inches. Each en-
gine has its own individual condenser, contain-
ing 11,732 square feet of cooling surface. The
two screw propellers are of bronze, 22 feet 8
inches in diameter. The idea of using three screw
propellers to attain greater speed has been aban-
don by common consent, and was therefore
not considered in preparing the plans for this
greatest of ocean-liners. The reason is, that when
three propeller-screws are in operation two of them
do all the work, since they so effectually turn the
water into foam that the third screw has nothing
to push against.
The Kaiser Wilhelm II has in all 19 sep-
ate boilers, 3 double-enders in the first boiler-
room, and in the second 3 double-enders and 3 single-
ended boilers, one single-ended boiler being al-
lotted to the third boiler-room, while in the for-
ward room of the four there are 3 double-ended
and 1 single-ended boiler. This arrangement
was made in order to facilitate the deliver-
y of coal from the bunkers; the boiler pres-
sure is adapted to 225 pounds to the square
inch. The total grate area is 3,121 square feet,
and the total heating surface 107,543 square feet,
an area believed to be unprecedented in steam
service of this character.

According to published statements, there is a
natural prejudice on the part of English against the use of forced draft, of which English
and Americans are disposed to make use perhaps
rather in excess; at all events, the great engines
of the Kaiser Wilhelm II will be driven entirely
by natural draft, which accounts for the neces-
sity of extraordinarily large space for boiler-room
and for the heating surfaces. It is probable,
therefore, that she will in practise handsomely ex-
ceed her contract power, and though it is too early
as yet to speak from actual figures, it is expected
that she will develop certainly 45,000 and possi-
bly 47,000 horse-power and attain a speed of per-
haps 243 knots.

While it is not strictly within the domain of
ship-building, the problem of provisioning these
great passenger-carriers for their ocean voyages
is certainly germane to the subject, and though
the description of supplies in pounds does not con-
voy a very definite idea to the average mind, still
it may be said that one of the great liners re-
quires for a single voyage 100,000 pounds of
meat, divided about half and half between the
salt and fresh varieties. The poultry for the
same voyage weighs nearly 6,000 pounds; while
beans, peas, rice, vegetables, and, on German ships,
sauerkraut, reach about 25,000 pounds. Of eggs
about 2,000 dozen are required, usually packed in
cases of 30 dozen each. The bakers use more than
30,000 pounds of flour in the single voyage, and
large quantities of fresh and salt fish are required
to meet the views of those who fast on a Friday
or who otherwise desire sea food for a change of
diet. More than 6,000 pounds of butter are re-
quired, and fresh fruit to the amount of
11,000 pounds is often carried. In the matter of bever-
ages, water, of course, heads the list, and several
hundred tons of fresh water are habitually car-
rried, besides that which is produced from day to
day by the condensers. Canned milk is required
to the amount of about 1,900 gallons, and of
beers, wines, and also other supplies of per-
sonal belief. It has been estimated that if one receptacle
were constructed capable of containing all these
liquids in bulk, its height would be more than 24
feet and its diameter about 10 feet. Of course,
water in bulk is an important item, as well for the preserva-
tion of fresh meats, etc., as for other purposes,
and the larger liners usually begin their voyages
with about thirty-five tons of ice ready for use;
this, however, would be a mere trifle of the amount
actually required during the voyage, and the re-
mainder is made good by the refrigerating ma-
cines, which supplement the actual supply re-
quired at the outset.

One of the most interesting and promising de-
vices introduced in recent years has been the tur-
bine principle of propulsion as applied to yachts
and other vessels, for the most part as yet in
British waters. It has been said that the use of
three screw propellers in the ordinary accept-
ance of the term has been found impracticable,
but with the turbine plan of propulsion it is pos-
sible to use smaller screws at greater distances
apart, to the number of six, two being carried
astern near the rudder, being allotted to each
of the separate shafts under each counter of the vessel. The or-
iginal Turbinia had nine screws, and she was for a
while the fastest vessel of any kind in the world.
The passenger state the turbine-driven vessel afsoat. Her length is 270 feet; beam, 32 feet;
SHIP-BUILDING IN 1902.

of oil in a tank a sea-cock may be opened, the oil run out, and the compartment almost instantly filled with steam. Indeed, the entire hold can be filled with steam under pressure, which instantly extinguishes any fire.

The project of detailing these vessels for double duty, in carrying oil in one direction and bringing back miscellaneous freight in another, infringes very seriously upon what other freight-carriers regard as their special rights, and it may account to a very large extent for the low and often unremunerative rates that prevail on certain trans-oceanic routes. That this is one of the hardships of legitimate competition can hardly be denied, but the ultimate result is probably in favor of the general public, however it may incidentally favor the trust or other association that at present controls its interests.

The probable development of vast American interests on the Pacific Ocean has led to the construction of two great freight-ships for that trade. It is a singular feature of modern construction that it seems possible to install a plant for this kind of work at short notice and in places where nothing of the kind previously existed. In this instance the harbor of New London, Conn., was selected. Another instance is the Fore River Works, near Boston, Mass., which James J. Hill is reported to have in view. These vessels represent the most advanced modern construction. They are 630 feet long and 73 feet wide, with a molded depth of 56 feet. A maximum displacement of 363,200 tons is contemplated, and with that draft the displacement will be 37,000 tons. In extreme dimensions the New London ships are somewhat less than the Celtic and the Cedric, but they are deeper by several feet, so that their displacement nearly equals that of the longer and wider White Star boats.

While these vessels are not intended to attain a high rate of speed, compared with the ocean greyhounds, they are fitted with ample accommodation for passengers and will offer exceptional advantages in some respects from the great height of the promenade deck where the passengers are fully loaded, the navigating bridge will be 57 feet above the water-line, and when it is running light and drawing only 17 feet of water, as may sometimes be the case in calm weather, the fore and main masts will be 73 feet above the water-line and the upper promenade deck will be 65 feet above the same level. Quarters are provided for 100 first-cabin passengers, 100 second-cabin passengers, 100 third-cabin, and 1,000 steerage. There are also spaces that may be adapted for transportation of troops to the number of 1,200; this, of course, in view of the Government transport service to our recently acquired Oriental possessions.

Notwithstanding the vast preponderance of steam construction for traffic on the high seas, there are those who still retain faith in canvas and the winds of heaven for certain spheres of navigation. The latest exponents of these ideas are found in the seven-masted schooner Thomas W. Lawson and the square-rigged five-masted ship Preussen. It goes without saying that the first-named is American in design and construction, and the second European. The Lawson was built at the Fore River with all modern appliances of electric lights and quarters for the officers and crew, which compare favorably with those of anything afloat. Of course extraordinary precautions must be taken against fire from the electric wires, but even in case of the ignition

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Several fanciful suggestions were made for the naming of the seven masts, but the following was sensibly decided upon as good seagoing form, to wit: Fore, main, mizzen, spunker, jigger, driver, and pusher.

There can hardly be two opinions regarding the appearance of the two vessels under full sail. The ship is beyond question the most stately and beautiful; but the champions of the square rig, on the one hand, and of the fore-and-aft rig on the other, can never be brought to amicable agreement. The square-rigger holds, with good reason, that his craft is the better of the two with a fair wind. The fore-and-aft, with equally good reason, declares that his rig is by far the best going to windward, and he will by no means admit that it can be so very much outsailed running free. In the matter of ease and simplicity of handling, the schooner is far superior; and in regard to passenger carrying capacities, about half those of the ship. Both vessels are fitted with donkey-engines and all modern conveniences.

The Lawaton built of steel, with the exception of deck and cabin furnishings. Her lower masts are steel, binders 135 feet long, and her topmasts, of Oregon pine, 55 feet long. She spreads 43,000 square feet of canvas with all plain sail set. The sail-spread of the Persian is 80,000 square yards. The expense of this, but exact figures are not at hand. The Lawaton has given a good account of herself in actual service, and at present holds first place in the matter of carrying large cargoes at small expense. The revival of sailing craft will restor in some degree the romance of a seagoing life, which has been largely destroyed by the prosaic mechanics of steam navigation.

The Young America, a full-rigged sailing ship with auxiliary steam power, is now building, with the intention of fitting her out as a preparatory school for boys, where they may be fitted for college and at the same time may see the world and be subjected to wholesome naval discipline under highly favorable conditions.

SIAM.

A kingdom in Southern Asia, The King is advised by a Cabinet, called the Senabodi, composed mostly of his half-brothers and sons, each of whom is advised by a foreign expert except the heads of the army and navy. A Legislative Council was created in 1880, containing in 1902, besides the 10 ministers, 45 nominated members. It has authority to amend and complete the laws with the approval of the King. Many new laws have been made after European models, but the actual administration of the country by corrupt and oppressive local mandarins has not changed. The industries and local trade have passed into the hands of Chinese, while Europeans have introduced enterprises with the encouragement of the Government. Belgian jurists have improved the administration of justice and are judicially with lawyers are preparing a new code of laws. An International Court tries cases between natives and foreigners. An Englishman has organized a police force and Sikhs are employed by it in the capital. English assistants are employed in the financial department and in the forestry, survey, customs, sanitary, mining, and other branches of administration. There are numerous Belgian and Danish officials, and recently Japanese experts have been called to responsible positions, while Siamese who have received a European education have replaced some of the Europeans. The reigning King is Chulalongkorn, born Sept. 20, 1853. Prince Vajiravudh, born Jan. 1, 1881, was proclaimed heir to the throne on Jan. 17, 1898. Siam is the official language in all parts of the country. A system of education has been established by the Government under English guidance, and English is taught in some of the higher schools. There is a school for the children of nobles, many of whom, however, receive only the education of the lower vernacular schools. There were 90 young princes and others studying in Europe in 1902. The normal school has 66 pupils. A military school and a civil-service school prepare youth for an official career. The imported educational system has made little influence. There are 5,000 Buddhist temples and 60,000 priests, and of these 3,300 are teachers having 23,000 pupils. There is no class now between the nobility and the serfs, the Chines having taken the place of the lads and bondsmen.

Area and Population.—The present area is estimated at 220,000 square miles, the population at 5,000,000, of whom 2,000,000 are Siamese, 300,000 Lao, 1,000,000 Lao, and 700,000 Burmese, Cambodians, Annamites, and Indians. The Chinese immigration in 1900 was 25,499, while 17,200 returned to China. The population of Bangkok, the capital, is estimated at 80,000. The Siamese Government estimates the total population at 12,000,000. Slavery has existed from early times. One can become a slave by falling into the hands of a slave dealer and to any bidder who assumes the debt. Forced labor is exacted from the laboring population for any public work and often for the benefit of the officials. This is being abolished and a poll-tax collected instead. Slavery also will be abolished by a decree of 1890 freeing all children of slaves born after Dec. 16, 1897, and reducing the redemption fees for all slaves. Free labor is very hard to obtain. Chinese coolies do the work in the rice-mills and mines of the south, and in the northern forests Karen, Khamus, and Burmese are employed.

Finances.—The revenue for 1901 was estimated at 33,000,000 ticais and for 1902 at 33,500,000 ticais, expenditure for 1901 at 32,600,000 ticais and for 1902 at 33,074,000 ticais. The actual receipts in the year ending March 31, 1901, were 35,611,306 ticais, and the actual disbursements 31,841,257 ticais. The receipts in 1900 were 30,025,640 ticais, and expenditures 27,922,677 ticais. The opium, spirit, and gambling monopolies, which are farmed out, yielded 4,698,622 ticais, 3,730,509 ticais, and 6,299,525 ticais respectively; land tax and fisheries, 3,601,145 ticais; customs, 4,450,262 ticais; forests and mines, 1,414,402 ticais; posts, telegraphs, and railroads, 793,753 ticais; personal tax, 1,684,400 ticais. There are taxes on boats and shops, on pigs and poultry, on Chinese calculated in the assessed rates, and on various other articles that yield in the aggregate 442,675 ticais. The revenue for 1903 was estimated at 39,000,000 ticais. The revenues in the last ten years have increased without the raising in the tax levy. The civil list and household expenses of the King amount to 6,500,000 ticais a year, besides which 90,000 ticais are expended in charities, 100,000 ticais on precious stones, 100,000 ticais in entertaining strangers, and 800,000 ticais in funeral expenses for the court. The sum expended on new roads in 1901 was 275,000 ticais.

The tical is the standard coin, equal in silver content to three-fifths of a Mexican dollar. The
dollars have been received and were legally current at that rate. In 1902 the English financial advisers induced the Government to adopt a gold basis similar to the Indian and to issue banknotes to the place of silver, which can no longer be coined freely at the mint nor pass current in the shape of Mexican dollars, though the Government accepts dollars for the deposits it has in the banks at the old rate of $5 for 6 baiats. The sealing rate for national coins and paper currency was fixed at 20 baiats to £1.

Army and Navy.—The Government has 40,000 Mauzer and 10,000 new Mannlicher rifles and many old bronze guns and maintains 6,000 men under arms and 7,000 reserves, who have been instructed by European officers. There is a conscription law requiring every young man to serve for three years from the age of eighteen and three months in every year thereafter, but Chinese pay a commutation tax and natives can obtain exemption by paying 2 baiats a year or can furnish a slave as a substitute, slaves, priests, and officials being exempt. There is a marine infantry numbering 15,000, who are on active duty 2,000 a time, between the ages of twenty-two and forty.

The naval force consists of the cruisers Maha Chakkrri and Makut Rajakumar, of 5,000 tons, 7 gunboats, 2 monitors, a school-ship, a torpedo-boat, 10 other armed vessels over 100 tons, and 40 smaller steamers. The vessels are armed with quick-firing guns. There are 10,000 trained seamen, of whom 2,000 are provided to serve in the navy at one time and 2,000 more are held in readiness.

Commerces and Productions.—The staple product of the country is rice, and the production is being greatly increased by the extension of irrigation canals. Most of the rice-mills are owned by Chinamen, a few by Europeans; Japanese are introducing silk culture. The teak forests are exploited by British companies. Pepper, salt, dried fish, cattle, and sesame are exported. The teak exported in 1903 was 45,101 tons. Siamese vessels are built up the Chao Phraya, and in the future, though vast quantities have been cut and all will not be got out for five years. An English forest official from India is conservator. Ceylon, Java, rubber, and tin are exported by European companies, tin by Chinamen. The imports of cotton goods in 1900 were £409,058 in value; opium, £141,149; silk goods, £129,127; iron, £103,870; iron wire, £89,970; elephant ivory, £57,886; sugar, £101,819; kerosene, £97,857; gunny-bags, £91,432; cotton yarn, £55,200; hardware and cutlery, £23,112; other merchandise, £1,014,900; treasure, £336,304; total imports, £2,576,540. The exports of rice in 1900 were £22,250,470 in value; teak, £324,748; other woods, £31,724; sea products, £212,821; cattle, £48,524; pepper, £46,540; treasure, £20,115; total exports, £3,407,819. The imports come from Singapore, Hong-Kong, China, Europe, and Bombay, and the exports go to Singapore, Hong-Kong, Europe, Bombay, Saigon, and China. Salt, iron, silk, and tea come also overland from China and cotton goods and hardware are exported to Yunnan.

Navigation.—There were entered 454 vessels, of 390,073 tons, and cleared 450, of 379,073 tons, during 1900. The regular steamers, formerly British, have been sold to Germans.

Railroads, Posts, and Telegraphs.—A railroad from Bangkok to the harbor of Paknam was opened by a Danish company in 1883. In 1898 the Government began to build a line from Bangkok into the northern and eastern provinces, and in the first two years 18,000,000 tiles were expended. The northern line was completed to Muang Khorat, 102 miles, by the end of 1900. A branch was built westward from the main line 28 miles to Lopburi, and is to be continued 247 miles farther to Kingmaei, and eventually to the Burmese frontier at Kiang-sen, 124 miles farther west. A line is being constructed from Bangkok southwestward to Petchaburi, 94 miles. Another line, 110 miles long, runs from the Lopburi line to the Buddhist shrine at Pratbat, and will be extended into the mineral and forest region beyond, and a company has undertaken to build one from Bangkok northwestward to the mouth of the Ticten river. The telegraphs have a total length of 2,900 miles. Siam joined the International Postal Union in 1885. There were 883,460 domestic and 479,824 foreign letters sent in 1890.

The Malay States.—Siam from early times claimed suzerainty over the Mohammedan states of the Malay peninsula, invading them at times and attempting to rule them, often deciding questions of succession, but usually being content with the triennial tribute and emblem of vassalage, consisting of gold and silver flowers. Great Britain took Perak under its protection in 1874, and later took Negri Sembilan, which was ceded to it by Siam in 1876. These events impelled Siam to assert authority in the peninsula in a more visible form. Petani was reduced to subjection by a Siamese army and divided into four states, each governed by a native rajah appointed by the Government at Bangkok. Siamese officials controlled the affairs of Kesah. After the latest extension of British protection the King visited Kelantan and Tringano and inaugurated a more active policy, introducing the Siamese postal system, raising the Siamese flag, and, after taking advantage of a quarrel over the succession in Kelantan to place on the throne a subservient sultan, appointing a resident with an armed escort after the manner of the British. The Siamese officials in those states have been replaced by the Federated Malay States have not governed as justly or wisely as the British residents, and the British officials have been preparing the situation for a more or less complete extension of their authority. The Rajah of Petani and the Rajah of Raman asserted their independence, and were taken as prisoners to Bangkok. The Sultan of Kelantan showed a similar reluctance, content, and the people alike of these states expect to be more prosperous under British rule, witnessing the prosperity of their neighbors. In the Franco-English agreement of Jan. 15, 1895, respecting Siam, France recognized the Malayan peninsula as a British sphere of interest, as England recognized the Mekong basin as a French sphere. In September, 1902, the Sultan of Kelantan took 300 Sikh soldiers into his service as a counterpoise to the guard of the Siamese resident. A few weeks later he was visited by the Governor of the Straits Settlements. In October the Siamese and British governments came to an arrangement with regard to both Kelantan and Tringano, which border on Perak and Pahang and are regarded by the British as being in such a state of unrest and confusion as to constitute an impediment, while under exclusive Siamese control, to the peace and well-being of the British protectorate.

Rebellion.—Just as the British claim a right to intervene for the elimination of Siamese misrule and oppression of the Malays of the peninsula and Karen and Shan on the Burmese frontiers, so do the Siamese claim a right to intervene for the elimination of the British occupation of the Malay Peninsula and the British administration of the Straits Settlements.
tiers on the ground that the neighboring populations over which they rule are disquieted, so the French claim a sphere of influence and a right of intervention in the parts of the Siamese Empire inhabited by Laotians, Cambodians, and the Shan tribes of the northeast. In April, 1902, troubles occurred on the upper Mekong, and the Siamese Government sent troops into the disturbed region. The French Governor of Indo-China at the same time made a military demonstration on the lower Mekong on account of some infringement by the Siamese in Battambang of the treaty obligations forced upon them in 1893. The Siamese rebels in the north crossed the Mekong and came into collision with the French forces posted there. These Shan rebels captured Muang Pray and held it against the Siamese troops, having put to death all the Siamese officials. The uprising became more formidable and extensive. When the French complained of the invasion of their territory the Siamese Government disclaimed responsibility for the acts of rebels and freebooters over which Siam has no control. The French Government had often to complain of the violation of the frontier by the Siamese and of their disregard of treaty obligations in the neutral zone. One of the conditions of the Amurath of 1856 guaranteeing the inviolability of the Menam valley against either French or British encroachment was that the King of Siam should employ within it no troops not under French control. Yet he had engaged 1,600 Sikh soldiers as police in Bangkok. When the French objected the Siamese reply is said to have been that they were necessary for the defense of the Thailand capital, which these police could not be depended upon to keep awake. The rebellion in the north, caused by the exactions of Siamese officials, was quelled in the end by the troops. The rebel chiefs and many of the inhabitants took refuge in French Laos.

**New Treaty with France.**—Since the bombardment of the Paknam forts by the French and other hostilities that ended with the treaty of Oct. 3, 1893, the French have been excluded from all influence at Bangkok and from the commercial and other favors shown to the nationals of other powers, under British influence, which the French then sought to counteract, was not impaired. The French annexed at that time the territory of Luang Prabang that was claimed by Siam, and from the Mekong, as they have occupied the town of Chantabun, and though the occupation was declared to be temporary they have expended 15,000,000 francs there; they forced Siam to agree to keep no troops in a zone of 55 miles on the right bank of the Mekong; and the police rights of Siam were restricted, and she was forbidden to maintain troops or build fortifications in Battambang and Angkor, old Cambodian provinces.

The British expansion in Burma was the occasion of French aggression. In January, 1896, the grounds for a forward policy on the part of France were taken away by an agreement between France and England by which they mutually guaranteed to Siam the integrity of the Menam basin and the coast from Muang Bang Tapan to Muong Pase. On Oct. 7, 1802, a treaty was signed at Paris by which Siam ceded to France the province of Mekong, as a part of the provinces that were once Cambodian and were conquered by Siam, but in the treaty Siam recognizes French rights to a special position in the Siamese part of the Mekong basin, to which before she would not formally agree.

After the conclusion of the treaty the Siamese Government asked that a Frenchman be designated for a high civil post in Angkor, and a willingness to establish a department of hygiene and sanitation with a French staff. A French engineer was engaged to superintend public works at Bangkok. The mail subsidy to French steamers running between Bangkok and
Saigon was restored. The territory ceded to France has a total area of 7,750 square miles.

**SOUTH AFRICA.** With the conquest of the two Boer republics the whole of South Africa becomes British territory, with the exception of the coast regions belonging to Portugal in the east and west and the unproductive sphere of Germany in the southwest. In British South Africa, thus expanded, has an area of about 1,000,000 square miles, of which 700,000 square miles are south of the Zambesi, for the most part already provided with civilized institutions, and 300,000 square miles are a promising region of great natural agricultural and mineral resources extending from the Zambesi northward to the boundaries of German East Africa and the Congo Independent State. The High Commissioner for British South Africa is Lord Milner.

**Final Campaign.—** At the beginning of 1902 the theater of the war still extended over the length and breadth of British South Africa excepting the coast regions and populous parts of Cape Colony and Natal, a circuit of about 40 miles radius around Bloemfontein, and the cultivated districts surrounding Pretoria and Johannesburg as far west as Rustenburg. The British had garrisons in all the considerable towns of the eastern Transvaal railroad; but the Boers had effectively guarded by blockhouses and constabulary posts, connected with barbed-wire fencing, with trenches dug on both sides of the track in the threatened portions and surging guns and automatic electric alarm signals, that the Boers could no longer cross it in large parties at any point between Pretoria and Bloemfontein or south of there. Lord Kitchener had ceased active operations while extending the blockhouse system not only along the railroads but east and west to garrisoned posts away from the railroads. All the 2,000 miles of railroads were blockhoused, but only completely enough to prevent Boers from crossing in the important sections separating the districts still held by the Boers. Continuity of the line from Cape Colony to Natal was established along the railroads 5 or 6 miles apart, with 4 or more blockhouses around the circumference of an entrenched position for the garrisons and surging guns and automatic electric alarm signals. The blockhouses, of corrugated iron, were strengthened by bags of earth and protected by spider-web entanglement of barbed wire and trenches. When these were completed trenches were dug from blockhouse to blockhouse and barbed wire stretched between them. More strongly garrisoned than the constabulary posts, but with unmounted troops for defense only, were the stations placed at sufficient intervals from which were distributed rations, water, and ammunition along the line and where conveyances halted at night on the lines stretching away from the railroads, which were safe lines of communication by day. Along the Bloemfontein-Pretoria Railroad the country was safe by day for 10 miles on each side of the line. The lines of posts erected away from railroads proceeded rapidly in the beginning, but the Boers got more and more from the base increased, because materials and supplies had to be transported by ox-teams, and these were scarce.

The Boers, having undisputed possession of the great quadrilateral in the eastern Orange Free State from Frankfort on the north to Bethlehem on the south, and from Lindley on the west to Botha's pass on the east. This area the British proceeded to enclose with lines of blockhouses. Away from the blockhouse lines the Boers roamed at will and could concentrate 1,000 men or more at any point north of Basutooland, and the British could not move in large bodies. In the western Transvaal the region between Klerksdorp and Vryburg was Boer country. In the southeastern Transvaal, east of the strong blockhouse line running from the Natal to the Lourenço Marques Railroad the Boers under Commandant-General Louis Botha held the country undisputed. A line of blockhouses from Wakkerstroom to Piet Retief was intended to protect northern Natal and Zululand from their raids. In the northwestern Transvaal the British held the Magaliesberg range as well as the Pretoria-Rustenburg Railroad by numerous blockhouses. From Rustenburg and Zeerust northward the possession of the country by the Boers was not yet challenged, and there their most considerable force was still a coherent and disciplined body under the chief command of Gen. De la Rey, while Gen. Christian de Wet was in the eastern part of the Orange Free State. Throughout the whole northwestern Transvaal railroad the Boers were left undisturbed, and they were numerous and busy, though not with directly hostile operations. These were not the fighting Boers, but the unarmed farmers providing the forces with food, clothing, and such war material as could be manufactured in the country. In the fertile valley north of Lydenburg they raised grain enough to feed their entire army and ground it into flour at Pilgrim's Rest and, after their mill was blown up by treachery, at Sabie Drift. A blockhouse line was being carried from Klerksdorp through Venterdorp to the Rustenburg line to protect the Rand from raids, and it extended across the Vaal to Kronstad. When the completion of the line was of urgent necessity the blockhouses were placed wider apart, leaving the intervening ones and the fencing to be filled in later. The Vaal river from Klerksdorp to Standerton was lightly guarded with a long blockhouse line and some posts. The railroad in the Orange River Colony from Winburg to Bloemhof; one passed through Thaba Nchu to Maseru on the border of Basutooland, and through Ladysmith to Pietermaritzburg; and these there was one connecting Fouriesburg with Bethlehem. There was a network no longer needed in the northern parts of Cape Colony, though bands of rebels were still at large in the tiny country north of Cradock and on the borders of Basutooland and Caffraria; in the west of Cape Colony, where the rebels were still active, a long line, stretched from Lambert's Bay to Victoria West on the railroad, protected the settled districts; and the railroad was well protected northward to Kimberley, and even to Vryburg and Mafeking, and lightly farther north, with lines crossing the country from Kimberley to Boshof and from Jakobswal along the Riet to the cleared country about Bloemfontein. This cleared region, protected at first by the South African constabulary, was left principally to the national scouts, a body recruited by ex-commandants among surrendered Boers who wished to bring pressure upon the leaders as the distance increased, and to abandon what the Boers who had accepted British sovereignty at various times since the fall of Bloemfontein and Pretoria, contemptuously called "handups" by the others, was a hopeless struggle that was ruining and extermi-
nating their race. The national scouts extended the area of occupation westward from Bloem-
fon, added the territory of the Mafikeng, extended the territory held and patrolled west of Pretoria and the Rand. The British army of over 500,000 men rested in the garrison towns and in the block-
houses, relieved of the long marches and dangerous drives that had previously exhausted the troops actively employed. The Boers in the field were reckoned to be not over 5,000, though in reality they were twice as numerous; yet Lord Kitchenier could not rely on his troops, constantly renewed by fresh drafts from England, more untrustworthy than the earlier. He was hampered still more seriously by lack of horses. The Government was buying horses in the British Islands, Hungary, the United States, Canada, the Argentine Republic, Australia, and India at enormous expense, requesting the re-
mount department in South Africa to reduce its demands. During 1901 the Government sent 129-
000 horses, and in 1902 continued sending them at the rate of over 12,000 a month. The United States alone furnished 201,000 horses and mules from the beginning of the war. The horses, however, were used up almost as fast as fresh ship-
ments came down the neighborhood of the Cape, losses of sickness, and lack of proper nourishment. There were scandals in the contracts for horses and for fodder, clothing, and other army supplies. The British, American, and Canadian horses stood the work best. After the Boers had lost all their artillery the British discarded most of theirs and converted the men with their horses into mounted infantry. In January the German president of the German republic, Schalk Burger, with his Government, was in the mountainous district north-west of Lydenburg in the vicinity of Roos Sene-
kal, guarded by a commando under Stephanus Trichardt. To the northeast Commander Muller protected the factories and the women's laager at Sable Drift. Lydenburg, between the two, was strongly held by the British. Two British col-
umnos moved about in this region, but did not accomplish as much as the national scouts. Gen. Ben Viljoen, one of the best of the Boer leaders, was captured and imprisoned by the German Government to a conference in Capetown with Schalk Burger. In the western Transvaal Lord Methuen, from the Mafeking Railroad as a base, moved on the skirts of the territory com-
manded by Gen. Delville. Col. Bekaerts and other column leaders swept the border districts, but there were large and fertile regions in the interior where Boer farmers raised ample crops and reared herds of cattle with scarce any con-
sciousness that war was going on in the country. The grazing country west of the Mafeking Railroad was also a source from which herds of cattle were driven through the thin line of posts on the railroad without hindrance. West of Kimberley Commandant van der Merwe was in communication with the rebels operating in the western part of Cape Colony. President Steyn of the Orange Free State was with Commandant de Wet, between the Frankfort and Bethlehem lines of blockhouses, which were being strengthened with the idea of enclosing the Boers in this area and breaking up this already weakened force by the first forward movement. In the towns permanently occupied by the British, like Brandfort, Wel-
toorn, Utrecht, and Vryheid in the Transvaal and Lindley, Heilbron, Frankfort, Bethlehem, Thaba Nchu, Jakobstad, and Koffyfontein in the Orange Free State, blockhouses were installed and schools were established. Lands in the neighborhood of Bloemfontein, Jo-
hannesburg, and Pretoria were apportioned out to surrendered Boers and loyalists for small cul-
tivation. Large estates in the district of the Orange Free State and Ficksburg were purchased for proposed Brit-
ish colonies. Railroads were extended. One was built to Thaba Nchu. The Australasian colonies and Canada raised fresh contingents for the war early in January, and Great Britain additional yeomanry regiments. Gen. Bruce Hamilton's cav-
alry columns were active against the commandos of the Bothas and Groblesaar near Swaziland frontier, while Lord Kitchener continued concentrating troops in the Orange River Colony to surround De Wet, who had collected the small parties into which his forces had been divided and scattered throughout the country into sev-
eral large bodies and resumed aggressive tactics. Commandants Fouche, Myburg, and Wessels penetrated once more into the central part of Cape Colony. Commandant Kritzinger was cap-
tured. Commandant Schepers, previously captured, was tried by court-martial and shot on Jan. 18, as Lotter and other leaders of the colo-
nial rebels had been before. Other rebels were shot on charges of killing armed black or native spies, often on the testimony of blacks. Members of the Free State Government were arrested for treason. The prisons of Cape Col-
ony were crowded. The Cape Colonists were ex-
asperated. There was an outcry in England against the court-martial and the placing of all Cape Colony under martial law. The suspension of the Constitution and the failure to call a session of the Cape Parliament were condemned as illegal. The British in the Cape were placed under martial law in the coast districts where no rebellion occurred as a military measure to prevent the bringing of foreign recruits and arms to the enemy. The foreigners had in fact left the Boer army, and the only persons not of Dutch blood still fighting with the Boers were South African residents. The shooting of rebels by the decree of courts-martial composed of young British offi-
cers ceased. When Kritzinger was tried he was acquitted. Two Australian officers convicted of murdering 12 Boer prisoners, accused also by the German Government to a conference with the colonial commander to prevent his denouncing them, were exe-
cuted and their commanding officer was cashiered for concealing their crimes.

The voluntary levies were procured mostly by the national scouts, of whom another corps of 1,500 was organized by Gen. Vilone in addition to 2,000 organized by Gen. Piet de Wet. By the end of February all those who were willing to surrender voluntarily had come in. Many prom-
inent Boers who believed the war to be hopeless gave themselves up with their commands when unable to escape British columns in that month. The Boer forces left in the field were the best fight-
ing men, prepared for a long struggle to preserve some remnant of independence and to save from hanging the Cape Colonists who had fought with them. Of the Boer leaders 23 had been captured by the British and sent into perpetual banish-
ment. The blockhouse system was gradually ex-
tended over the country, enclosing areas that were cleared in sections by mobile columns. The clear-
ing consisted in burning all dwellings, destroying or carrying away all crops, stores, and other mov-
able, driving off the cattle and taking the peo-
ples found on the farms into concentration camps. The native districts in the northeastern part of the Orange River Colony were devastated in the same way, all huts and other pasturages were cleared and the natives removed to concentration camps, but receipts were given for property commandeered or
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The raiders in the midland districts of Cape Colony were driven out once again by Gen. French's columns. Mobile columns were sent out next after De Wet. On Feb. 3 Col. Garratt captured a convoy with 30 guns that De Wet had taken from a British column on Dec. 24. The extension of the blockhouse lines brought the British nearer to the Boers and greatly improved the mobility of their columns. Almost every day a Boer laager or convoy was taken, with cattle and wagons, and a dozen or more prisoners reduced the fighting strength. The captures already amounted to more than the estimated strength of the whole Boer army. The result of the drive against De Wet was a Boer loss of 253 men killed, wounded, and prisoners, 1,700 horses, and 20,000 head of cattle. De Wet himself narrowly escaped capture. There were about 1,200 Boers with the leader north of the Vaal, and Lord Kitchener stretched out 10,000 troops to encompass them. De Wet divided his command into three main and many small parties, offering every man the opportunity to surrender to the British who was unwilling to fight to the end. Two of the larger bodies of Boers broke through the girdle of British troops in the night of Feb. 6, and on the following night De Wet's own party broke the wire fencing by driving cattle against it, but only 400 Boers got through. British detachments from Gen. Bruce Hamilton's force, which had been weakened to increase the forces that attempted to corner De Wet, and from the bodies operating in the northwestern Transvaal.

On Feb. 16 was begun another great drive with the object of capturing De Wet and Steyn, who were not aware of the movement until the column was passed and advanced to push them upon the blockhouse line from Vrede to Botha's pass. In the night of Feb. 19 a commando of Transvaalers that had inflicted severe losses on a detachment of mounted infantry a week before rushed their cattle upon the wire fence and passed through the blockhouse line without loss. In the night of Feb. 24 De Wet and Steyn broke through the wire fence, though not without a heavy loss inflicted by the New Zealanders, who likewise had 60 killed and wounded. The Boers drove a herd of 6,000 oxen ahead of them and then started a stampede, which filled the mules, and received the surrender of Lieut.-Col. Anderson and 475 of his yeomanry and volunteers. The absolute losses of the British were still as heavy as those of the Boers. The captured British did not affect their fighting strength appreciably and were invariably set free by their captors. The men and rifles captured from the Boers rich lure of numberless Boers lost for the Boers the services of many of their native ox-drivers. A third body fought its way through the cordon, and on Feb. 27 the commando of Jan Meyer surrendered. The total Boer losses were 800 men, with 2,000 horses, great numbers of sheep, wagons, and 23,000 cattle. There were 750 Boers who gave themselves up when cornered. The British also captured 209 machines and 100,000 rounds of ammunition. On March 7 Lord Methuen, who, with 1,200 men and 5 guns, was marching from Vryburg to join Gen. Grenfell south of Lichtenburg, was attacked at Tweeboech by the commandos of Delarey and Kemp, which surrounded the rear-guard and delivered a sudden and accurate fire that the yeomanry fled in panic, mingled with the stampeded mules. The Boers attempted to make a defense until the Boers completely surrounded them and Lord Methuen was incapacitated by a wound.

This was the last important success of the Boers. Delarey released Lord Methuen and the surrendered troops. The Orange River Colony was already made untenable for any large body of Boers. Lord Kitchener began vigorous operations against Delarey. On March 23 Col. Kekevich recaptured the guns taken from Lord Methuen's column. It was a big drive, like those that had been carried out against De Wet, and was not more successful in the capture of Boers in the encased area, although 8 columns took part and some of the lightly equipped mounted troops marched 80 miles in
twenty-four hours. The Boer losses were 12 killed, 185 taken prisoners, 5 guns, and a part of their cattle, horses, mules, and wagons. Commandant Kemp slipped round one end of the enrolling line, while Commandant Liebenburg placed his men, clad in khaki, in the order of a British column and was allowed to pass through un molested. Peace negotiations were proceeding, but no truce was made, so that the expressions against the Delarey were not interrupted. On March 31 Col. Kekewich and Gen. Walter Kitchener attempted to close in upon Delarey's main force near Barberspan. A part of the latter's force became engaged with Kemp's men on the Hart river. The British entrenched themselves in a good position, and held it against a determined attack from all sides. A Canadian detachment of 54 men under Lieut. Bruce Car thers fought till all were slain. A new contingent of Canadians and the ninth contingent from each Australian colony and from New Zealand were on the sea. The latest estimate of the Boer effective forces was still 8,000 men. In the Orange River Colony no single force exceeding 400 was able to concentrate. In Cape Colony the bands of 100 or 200 that operated volun tarily in the midland districts or on the northern border could always be driven back into the hills or the desert. In the eastern Transvaal the largest body was that of the Boers, 4,921 led by Command ant Alberts, and in the north Beyers had about as many men and other leaders had smaller bands about Lydenburg. Delarey was still able to muster 2,000 at an attack. The remnants of the Boer army were being used up at the rate of 150 a week. The total number of prisoners taken by the British from the beginning of the war was about 29,000.

Col. Colenbrander carried the war into the northern Transvaal. With a strong force he invested the laager of Commandant Beyers in the mountains, which he captured with over 100 prisoners. In the west Gen. Ian Hamilton took charge of the columns. Commandant Potgieter, who led a fierce attack against Col. Kekewich's force on April 11 at Rooival, was killed, with 43 of his men, and 34 were wounded, while the British lost 6 killed and 52 wounded. The Boers were pursued and lost 88 more men. A movement of Gen. Bruce Hamilton from Mid dleburg resulted in a loss to the Boers of 145 in killed, wounded, and prisoners. Col. Lawley led a small column unawares into the laager of Commandant Primloo at Boshoek's Kop, and in a hand-to-hand fight the British regulars fought their way out, killing or wounding the Boer officers and 60 of their men. Drives in the east and the west were still carried out in May. The Boers, with peace in prospect, showed more disposition to surrender than to fight. Several commandos, consisting mainly of Transvaalers, continued to operate in the eastern part of Cape Colony, and laid siege to the town of Ookiep until driven off by British reinforcements. Of the captured Boer leaders 30 more were sent into perpetual exile in accordance with Lord Kitchener's proclamation of Aug. 7, 1901.

The war came to an end on May 31. The number of Boers estimated by the British intelligence department to be still on command had risen to 8,000. The British garrison in South Africa in August, 1899, was 9,940. Before the outbreak of the war on Oct. 11, 1899, it was increased by 12, 348 troops, and before Aug. 1, 1900, by 155,935 regulars from Great Britain and the colonies, 1,591 from India, 11,584 colonials from Australasia and Canada, 30,319 raised in South Africa, 21,457 militiamen, 10,731 yeomanry, and 11,290 volunteers from Great Britain, making the total, including the garrison before the war, 265,132 officers and men. Between then and May 1, 1901, there were sent out 22,867 regulars from home and the colonies, 5,790 colonials in addition to 22,065 raised locally, 3,930 militiamen from home and the colonies, 15,733 yeomanry, 5,805 volunteers from the United Kingdom, and 5,180 South African constabulary recruited in the United Kingdom. The pay was 5s. a day; and before the end of 1901 the additional reenforcements were 22,746 regulars from the United Kingdom, 5,837 from India, 1,194 colonials, 6,662 militiamen, 921 yeomanry, 497 volunteers, 454 Scottish horse, 1,700 South African constabulary from the United Kingdom, and 1,238 from Canada.

Further reinforcements till May 31, 1902, were 20,260 regulars from home and the colonies, 6,578 from India, 10,827 colonial troops, 11,008 militiamen, 7,135 yeomanry, 2,515 volunteers, 579 Scottish horse, and 384 South African constabulary. The total sent to and raised in South Africa from the beginning of the war, including the original garrison, was 17,659 officers and 430,870 men. The total numbers of regulars and volunteers raised in South Africa after the first enlistments are not known and are not included in the total, which comprises, besides the original garrison of 27,817 men, 26,028 men from the United Kingdom, 165,566 militia, 55,620 yeomanry, 833 Scottish horse, 19,856 volunteers, and 7,273 South African constabulary from the United Kingdom; 18,229 regulars and 395 volunteers from India, 23,050 in the colonial contingents, 1,238 South African constabulary, and 32,414 men raised in South Africa. Of the total 66,531 returned to England in health and 12,294 to the colonies, 10,134 regulars were ordered to India and 3,578 to the colonies, 395 militia were stationed at St. Helena, 75,430 were taken back to England sick or wounded or died on passage, 9,713 were in hospitals in South Africa at the end of hostilities, 6,685 were disbanded in South Africa, 16,186 died in South Africa of disease or wounds, 5,774 were killed in battle, and 22,820 were wounded. The war came to an end because the Orange Free State was practically cleared and held by the British and in the eastern Transvaal foodstuffs were exhausted. In the west the Boers still held both the Pirie and columns, released from the Orange River territories, could be concentrated for drives that would soon clear all except the wilder and more distant parts.

The mortality from battle among British officers was 71.48 per 1,000 in the first, 21.94 in the second, and 32.63 in the third year of the war; from disease, 29.09 in the first, 15.03 in the second, and 16.40 in the third year. Among the rank and file 19.62 per 1,000 were killed or died of wounds in the first, 10.87 in the second, and 11.13 in the third year; and 21.07 per 1,000 died of disease in the first, 20.56 in the second, and 18.24 in the third year. The average rate of mortality of British troops on foreign service is 15 per 1,000. In the American Civil war the death-rate from all causes was not reduced below 46.49 per 1,000 in the last year of the war, and in the Franco-Prussian War the average was 46 per 1,000 per annum, while in the Boer War it was brought down to 30.03 in the closing months. In the two years, seven months, and twenty days that the war lasted 726 officers and 7,862 non-commissioned officers and privates were killed or died of wounds, 546 were killed or died of accidents and 344 officers and 13,008 non-commissioned officers and privates died of disease. The Boers had about 50,000 combatants at the beginning of the war. No foreigners joined them after the first
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year. The number who went into the field from South Africa is estimated at 75,000. Their losses during the war were 3,700 killed or died of wounds and 32,000 prisoners of war, of whom 700 died. After the terms of peace were signed Lord Kitchener appointed as commissioners to receive the surrenders of armed burghers Gen. Bruce Hamilton for the eastern and Gen. Walter Kitchener for the western Transvaal; Gen. Elliot for the Orange River Colony, and Gen. French for Cape Colony. Gen. Louis Botha, Gen. Delaere, Gen. Christian de Wet, and other influential Boer leaders accompanied the British commissioners and induced all the burghers to surrender except those who joined commands in the remote wild regions of the north and west that were British territory or trekked beyond into German and Portuguese territory. Total surrender ceremonies: 11,166 armed Boers in the Transvaal, 6,455 in the Orange River Colony, and 3,635 in the Cape Colony; total, 21,256. The surrendered burghers who were unwilling to take the oath of allegiance were permitted to sign a declaration that they accepted British sovereignty and would not again take up arms against Great Britain. The British controlled war in Africa, Australia, India, and Ceylon were brought back to their own country on subscribing to the oath or the declaration, which, however, some of them refused to sign.

Conclusion of Peace.—On Jan. 25, 1902, the Dutch Government, in view of the exceptional circumstances in which one of the belligerents was placed, by the Boer authorities in South Africa being unable to communicate with the delegates in Europe, who bore no instructions later than those drawn up in March, 1900, binding them so strictly to the independence of the republics that they could not even accept the status quo ante bellum unless a mode of settling disputes were laid down at the same time, seeing that the Boer delegates were in Netherlands territory and accredited to that Government alone, offered its good offices as a neutral power to bring about negotiations for peace that could not otherwise be opened. The Dutch memorandum proposed that the Boer delegates should be free to communicate with South Africa in order to deliberate with the Boer leaders and return with full powers to conclude a treaty of peace, binding the Boers in Africa and the Boers of the Cape and the Orange Free State to the Netherlands Government to place them in communication with the powers acting in South Africa. The British Government declined to accept the intervention of the Dutch Government, intimating a belief that the Boer delegates in Europe have no influence over the representatives of the Boers in South Africa, stated its understanding that all powers of government, including those of negotiation, were vested in Mr. Steyn and Mr. Schalk Burger, and therefore inferred that the quickest and most satisfactory means of securing a settlement would be by direct communication between the leaders of the Boer forces and the British commander-in-chief in South Africa, who was already instructed to forward any offers he received for the consideration of the British Government.

On Sept. 5, 1901, Schalk Burger sent a communication to Lord Kitchener to ascertain what measure of self-government would be left to the republics and what conditions could be obtained for the Cape rebels if the Boers should lay down their arms. Lord Kitchener replied on Sept. 22 that the annexation of the republics must stand to prevent South Africa from again being con-

vulsed with war and to protect those who had accepted British rule, and that the clear issue was the prerogative of the ruler of the state, pointing out that the Republican Government had tried and shot traitors and that the commandant-general had threatened to destroy the farms and confiscate the property of burghers who, after taking the oath of allegiance to Great Britain, refused to rejoin the commandos.

President Steyn of the Cape Colony, supported by Commandant-General Botha, Gen. de Wet, and the rest of the Boer leaders, still held out in the hope, not of intervention by any European power, but of a revulsion of feeling in Great Britain, caused in part by the farm-burning, the hanging of Cape Colonists, compelling their neighbors and relatives to witness the spectacle, the arming of natives to fight for the Boers, the concentration camps, and other practices denounced by the Liberal leader in the British Parliament as "methods of barbarism," and in part by the cost and apparently interminable war. On the one hand, which kept a larger British army in the field than ever and entailed heavier expenses than ever, the total cost from the beginning having already exceeded £220,000,000, Bermuda, Jamaica, and Ceylon were brought back to their own country on subscribing to the oath or the declaration, which, however, some of them refused to sign.

The correspondences between the British and Dutch governments was forwarded by the British authorities to President Schalk Burger, who decided to act on the intimation that, although the British Government would not treat with the Boer delegates in Europe, it would listen to proposals from the Boer authorities in South Africa. President Burger went into the British lines and obtained permission, on March 23, to consult President Steyn. Accompanied by Lucas Meyer, State Secretary Reitz, Attorney-General Krogh, and his colleagues, Janey, Vanderwaal, and Van Velden, he was conducted to Kroonstad. There the members of the Acting Government of the South African Republic remained until the Government of the Orange Free State could be reached. President Steyn and the chief commanders Louis Botha, De Wet, and Delaere, met them in consultation at Klerksdorp, and on April 12 all went to Pretoria to open formal negotiations with the British High Commissioner and the British commander-in-chief. Their first proposal was that the two republics should concede the demands made by the British Government before the war as to the franchise for Uitlanders and similar matters. Their proposals were franchise, equal rights for the English and Dutch languages in education, a customs union, dismantling of forts, postal and railroad union, arbitration of differences by Boer and British commissioners, and mutual amnesty. If these terms were not satisfactory they desired to know what the British Government would offer. When these proposals were forwarded to the British Government Mr. Brodrick telegraphed back his astonishment that the Boer delegates should persist in misrepresenting the situation and referred them to the terms offered at Middelburg a year before as the minimum. Although the reduction in the Boer forces and the substantial success of the British by the rejection of those terms would justify more onerous demands, the British Government was willing in the interest of permanent
peace and reconciliation to accept a general surrender on the lines of that offer with modifications to be agreed upon. The Boer leaders then asked to be allowed to consult the Boer authorities in Europe or to have these deputize one of their number to go to South Africa to assist in the peace conference. Lord Kitchener returned a categorical refusal to this demand, and a message was sent from London that negotiations had better terminate at once if the Boers did not intend to make serious proposals. The delegates announced that they had no power to accept peace on the basis of the surrender of the independence of the republics, and asked for an armistice to enable them to obtain authority from the burghers. Lord Kitchener refused to grant an armistice, but undertook not to molest burghers while actually holding any meetings necessary for securing the authority required by the delegates. The delegates left Pretoria on April 19 to consult the burghers in the field, with the understanding that the British authorities would not treat with them further unless they had full powers, to which President Steyn took exception. The commandos in the field elected delegates.

A national convention of 180 Boer representatives was immediately summoned at Vereeniging on May 15, and gave the peace delegates power to negotiate subject to ratification by the convention. The convention commissioned Louis Botha, Dr. J. D. Fourie, George Hertzog, Delarue, and Smuts to negotiate on the basis of surrender of independence in foreign relations, self-government under British supervision, and surrender of part of the territories of the Milner and Lord Kitchener refused to negotiate on this basis, and proposed to draw up a document to be submitted to the convention for a simple affirmative or negative vote. The Boer commissioners at Pretoria, and the British High Commissioner and commander-in-chief arranged on May 21 the terms to be submitted to the Boer convention, but it was not till May 28 that the British Government finally communicated the exact terms it was willing to offer, and these were finally accepted by the convention on May 30. Schalk W. Burger, F. W. Botha, Louis Meyers, K. A. J. H. Delarue, and Louis Botha, as delegates of the South African Republic, and M. T. Steyn, C. R. de Wet, J. B. M. Hertzog, J. Brebner, and C. Olivier, as Free State delegates, went to Pretoria on May 29 to sign the peace treaty on peace May 31, which they were authorized to do by resolution of the convention, explaining that the reduced and dwindling numbers of Boers in the field, and consideration for the 20,000 deport- ed prisoners of war and the dying inmates of the concentration camps, which threatened the ex- termination of the whole race, compelled them to surrender their national independence. The terms of peace were substantially those that Lord Kitchener had offered to Gen. Botha at Middelburg. The burghers in the field were to hand over all arms and ammunition and acknowledge British sovereignty.

Those outside the limits of the Transvaal and the Orange River Colony were to be brought back to their homes on acknowledg- ing allegiance to the King, and all prisoners of war were to be repatriated on the same terms, in- cluding leaders doomed to perpetual proscription by the proclamation of Aug. 7, 1901. Burghers surrendering or returning were not to be deprived of their personal liberty or their property. No proceedings, civil or criminal, would be taken against any of them for acts in connection with the war. Persons in certain acts contrary to the usages of war that had been notified by the British com- mander-in-chief to the Boer generals, which would be tried by court-martial immediately after the close of hostilities. The Dutch language would be taught in public instruction in the Transvaal and the Orange River Colony where the parents of the children desire it, and will be allowed in courts of law for the better and more efficient administration of justice. The possession of rifles will be allowed in the Transvaal and Orange River Colony to persons requiring them for their protection on taking out a license according to law. Military administration in the Transvaal and Orange River Colony will at the earliest possible date be succeeded by civil govern- ment, and, as soon as circumstances permit, representative institutions, leading up to self- government, will be introduced. The question of granting franchise to the natives will not be de- cided until after the introduction of self-government.

No special tax will be imposed on landed property in the Transvaal and Orange River Colony to defray the expenses of the war. As soon as conditions permit, a commission, on which the local inhabitants will be appointed, will be appointed in each district of the Transvaal and Orange River Colony, under the presidency of a magistracy or other official, for the purpose of as- signing the restitutions, as well as all the property and supplies of those who, owing to war losses, are unable to provide themselves with food, shelter, and the necessary amount of seed, stock, imple- ments, etc., indispensable to the carrying on of their normal occupations. The Imperial Govern- ment will place at the disposal of these commis- sions £3,000,000 for the above purposes, and will allow all notes issued on behalf of the South African Republic and all receipts given by officers in the field of the late republics, if found by a judicial commission to be appointed by the Imperial Government Commission, to have been duly issued in return for valuable considerations, to be received by the commissions as evidence of war losses suffered by the persons to whom they were originally given.

In addition to the free grant of £3,000,000, the Imperial Government will be prepared to make advances on loan for the same purposes free of in- terest for two years, and afterward repayable over a period of years with 3 per cent. interest. No foreigner or rebel will be entitled to the bene- fit of this clause.

With regard to the Cape Colonists and Natali- ans who had been in rebellion Lord Milner read a statement on behalf of the Imperial Government that they would be left to be dealt with by the colonial governments according to their laws, and the Irish and other British subjects who had fought with the Boers would be subject to trial under the law of that part of the British Empire to which they belong. He also stated the views indicated by the Cape Government as to the terms to be granted to Cape Colonists in the field or such as had surrendered since April 12, 1901. With regard to the rank and file, on giving up their arms, they should sign a document acknowledging themselves guilty of high treason; their punishment would be, provided they had not been guilty of murder or acts contrary to the usages of war, that they should not be entitled during their lives to vote at any parliamentary or local elec- tion. Justices of the peace, field-officers, or other colonial officials and all Cape Colonists who had been commandants of rebel or British troops, would be tried for high treason, but in no case should the death penalty be inflicted. The opinion communicated by the Natal Government was that rebels should be dealt with according to the law of the land.
The Boer generals Louis Botha, Christian de Wet, Delarey, and Lucas Meyer went to Europe soon after, with Paul Kruger, Dr. Leyds, and the Boer delegates Wolmarans, Fischer, and Wessels. They had a conference with Mr. Chamberlain and endeavored to secure from the British Government an allowance or annual grant for the support of widows and orphans ofburgers and maimedburgers unable to work; also the equality guaranteed in the peace convention of the Dutch and English languages in schools and law courts; the restoration of farms confiscated and sold under the proclamation of Aug. 7, 1901, the repatriation of all the proscribed leaders, amnesty for all persons who fought with the Boers, pardon for persons convicted of acts committed in connection with the war, the reinstatement of officials of the republics or compensation of all private persons for property seized or destroyed by British troops, and for use of properties taken possession of, the reconsideration of the decision to annex the Transvaal and Orange Free State to Natal, and the recognition as lawful obligations of the debts incurred by the republics during as well as before the war. The Colonial Secretary declined to reopen the subject in his reply. The generals visited other countries and appealed to the public of the Continent of Europe and of the United States to assist the widows and orphans of the Boers.

Cape Colony.—The colony of the Cape of Good Hope has responsible government. The legislative authority is vested in a Parliament consisting of a Legislative Council of 23 members elected for seven years and a Legislative Assembly of 95 members elected for five years by the registered electors, who must be able to write their names, and occupations and are qualified by the occupation of a house worth £70, or the receipt of a salary of £50. Speeches in Parliament may be made in either English or Dutch. The Governor of Cape Colony is Sir Walter F. Hely-Hutchinson. The colonial council at the beginning of 1902 was composed as follows: Prime Minister and Treasurer, Sir Gordon Sprigg; Colonial Secretary, T. L. Graham; Attorney-General, Sir J. B. Pass; Colonial Secretary, Sir C. S. L. Smarrt; Secretary for Agriculture, Mr. Pieter Fauè; without portfolio, J. Frost. The appointment of Sir J. Rose-Innes as Chief Justice of the Transvaal was confirmed by the Cabinet. Mr. Graham on Feb. 19, 1902, became Attorney-General, and Mr. Douglass succeeded the latter as Colonial Secretary.

The colony has an area of 21,311 square miles, with 375,897 white and 1,150,237 colored inhabitants at the last census. Of the white population, 27,667 are of English, 6,466 of Scottish, 4,194 of Irish, and 5,840 of German birth, and over 325,000 were born in South Africa. The colored population consists of Hottentots, Kafirs, Fingoes, Bechuanas, Malayo, and mixed races. The number of marriages in 1901 was 2,350; the births among Europeans were 15,195 and deaths 8,480 in number; births among the rest of the population 37,376 and deaths 38,889. The number of arrivals by sea was 23,948 and departures 21,193.

The total estimated population of the colony on Jan. 1, 1901, was 2,350,000.

The revenue for the year ending June 30, 1900, was £21,065,592 from taxation, £23,669,02 from railroad and other services, £2,077,424 for railroads, £223,429 for defense, £564,306 for police and prisons, £1,917,347 for civil establishments, £2,000,000 for education. The debt of the colony on Jan. 1, 1900, amounted to £31,409,755, including £23,525,67 raised by harbor boards with a Government guarantee. The revenue of the divisional councils in 1900 amounted to £187,493, and expenditure to £268,901; debts, £23,640. The revenue of municipalities footed up £942,317, and expenditures £922,992; debts, £2,306,105.

Cape Colony in the year ending May 31, 1899, produced 2,220,847 bushels of wheat, 1,810,611 bushels of oats, 830,730 bushels of barley, 2,857,808 bushels of mealies, 2,000,000 bushels of Kaffir corn, 304,491 bushels of barley, 4,820,432 gallons of wine, 1,107,344 gallons of brandy, 35,179,900 pounds of wool, 6,707,379 pounds of mohair, 278,171 pounds of ostrich-feathers. The live stock consisted of 387,824 horses, 90,379 mules and asses, 1,263,992 sheep, 5,572,793 goats, 245,947 hogs, and 260,672 ostriches.

The total value of imports in 1900 was £19,675,336, of which £16,106,847 represent merchandise. The exports of colonial produce were valued at £7,042,358; total imports, £28,147,670. The exports of wool, £9,907,091, value of ostrich-feathers, £375,801; of wool, £837,809; of copper ore, £498,552; of Angora hair, £389,905; of hides and skins, £349,300; of gold from the Transvaal, £236,755; of coffee, £29,841; of grain and meal, £24,175. The exports of diamonds from 1887 amounted to £36,447,399.

The chief imports were food and drink of the value of £5,254,880, and and the goods and materials of the value of £4,301,331. The imports of Cape wool into Great Britain in 1900 were 37,485,754 pounds, against 84,032,536 pounds in 1899. Of the total value of imports in 1900 Great Britain sent £11,062,428, and received £8,584,175 of the exports, British possessions furnished £2,471,692 of imports and took £2,389,047 of exports, foreign countries furnished £2,531,691 of imports and took £2,554,490 of exports.

The number of vessels entered from abroad at the ports in 1900 was 1,655, of 4,083,465 tons; cleared, 1,506, of 4,701,536 tons. Of those entered 1,188, of 4,300,656 tons were British, of those cleared 1,165, of 4,292,057 tons. The number of coasting-vessels entered was 1,266, of 4,006,933 tons; cleared, 1,266, of 4,169,581 tons.

The shipping registered in the naval register was received on Jan. 1, 1901, of 5 sailing vessels, of 331 tons, and 33 steamers, of 5,810 tons.

The Government owned 2,089 miles of railroads on Jan. 1, 1901, and operated 587 miles more owned and operated by companies and 139 miles were being built by companies with a Government subsidy. The Government railroad cost £21,842,000, or £10,456 per mile. The gross earnings in 1900 were £5,220,537; expenses, £2,158,205; number of passengers carried, 13,040,414 in 1900; tons of freight, 1,270,904.

The number of letters that passed through the post-office during 1900 was 31,112,004; newspapers, 11,587,990; postal cards, 806,632; books and samples, 1,520,025; receipts for the year, £3,542,431; expenses, £3,346,779.

The telegraph-lines had a length of 7,467 miles on Jan. 1, 1891, with 2,259 miles of wires. The number of messages in 1890 was 3,665,039; receipts were £202,454, and expenses £206,986.

In Cape Colony parliamentary government was suspended during two-thirds of the period of the war and for nearly the entire time until the Union was organized, and it was practically under military rule. Parlia-
ment was prorogued from one date to another. Some of the members had been convicted by mili-
tary courts, and sentenced to death, and elected, elections were not held to fill their places because none but men of the same principles could be elected in their districts. When peace was signed a petition was signed by a large majority of the members of Parliament belonging to the Progressive party, which was the ministerial party, begging the Imperial Government to sus-
PEND the Constitution. The Premier, who had assented to the military measures of the army authorities during the war and organized the bodies of Cape volunteers for local defense and auxiliary service in the war, rejected the propo-
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een months, although the Constitution requires that twelve months shall not elapse without a session. The ministry had expended in the defense of the colony all the ordinary resources and £2,000,000 raised for railroads and harbors, and had no power to levy taxes. What the Pro-
gressives wanted was the repeal of the Constit-
tion. They proposed that the Cape should be ruled as a Crown colony until the seats could be filled, and, of such a way as to give them, the active English Imperialist party, a majority.

The petition for the suspension of the Constitu-
tion was sent before the peace was signed. It came too late to give the new Imperial government an opportunity to cover obligation the whole period. The ministry and Parliament could not ignore, how-
ever, the wrongs that many were still suffering in consequence of martial law. The Legislative Council investigated the cases of two of its members who had been punished by military tribunals and found that they had been thoroughly loyal citizens. Many persons were still confined in prison under unjust and capricious sentences. The Royal Commission, composed of Baron Alver-
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The financial indemnity bill covered a total un-
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SOUTH AFRICA.

a revenue of £10,370,000 was expected, and a surplus of £258,000. The bonds of the Free State government were sold at £74,801, for £750,000. The railroad built by Cape Colony would pay the war cost of £1,800,000. The 3,457 rebels who surrendered under the proclamation of June 11, 1900, were disfranchised for life, in addition to 2,335 others convicted by the special tribunals constituted in 1900, besides whom 1,217 were convicted who were not voters. A bill provided for raising a loan of £1,250,000 for compensating war losses, first of those not found guilty of treason, and second of those found guilty, though not such as had twice rebelled. On Nov. 4 the Government was defeated on a bill to reorganize and augment the mounted troops of the colony by 34 votes to 29. In elections to fill the vacant seats Progressives were elected. The Afrikaner Bond changed its name to the South African party, and put forth as its program the realization of the unity of the different nationalities in South Africa and the federation of the South African colonies with due regard to their individual interests and the supremacy of the British Crown. Martial law was repealed on Sept. 17, and at the same time the peace preservation act was proclaimed, enabling the Government to control the possession of arms and requiring the registration of all arms and ammunition. In the new colonies the importation of arms was forbidden; only specially licensed persons could have them, those needing them for defense against natives; and no dealer could keep more than a certain small stock of ammunition. One of the causes of quarrel between the Premier and his party was that he would not duplicate this legislation in Cape Colony and introduce more stringent treason and sedition laws, but he insisted that existing laws were sufficient.

Bechuanaland.—The native territory west of the Transvaal and east of German Southwest Africa, extending northward to the Zambesi, belonging to the BAMANGWato under Khama and the BAKHATHA under Lenche, the BAKWENs under SEBELE, the Bangwakatse under Bathoen, and the BAMBALI under Ikanye, is a British protectorate over 110,476 square miles, or a total of 10,024,400 square miles. There is a European mounted police of 12 officers and 115 men and a native police of 66 men. The native population is about 143,800. The Resident Commissioner is W. SmitTHE. When British Bechuanaland, including the suppressed Boer Republic of the Orange Free State, was made a British protectorate in 1888, annexed to Cape Colony in 1874, and taken direct- ly under the authority of the Crown in 1884. It is administered by a Resident Commissioner, H. C. Sleoddy, under the High Commissioner's direction. Chiefs allied to the family of Mohesh hold authority in the wards into which the 7 districts are subdivided. European settlement on the land is not allowed. There were 674 European officials and servants, 2,063,500 natives, who grow meailes, wheat, and a variety of live stock. There were 81, 194 horses and 320,934 cattle. The police force consists of 21 Europeans and 238 natives. The revenue in 1901 was £2,258,000, including £13,000 in duty on tobacco, £11,000 in custom duties, £8,000 in license duties, and £5,000 in other taxes. The exports, consisting of grain, wool, horses, and cattle, amounted to £38,147.

The British authorities had difficulties with the Basutos during and after the war. The young chief, Joel, offered to make common cause with the Boers, but was told it was a white man's war. He nevertheless gave them valuable assistance in food and horses, and his men served them on their farms and in the field. After the war the British proposed to try him for treason. Lethorodi, the paramount chief, demurred, but he was arrested and tried at Maseru, and sentenced to pay a fine in cattle and spend a year in prison.
natives. The live stock of the Europeans consisted of 29,222 horses, 202,501 cattle, 530,754 sheep, and 202,501 goats; the natives numbered 54,874 horses, 145,409 cattle, 55,701 sheep, and 331,554 goats. The output of coal for 1900 was 241,530 tons, only from June, when the British recaptured the mines. Iron-mining has begun, and copper has been found in the north. The total value of imports in 1900 was £3,789,104, and of exports £4,172,097. About 63 per cent. of the imports come from Great Britain, but in 1900 only 17 per cent. of the exports went to Great Britain. The imports of machinery were £268,062; of dry-goods, £209,344; of clothing, £374,711; of iron manufactures and hardware, £208,342; of flour and grain, £287,707; of wine, ale, and spirits, £220,000; of leather manufactures, £191,071; of cotton goods, £85,800; of woolen goods, £40,136. The number of merchant vessels entered in 1900 was 664, of 1,318,885 tons; cleared, 641, of 1,296,488 tons. Of those entered 106, of 165,887 tons, came direct from Great Britain and 354, of 906,500 tons, came from Cape Colony, of which 330, of 786,483 tons, came from Great Britain; of those cleared 53, of 111,255 tons, sailed direct for Great Britain and 254, of 567,863 tons, for Cape Colony. The length of the railway in 1902 was 832 miles, all operated by the Government, and all, except 60 miles in Zululand, owned by the Government. The main line from Durban through Pietermaritzburg to the naval base at Tugela Mills, connects the line to Johannesburg and Pretoria. The branch from Glencoe to the Buffalo river is to be extended to Vryheid. The capital cost of the railway was £7,056,291. The receipts in 1900 were £1,242,280, and expenses £901,069. The net receipts were equal to 4.49 per cent. on the capital.

The British Government, according to the request of the Natal Parliament, annexed to Natal the Transvaal districts of Vryheid and Utrecht, but refused to add the districts of Piet Retief and Wakkerstroom and the Harrismith and Vrede districts of the Orange River Colony.

Orange River Colony.—The annexation of the Orange Free State to the British Empire under the name of the Orange River Colony was proclaimed on May 24, 1900, after the occupation of Bloemfontein, the capital, by the British forces. The entire territory was still under military administration in the beginning of 1902. The British Government promised to restore civil government as soon as circumstances would permit. Lord Milner was appointed Governor of both the Orange River Colony and the Transvaal, and Brig.-Gen. H. J. Goold-Adams Lieutenant-Governor under him of the Orange River Colony.

The area of the colony when the annexation was declared was 48,326 square miles, with a population in 1891 of 77,716 whites and 129,787 natives. Of the whites 10,761 were farmers, and of the colored 41,817 were servants of the whites. The normal revenue in time of peace was estimated by Sir David Barbour, appointed by the British Government to investigate the financial resources of the conquered territories, at £740,000, and expenditure at £494,000. The British administrators calculated for 1902, on the basis of a restoration of peace, on a revenue of £756,200, and an expenditure of £691,140, including £300,000 for the South African constabulary. The receipts of the British revenue from May 24, 1900, to June 30, 1901, were £402,925; but the civil revenue was £301,800, of which £151,000 came from customs, £43,630 from the post-office, £29,000 from the mining returns, and £10,100 from the native poll-tax. The total expenditure for the same period was £356,038, the expenditure for purely civil purposes £217,574.

The revenue of the Boer Government in 1898 was £799,758, including £408,578 from railways, and the expenditure was £565,712, including £508,475 for railways. For 1899 the revenue was estimated at £566,914, and expenditure at £248,523. The Government in 1899 had a debt of £30,000, exclusive of the debt to the Cape Government for building the railroad, while it owned £70,000 of stock in the national bank and possessed telegraphs, etc., worth £496,381. The Government lands had an area of 565,000 acres. The Boers raised sheep, horses, cattle, and ostriches and cultivated grain, although much of the land is too dry for agriculture. There are extensive coal-fields and diamond-fields which yielded £1,508,681 in 1898. The Transvaal is settled by colonists in farms in the conquered districts and furnished them with implements, stores, and breeding stock with the object of checking Boer influence and restocking the country with animals. Large tracts in the Ficksburg and Thaba Nchu districts were acquired with the object of dividing them among British settlers.

The total value of the imports in the Cape Colony or Natal except cereals from Bauroland, which are consumed or re-exported to the Transvaal, as also Bauro cattle and tobacco, is £3,788,555 from Bauroland, and £485,655 from the South African Republic. Of £1,923,425 of exports in 1898 the value of £849,540 came from Cape Colony, £229,029 from Bauroland, and £485,655 from the South African Republic. Of £1,923,425 of exports £910,298 went to the South African Republic, £280,467 to Cape Colony, £147,177 to Natal, and £45,495 to Bauroland. The length of the Government railroad, traversing the country and connecting the Transvaal mines and towns with the Cape network, is 392 miles, built at a cost of £2,771,945. The telegraphs in the colony have 1,489 miles of line, with 1,750 miles of wire, besides 420 miles of line and 1,119 miles of wire on the railroad.

The Transvaal.—The South African Republic after the occupation of Pretoria by British troops was declared on Sept. 1, 1900, to be annexed to the British dominions under the name of the Transvaal Colony. Sir Alfred Milner, created Lord Milner, was appointed Governor-in-Chief of the Transvaal and the Orange River Colony, being replaced as Governor and Commander-in-Chief of Cape Colony by the Governor of Natal, but retaining the office of High Commissioner for British South Africa.

The area of the Transvaal is 119,139 square miles. The imperfect census of 1896 gave the population as 245,297 whites and the colored population was estimated at 622,500. An official estimate of 1898 made the colored population 748,739, raising the total to 1,394,186. Pretoria, the capital, had about 10,000 inhabitants at the time of the census. The capital was 1,022,078, of whom 50,907 were white, 42,533 Kafirs, 4,807 Indians and Chinese, 993 Malays, and 2,879 of mixed race. The revenue of the Republican Government in 1899 was £3,963,560, and expenditure £3,971,473. For 1899 the revenue was estimated at £3,087,362, and expenditure at £3,051,239. Sir David Barbour, in a report of 1899 on the finances of the Transvaal Colony, estimated the future revenue at £3,341,920, and expenditure at £2,907,121. From customs a revenue of £1,100,000 is expected to be obtained from a tax of 1s. 6d. per cwt. on tobacco from the Netherlands Railroad Company's line
to Delagoa Bay, £375,000; from prospecting and investigating, £35,000. From the post-office, £135,000; from taxes on natives, £110,000.

The Boer Government imposed a poll-tax of £2 on all adult male natives except those living with white people as servants, also a native hut-tax of 10s. The chief expenditures as estimated by Sir D. Barbour were £262,788 for public works, £383,480 for police and prisons, £344,220 for posts and telegraphs, and £200,000 for education.

The receipts under British administration, with balances left in bank by the late Government, were almost sufficient to defray the expenses of civil administration, exclusive of the Boer concentration camps and the constabulary, so that from an advance of £1,500,000 voted by the British Parliament for the Transvaal and Orange River Colonies only £250,000 were required by the Transvaal. The debt left by the South African Republic amounted to £2,863,394 on Jan. 1, 1899. The Government owns lands in the gold-fields of the Rand and the whole of the Barberton gold-fields, valued at millions of pounds sterling.

Several parts of the Transvaal are well adapted for agriculture, but not more than 50,000 acres are cultivated, and a bulk of vegetable foods must be imported. Cattle and sheep were kept on the great farms of the Boers. There were 12,245 farms in 1898, of which 2,861 belonged to the Government, 4,102 to the hands of non-resident owners and companies, and 7,772 were owned by Boers. Gold was first produced in the Transvaal in 1884 in small amounts for the first year, a total production of £947,415 in 1888, and rising to £16,044,135 in 1895, after which the war interrupted regular mining operations. The entire production up to the end of that year was £80,845,000. In 1899 the mines of the Witwatersrand produced 4,086,066 ounces. From the beginning of October, 1899, to the end of March, 1900, the Republican Government operated the Rand mines, taking out 251,677 ounces in the first quarter of 1900. Then mining ceased until operations were resumed in May, 1901, by 8 companies, which in six months extracted only £848,012 worth.

New regulations framed by the British authorities are intended to protect the native laborers from fraud and oppression, and to suppress the illegal liquor traffic. Labor agents and overseers of many farms are obliged to take out licenses. The passport regulations have been made tighter for natives, and labor contracts can not be made with them unless approved by the native commissioner for a longer period than one year. There were about 13,000 whites and 77,000 natives employed in the mines of the Witwatersrand in the beginning of 1899.

Diamonds are found near Pretoria and in other parts of the Transvaal. In 1898 the value of £43,730 was produced. Copper, silver, and lead exist, and good coal is mined in the neighborhood of the gold-fields. In 1898 the output was 1,907,808 tons, valued at £608,348.

The dutiable imports in 1898 were valued at £10,632,985. In 1899 the value was £3,535,340; in the year ending June 30, 1900, until the war interrupted trade, £737,356. Under the British administration the imports for the first six months of 1901 were £2,143,192, exclusive of supplies for the army and munitions of war, and supplies for the railways or the Government. The chief articles were dry-goods, clothing, boots and shoes, preserved meats, groceries, flour, butter, condensed milk, sugar, preserved fruits, wines, mead, wicker, cloth, hats, cigarettes, cigars, and smoking tobacco.

The length of railroads completed in the Transvaal in 1898 was 774 miles, and 270 miles were under construction. The gauge of the lines is of 2,600 miles, with 6,636 miles of wire.

The Rand mines were opened gradually as the military authorities allowed the refugees from Johannesburgh to return. Permission was given for 450 stamps before the end of 1901, and in July 2,000 stamps were working. During the war the Boer Government operated some of the mines until their evacuation of Johannesburgh, and from these the veins and trains the Boers obtained £2,700,000 of gold, besides which the mines sustained direct losses from the war amounting to £3,400,000. Capital did not flow readily to Johannesburg, and there was a fall in mining shares after the peace and the reopening of the mines owing to uncertainty as to the part of the war debt that the British Government meant to make the mining industry bear. The cost of living was higher than it ever had been. The railroad tariffs, customs duties, and other taxes were as high or higher. Before the war the Republican Government imposed a direct tax of 5 per cent. on the profits of mines, promising to refund excise duties, custom duties, and customs duties. Lord Milner abolished duties on building materials, machinery, and other articles needed for the rapid development of the country, and American machinery, structural steel, and timber were sold in quantities auguring a recovery of enterprise. The labor difficulty affected mining more than anything else. The black laborers that were scattered were scattered. The chiefs in the northern Transvaal furnished some. The Basutos were employed mostly in transport. The Government employed other blacks on the railroads that were being constructed to Thaba Nchu and Vereeniging. The mines obtained no considerable supply until an arrangement was made with the Portuguese authorities for natives from the coast territories. On inquiry it was found that there were not half enough blacks in all South Africa for the mines, farms, and other industries. White labor was tried in some mines, but was found unprofitable.

The restoration of theburghers to their farms with their families in the concentration camps was a slow business. The Boers had many complaints to make of the way in which the burghers were treated. Tools, stock, material for houses, seed, and provisions were to be furnished from the fund of £3,000,000, but this was administered in a way that did them little good. Every effort was made to keep the burghers from spreading out and to keep them on their farms. If they were found by the military authorities to have spread out, they were told that they must return to their farms, and if they refused, the burghers were not to be given the right to vote. The burghers' rights of property, etc., were taken away, and the burghers were not allowed to be engaged in any occupation except farming.

Martial law was not withdrawn until Nov. 19, and it was succeeded by an indemnity and peace preservation act confirming all acts and sentences of the courts-martial, empowering the authorities to arrest and detain without a warrant persons suspected of sedition and to expel from the country persons considered dangerous to the peace, and requiring permits to be taken out by anyone wishing to enter the country, which would not be granted to burghers unless they take the oath of allegiance or make the equivalent declaration. The Boer generals complained to Mr. Chamberlain that under the peace convention the oath of allegiance could not be required. The Boers of the byzouner class who had no land or capital of their own, by arrangement with the landowners, received small farms on lease and were assisted by the Government, laborers, and farm animals. The Transvaal was nearly demobilized of live stock excepting the remaining draft-ozen used in transport. Cattle
for restocking the farms were brought from Madagascar and other countries by the Government, and Boers were allowed to go to Cape Colony to buy breeding stock. Lord Milner had a plan for settling British farmers on irrigated farms of 20 acres or more and grazing farms of 2,000 or 3,000 acres. Excepting some of the discharged soldiers, no settlers were found suitable to form colonies, nor could they be started until large sums had been spent on irrigation works for the agricultural colonies. The Government possessed large tracts of land and also many town lots. The most valuable undeveloped mining lands in the country belonged to the Government. Those whose capabilities were known had been promised by the Government to the miners, to be apportioned by lot. The lands next to the Rand mines under which the ledges ran far below the surface were promised to the mining companies at a fixed price. Mr. Chamberlain disappointed the miners and prospectors when he intimated that the Government would not, like the Republican Government, give away such valuable assets in the future, and the opinion of the mining community was that unless prospectors were allowed to explore the territory, and pay a pegging fee, allowed to peg claims no one would explore new territory for gold. The Government increased the tax on mining profits from 5 per cent. to 10 per cent. Lord Milner was perplexed by the financial difficulties that beset him. He endeavored to induce the Cape and Natal governments to abolish the duties on mealies and other foodstuffs imported from the United States, and to free the shipping of the Cape Colony from an overseas competition and also to reduce their railroad tariffs. When they refused he intimated to the Cape Commissioner of Public Works that the military worries might be restored in Cape Colony. The freight in the Transvaal sections of the railroads is twice as high as on the Cape and Natal railroads, and he could not reduce that without a deficit in his budget. The South African freights are the main cause of the dearness of living in the Transvaal. Goods transported 1,500 miles in the United States and thence by steamer pay rates for shipping from Johannesburg than the rail and ocean freights to Delagoa Bay. The estimate of revenue for the Transvaal for the year ending June 30, 1903, is 10.3 million pounds sterling. Sir Arthur Lawley was appointed Lieutenant-Governor of the Transvaal under the High Commissioner and entered upon office on Sept. 1, 1903.

The Territory of the British South Africa Company, originally £1,000,000, has been successively increased to £4,375,000 of stock and £1,250,000 of debentures. The revenue, derived from mining, trading, and professional licenses, business stands, and the postal and telegraph services, amounted to £469,000, and expenditures, including supplementary estimates, to £735,589. The regions covered by the charter of the British South Africa Company have a total area of over 1,000,000 square miles, of which 300,000 lie south and 700,000 north of the Zambezi river. The division bounded by 22° of south latitude and the Limpopo on the south and the Zambezi on the north, known as Southern Rhodesia, embracing Matabeleland and Mashonaland, has an area of 144,000 square miles. The population of Matabeleland in May, 1901, comprised 4,021 Europeans, 187 Asians, and 328,729 natives. The population of Mashonaland comprised 7,011 Europeans, 900 Asiatics and telegraph systems of Cape Colony. The sphere over which the administrative powers and commercial privileges were extended, after the agreement to which Portugal, yielding to superior force, subscribed on June 11, 1891, embraced all the regions north of the Transvaal and Cape Colony and south of the Congo State and German East Africa, west of the territories of Mozambique and Lourenço Marques left to Portugal and east of the Portuguese colony of Angola and German Damaraland and Namaland. British Bechuana-land was subsequently annexed to Cape Colony, the British Central African Protectorate obtained the right to retain its separate administration, and the Bechuana-land Protectorate was placed under the immediate direction of the High Commissioner. On Nov. 25, 1898, after Dr. Jameson's raid from Matabeleland into the Transvaal, a new scheme of government was promulgated. A Resident Commissioner is appointed by the Secretary of State for the Colonies, and to assist the company's administrator there is an Executive Council, consisting of the Resident Commissioner, the administrators of the different divisions, his subordinates, and 4 members appointed for three years by the company with the approval of the Secretary of State. A Legislative Council was created, consisting of the company's council, the Executive Council, 5 members appointed by the company and approved by the Secretary of State, and 4 members elected by the registered electors. The life of the Legislative Council is three years unless it is dissolved previously. It has power to pass ordinances which have the effect of law when approved by the Resident Commissioner, but may be vetted by an elected assembly within a year. Financial estimates for each year are submitted to the Legislative Council by the company's administrator, and when passed must have the approval of the Resident Commissioner. Judges are nominated by the company and confirmed by the Secretary of State. Natives are on an equal political footing with whites, excepting that no arms, ammunition, or liquor may be sold to them. A secretary for native affairs looks after their interests under the direction of the Resident Commissioner, who has entire control over the military police. If the carriage to Johannesburg than the rail and ocean freights to Delagoa Bay. The estimate of revenue for the Transvaal for the year ending June 30, 1903, is 10.3 million pounds sterling. Sir Arthur Lawley was appointed Lieutenant-Governor of the Transvaal under the High Commissioner and entered upon office on Sept. 1, 1903.

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The Rhodesian Railroad, which joins the Cape system at Vryburg and runs through Bechuana-
land and Mashonaland to Buluwayo, has been taken over by the Cape Government. It will be
extended by the company to the Wankie coal-mines, and thence to the Victoria Falls of the
Zambesi and northward to Lake Tanganyika. A branch will run southward to Gwanda, and
thence to Tuli. A railroad built by the Mashonan-
land Railway Company from Beira across Portugu-
ese country to Umtali has been completed to
Salisbury, and a line is being built from that
town, which is the seat of the administration,
through Hartley and Gwelo to Buluwayo. A
railroad 75 miles long connects the mines of Lo-
mogundu with Salisbury.

The post-office in 1901 carried 661,444 South
African letters and postal cards and 279,921 for
planters and missionaries. The number of new
books, and parcels, £28,783; registered packets, 31,889. The postal revenue was £167,730; expend-
titure, £23,237.

The length of telegraphs in Rhodesia on April
1, 1901, was 3,564 miles, with 5,215 miles of wire.
Of the African transcontinental line, which has
reached Blantyre in British Central Africa and
been carried to Tanganyika and along its coast
through German territory to Ujiji, and is being
extended to the Nile north, was 1,308 miles.
There were 185,406 telegrams received and 211,207
dispatched in 1901; receipts, £24,653; expenses,
£27,321; receipts from telephones, £4,230.

The undeveloped region north of the Zambesi
is divided into Northwestern Rhodesia, embracing
the native kingdom of Barotseland, and North-
eastern Rhodesia. Northeastern Rhodesia, compris-
ing the region lying between the lakes Tan-
ganyika, Nyasa, Mweru, and Bangweelo has an
area of 129,000 square miles, with a population
exceeding 300,000. There were 165 British
residents in 1901. It is divided into the districts of
Tanganyika, Mweru. Awamba, Luapala, Kafue,
Central Africa Protectorate, and North Loangwa.
The seat of administration is Fort Jameson, on
the Tanganyika plateau. The forces of the Brit-
ish Central Africa Protectorate preserve order.
Settlers have begun to plant coffee and to utilize
the abundant fiber-plants which grow wild. Rub-
er and ivory are the chief exports at present.
Coal and gold have been discovered. In
Barotseland the seat of the administration
is at Victoria Falls. There are 6 stations alto-
gether. Col. Colin Harding has organized a na-
tive police force. The slave-trade has been sup-
pressed and the traffic in liquor is regulated, with
the concurrence of Lewanika, the Barotse king,
whose kraal is at Lealui.

Central Africa Protectorate.—The British
Central Africa Protectorate, constituted on May
14, 1891, is administered by a Royal Commissi-
oner under instructions from the Secretary of
State for Foreign Affairs. The area is 42,217
square miles; the population is about 900,000. The
population is about 900,000. There were 450 Eu-
ropians and 250 East Indians in 1901. Europeans
cultivate coffee in the Blantyre province, export-
ing 3,000 pounds in 1899. Rice is grown with success, and wheat has been introduced. Horses thrive
in the highlands. The revenue collected in 1900
was £47,077, and expenditure £66,366, the de-
ficiency being supplied by a grant from the
Imperial Government. The revenue in 1901 was
£49,216, and expenditure £72,386. The mil-
tary force maintained to preserve order and com-
bat the slave-trade consists of 215 Sikhs and one
of the battalions of the native Central Africa
regiment. The other battalion of which has served
in Mauritius and Somaliland and in active oper-
a tions on the west coast of Africa. There is also
a police force of 200 men. The Gwendeni, of
350 tons, and two other gunboats are maintained
on the upper Shire and Lake Nyasa, and British
gunboats by arrangement with the Portuguese
Government patrol the lower Shire and the Zamb-
bei. At Chinde, the port at the mouth of the
Zambesi, merchandise is transshipped to and from
river steamers free of duty in the British conces-
sion. A railroad is being constructed from Chi-
romo to Blantyre. The imports, consisting of cot-
rn~s, machinery, provisions, hardware, and
agricultural implements, rose steadily from £78,6-
63 in 1897 to £176,000 in 1900; the exports, con-
sisting of ivory, coffee, and rubber, from £23,299
to £79,000. Coffee, owing to a decline in price
and failure of transport, fell off in the latter
year, and still more in 1902. The value of imports was £146,063 and of exports £38,722.
The transit trade was £30,310 in 1900 and £51,333 in 1901.

Portuguese Possessions.—The Mozambique
and Loanda territories, now separated by British
Central Africa and Rhodesia, are nearly all that
remains of the former colonial empire of Portu-
gal. Portuguese East Africa, divided into the
districts of Mozambique, Zambesi, and Lourenço
Marques, the last including the Inhambane and
Gaza territories, has a total area of 301,000
square miles, with about 3,120,000 inhabitants.
The chartered Nyassa Company has a commercial
monopoly and administrative authority over the
northern part lying between the Rovuma and
Lurio rivers and Lake Nyasa. The Mozambique
Company has sovereign rights till 1941 over Ma-
sica and Sofala. The Zambesi Company conducts
agricultural and mining enterprises. Fishing
operations on the Zambezi river. The Inhambane
Company failed to utilize its privileges in the
district conceded to it and forfeited its charter.
The Portuguese Government keeps up a military
force of 3,004 men, of whom 2,468 are natives,
reducing it to 2,250 when there are no disturb-
ances. The local revenue in 1902 was estimated
at 2,937,545 metires, which the metropolitan Gov-
ernment has to supplement to provide for a total
expenditure of 3,060,301 milires. The imports of
the territories under Government administration
were 5,829,980 milires in value, and exports 5,836,404 milires; imports of the Mozambique
Company were 4,737,723 milires, and exports 270,601
milires; imports of the Nyassa Company were 499,896
milires, and exports 320,980 milires; total im-
ports, 11,086,999 milires; total exports, 6,427,065
milires; transit trade, 6,283,867 milires. The port
of Mozambique had in 1900 a population of 285
Europeans, 226 Asians, and 5,000 natives; Chi-
dine, 218 Europeans and 1,300 natives; Beira,
1,438 Europeans and 2,000 natives; Inhambane,
100 Europeans, 250 Asians, and 3,000 natives;
Lourenço Marques, 5,120 Europeans and 3,000
natives. The imports at Lourenço Marques in 1898
were £751,831; exports, £16,600; transit
trade, £1,770,682; tonnage entered, 1,032,543. At
Beira in 1900 the imports were £1,071,881; ex-
ports, £20,133; transit trade, £296,402; tonnage
entered, 726,725. At Quelimane imports were
£117,967, and exports £73,857; tonnage entered,

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102,956. At Inhambane imports were £200,557; exports, £230,800; transit trade, £137,205; tonnage entered, 41,000. At Chinde the transit trade amounted to £99,410. At Mozambique the imports were £200,381; exports, £222,434; tonnage entered, 206,238. The goods consist of cotton goods, hardware, and liquors. The exports are rubber, ores, ivory, and wax. The gold-fields in Manicaland have been prospected by British and other miners, and their claims are awaiting transport facilities before they can be developed. There were 23 steamboats, of 742 tons, and 105 barges, of 3,320 tons, plying on the Zambezi and Shire rivers in 1900.

The Delagoa Bay Railroad has a length of 57 miles in Portuguese territory to the Transvaal border, and from there to Pretoria, 200 miles. The Beira Railroad runs for 78 miles in Portuguese territory and is continued to Salisbury. The telegraph lines in the colony have a length of 1,850 miles, connecting with those of the Transvaal and Rhodesia. Brig.-Gen. Raphael C. Sorvoj was Governor-General of Portuguese East Africa in 1902.

The colony of Angola has an area of 484,500 square miles and a population estimated at 4,119,000, of whom 861,000 are whites, including 91,000 whites engaged in commercial, mining, and industrial privileges. Copper, iron, petroleum, salt, and gold exist. The chief exports are rubber, coffee, wax, vegetable oils, ivory, cattle, and dried fish. The coconut-palm flourishes. Sugar-cane is raised for the distillation of rum. The total value of imports in 1900 was £5,267,238, and of exports £5,369,818, 107 miles.

The number of merchant vessels that called at the ports of Ambriz, Loanda, Benguela, and Mossamedes in 1900 was 346, of 365,146 tons. There are 244 miles of railroad and 1,170 miles of telegraph lines.

German Southwest Africa.—The German Southwest Africa Protectorate has an area estimated at 325,000 square, with a population of about 200,000 Hottentots, Bushmen, Damara, and Bantu. The number of Europeans on Jan. 1, 1901, was 5,398, of whom 2,104 were Germans, including 761 soldiers, besides whom a native force has been organized and trained. The Governor in 1902 was Col. Leutwein. A German company has commercial and mining privileges in the coastal districts of Namquand, Damaraland, and the north equal to German company has obtained concessions. Refugee Boers have settled on grazing lands in the northeast. The German Government offers to advance £4,000 marks for an interest to establish German settlers on the land. The Damaras have great herds of cattle and flocks of sheep and goats. Johannesberg in 1889 amounted to 8,641,000 marks; the copper, 1,390,478 tons, and 27,684,800 marks, to which the Imperial Government contributed £7,684,800.

SOUTH CAROLINA. (See under United States.)

SOUTH CAROLINA INTERSTATE AND WEST INDIAN EXPOSITION. This was held in Charleston, S. C., from Dec. 1, 1901, to June 1, 1902. It had for its special objects the establishment of new industries and commerce in the South; the extension into the Porto Rico and the West Indies; the development of the American culture of silk and tea; the promotion of Southern manufactures of cotton and iron; the establishment of new steamers and the building of the central seaport of the great Southeast; and the presentation to the world of the resources and attractions of the territory along the Southern seaboard.

Organization.—A resolution approving the project of holding such an exposition in Charleston was passed by the General Assembly of South Carolina in January, 1900, and a year later an act appropriating $50,000 for the purpose of erecting a State building on the exposition grounds and making a complete display of the products and resources of the State was enacted. Soon afterward the Governor of the State appointed a special commission of five members to direct the State exhibit. Meanwhile, the City Council of Charleston appropriated $50,000 in aid of the exposition. The General Exposition Company, with a capital stock of $250,000, of which the officers were as follows: President, F. W. Wagner; vice-president, W. H. Welch; treasurer, Samuel H. Wilson; director-general, John H. Averitt; assistant director-general, Algar M. Wheeler; general counselor, John F. Ficken; general auditor, P. J. Balguerie; manager of publicity and promotion, J. C. Hempfl; manager of exhibits and concessions, E. L. Tiesler, Jr.; manager of law and legislation, John F. Ficken; manager of admissions and collections, H. J. Fleming; manager of negro department, Booker T. Washington; manager of live-stock department, George F. Weston; president of woman's department, Mrs. Sarah Calhoun Simonds.

Location.—A tract of 250 acres about two miles from the business center of Charleston was chosen as the site of the exposition. It included the old Washington race-course and an old plantation settled in colonial days, which became the property of the president of the Exposition Company. The slightly rolling country lent itself readily to varied and artistic effects, and the live-oaks without formed a feature that was specially attractive. The groves and green slopes of the Wagnerser farm provided a permanent background for the architect and landscape gardener to work upon. The grounds were easily accessible from the city by the electric railway system, and on the west side by means of Ashley river, to which the grounds extended.

Buildings.—Owing to the happy shape of the irregular tract constituting the site, it was possible to divide the grounds into a Natural Section and an Art Section, with the Administration Building marking the separation of the two. In the Natural Section were the Art Palace, the Transportation and Machinery Building, the Woman's Building, and the Negro Building, all shaded by century-old live-oaks, besides the Avenue of States and Cities, including the State buildings from New York, Pennsylvania, Maryland, Illinois, Missouri, Louisiana, Minnesota, Wisconsin, Michigan, Illinois, Wisconsin, and the Administration Building, covering 30 acres, over which extended the main bridge with its electrical booth and fountain. To the west were the breakwater and the bay, devoted to the fisheries exhibit made by the Government. To the east and south of the Administration...
THE MUSIC-STAND.

A SECTION OF THE NORTH CAROLINA BUILDING.
SOUTH CAROLINA INTERSTATE AND WEST INDIAN EXPOSITION

The Auditorium.

THE AUDITORIUM.

tration Building was the Art Section, in which were housed the buildings. These were designed by Bradford L. Gilbert, who was architect in chief of the exposition, and were constructed of strong timber framework, with such iron as was needed for stiffness and additional strength, and the entire exposed surfaces were covered with staff, the predominating color of which was a soft ivory, with white trimmings, and in some instances a color enrichment in shades of red and orange. The color tint used led to the designation of the grounds and building as the "Ivory City." The most imposing building on the grounds was the Cotton Palace, which had a façade 250 feet long and a dome rising to a height of 100 feet, while the floor space was 50,000 square feet. It was connected on either side with the Palace of Commerce and the Palace of Agriculture, two splendid buildings of lesser dimensions but similar architecture, by means of curved colonnades, broken by four exedra of artistic design on either side. These colonnades and exedra contained many of the various exhibits. The three buildings, with colonnades, formed the Court of Palaces, and from an architectural standpoint was the most striking feature of the exposition. The pediments and gables, red-tiled roofs and turrets, were in a typically Southern style of architecture. The motif was Spanish-American, with huge masses, simple and strong contour and outlines, with enrichments of terraces and sculpture at various entrances and initial points. In front of the Palace was a court, or patio, filled with tropical plants and enriched by fountains, and included the Sunken Garden with its lake. The Administration Building stood at the entrance of the grounds and covered about 15,000 square feet. It was composed of a central tower and two flanking wings placed at nearly right angles, at the extreme end of which were pylons, connected with the main building by a covered way. These covered ways formed the entrances to and from the grounds. The entire length of the building and entrances was more than 400 feet. The central dome and rotunda was 75 feet in diameter, and extended about 40 feet above the roof, to a height of about 75 feet above the ground. The striking feature of this building was a great round balcony, which projected boldly into the grounds. Opposite was the building devoted to Mines and Forestry, which was circular, and was designed after one of the old palaces of Spain. It was one story high, with windows high above the ground, deeply recessed, giving restful, shadowy effects to the general design. In this building were shown the products of the mine and forest, both in the natural and the manufactured state. To the left of the Administration Building, and at the northern end was the Auditorium, capable of seating about 4,000 persons. The outside of the building toward the Court was circular, and the decorations were symbolical of the uses for which the building was designed. The acoustics received considerable attention, and one of the largest organs ever constructed was built for this exposition.

In the Natural Section, to the west of the Administration Building, and on the north side of Lake Juanita, was the Transportation Building, a long, low structure, with a deep roof covered with Spanish tile, having Spanish turrets and columns. The design was massive, though simple, and the entire ornamentation of the building was massed on the gable above and on either side of the building, which showed the graceful curves of the Spanish Renaissance style of architecture. Still westward was the Machinery Building, also on the north side of Lake Juanita. It was likewise long and low, with a loggia consisting of many arches and columns, simple yet massive in outline, most of the ornamentation being confined to a central porch, which formed the entrance, and above it a gable presented the picturesque curves of the Spanish Renaissance type. On the south side of the lake, and west of the Administration Building, was the Art Palace, of purely classical design and entirely of brick. It was 140 feet long and 50 feet wide, and the height of the interior walls was 30 feet. A very large skylight, 24 feet wide, extended the entire length of the building, giving ample light to display the art works. Four groups in the Dewey Arch, originally erected in New York city—War, Peace, The Army, and The Navy—adorned the exterior on the east and west. The Negro Building, after architectural features of the Spanish Renaissance order, of a strongly Mexican mission type, was in the western part of the grounds. The building resembled the letter H in general outline, with two wings and cupolas, and contained 12,000 square feet of flooring. The Woman's Building was a good specimen of colonial architecture, and was once the home of William Lowndes, the statesman of South Carolina, and the headquarters of Sir Henry Clinton in the war of the Revolution. It was at the extreme west of the grounds on Ashley river. It was built of black cypress and cedar, with fine wainscoting and panel walls, and the high mantels and stucco walls of the period. It was of special interest, owing to the large historical collections that were shown in it by the Society of the Colonial Dames.

In the Natural Section were the State buildings, the first of which, after passing the Administration Building, was that erected by Pennsylvania. In general outline it resembled the Administration Building, having the same projecting balcony, and being also in the Spanish Renaissance style of architecture. It was larger, however, being 150 feet long by 80 feet wide, with a half-circular court and piazza 12 feet wide. There were four square towers, on which the staff detail was very elaborate, and the cost of arms of Pennsylvania was above the entrance. It cost $35,000. The Maryland Building, on the shore of Lake Juanita, was of pure colonial design, with wide piazza, tall columns, and an ample hall. The color effects of the main loggia were very rich and fine, and the interior complete down to the smallest detail. It cost $25,000. The New York Building was of the Spanish Renaissance style, with a patio or open court filled with tropical plants. The corners and main pediments of the building were en-
riched by beautiful columns and cloisters about 30 feet in height, supporting wide overhanging roofs covered with Spanish tile. A wide piazza at the back overhung Lake Juanita, and was shaded by the large live-oaks. Its cost was $15,000. The Illinois Building was in the colonial style, with a wide and many-columned piazza and moss-green shingled roof. It was in the western part of the grounds, and cost $5,000. The building was that erected by Philadelphia, with a square Independence Hall tower, round dome, and restral columns, in which was preserved the Liberty Bell, lent to Charleston during the exposition. Cincinnati had a modest building of one story, with a two-story tower, which was surrounded on three sides by an arcade veranda and covered by a roof of deep-red tile. It contained numerous attractive exhibits, lent by the manufacturers of Cincinnati. Among the minor larger buildings were the buildings devoted to the interests of Cuba, Porto Rico, and Guatemala.

Statuary.—The buildings and grounds of the Charleston Exposition were generously adorned with mural decorations and statuary. The former were in stone, and the latter in stone, marble, and bronze, among which were those that decorated the interior of the Auditorium, and were also in the form of gargoyles, such as the striking heads seen above the doors of the Cotton Palace and the Palaces of Commerce and Agriculture. The statuary was placed at conspicuous sites in the grounds, and included six original groups, as follow: The Aztec, by Louis A. Gudebrod; The Indian, by Carl Tefft; The Negro, by Charles A. Lopez; The Colonial, by Oscar Lenz; and The Huguenot, by Miss Elsie Ward, which were in the Court of Palaces; and Mother and Child, also by Miss Elsie Ward, which stood before the Woman's Building. A low balustrade of shells and dolphins around the Sunken Garden, as well as the baby mermaid and dolphins, and the admirable New South just beyond the bandstand on the plaza, were also original groups.

Besides these, there were numerous reproductions from the antique and from modern studies. Among the exhibits were groups of Minos and Minoe exhibited (reproductions) by Pan, which formed the fountain above the Sunken Garden, and French's Washington on Horseback (which was at the Paris Exposition), which stood on a small plaza in front of the Auditorium. In the Philippines, a little grove near the Woman's Building was the Betrothal, by Amendolz, and on the Art Building the four groups War, Peace, The Army, and The Navy, from the Dewey Arch in New York.

Amusement Features.—These were in the southeastern portion of the grounds, which were designated by the now conventional title of Midway, and included an Eskimo Village, Fair Japan, and Streets of Cairo, as ethnological features. The Cuban-American Theater, Cyclorama of Manassas, Wild West and Mexican Bull-Fight, and Wild-Animal Arena, which were theatricals while the Moorish Palace and Crystal Palace, Night and Morning, and Palace of Light, were spectacular. In addition to these were the Old Mill, Temple of Fortune, Beautiful Jim Key, and the Ostrich Farm.

Opening Exercises.—Owing to the fact that Dec. 1 fell on Sunday, it was deemed advisable to postpone the opening of the exposition until Dec. 2, although on Dec. 1 exercises appropriate to the day were held, beginning with an invocation by Bishop Capers, of South Carolina, and followed by the reading of a dedication ode by George E. Sass, of Charleston, set to music by Theodore Saul, and accompanied by the First Artillery Band. Then came addresses by various clergymen, and the benediction was pronounced by Mgr. Quigley. The formal opening began with an imposing parade of military and civic bodies, which escorted the guests to the exposition grounds, after reviewing which the guests assembled in the Auditorium, where the ceremonies began, consisting of an invocation by Rev. Charles S. Vedder and addresses of welcome by F. W. Wagener, president of the Exposition Company, and M. B. McWeeney, Governor of the State. The president of the occasion was Chauncey M. Depew, who was introduced by Mayor J. A. Smith, and, after reviewing the condition of the Southern States in 1866, said that in improving it the incomparable and invincible grit and pluck of the American were never more splendidly illustrated, after which he discussed the present conditions in the South, and said that capital and enterprise are rapidly converting the vast pine forests of the South into settlements of thrift, productivity, and happiness. At the conclusion of the oration, President Wagener, by means of a wire connected with the White House in Washington, sent cordial greetings to the President of the United States, and informed him that the building of the exposition at Charleston was completed. President Roosevelt responded with "hearty congratulations upon what had been achieved, and my earnest wishes for the complete success of your undertaking. I hope it may prove of great and lasting benefit to our industries and to our commerce with the West Indies." The exposition was then formally declared to be open by the presiding official.

Exhibits.—The exhibits were classified under 22 divisions, as follow: Agriculture.—1. Agricultural and dairy products; 2. Agricultural implements and machinery; 3. Live stock; 4. Foods and their accessories; 5. Horticulture (pomology, floriculture, viticulture). Forestry, Fisheries, and Mining.—6. Forestry and forest products; 7. Fish and fisheries; 8. Mines and metallurgy. Machinery and Electricity.—9. Machinery; 10. Electricity and electrical appliances. Transportation Exhibits, Good Roads, and Ordinance.—11. Transportation exhibits and good roads exhibit, road-making machinery; 12. Ordinance and munitions of war. Manufactures and Graphic Arts.—13. Manufactures; 14. Graphic arts (metal, paper, steel and copperplate printing, photo-mechanical processes, drawing, engraving, bookbinding). Liberal Arts, Ethnology, and Archæology.—15. Liberal arts and educations in the various departments of learning, health, works, sanitation, constructive architecture, social economy, music and the drama); 16. Ethnology and archæology. Collective Exhibits.—17. State collective exhibits; 18. County collective exhibits; 20. Cuba and Porto Rico, and other islands of the West Indies; 21. Philippines and Hawaii; 22. Foreign exhibits. These divisions were again subdivided into groups, of which there were 135, and the groups into classes, of which there were 576. A Jury of Awards was called to the exhibition on April 7 to examine the exhibits, and they made awards of diplomas of the grades of gold medal, silver medal, bronze medal, and honorable mention. Selim H. Peabody was chairman of awards.

Closing Exercises.—These occurred on Saturday, May 31, which was appropriately designated as Charleston Day. Business was suspended during the afternoon, and a program was arranged consisting of a dedication of ode by George H. Sass, of Charleston, set to music by Theodore Saul, and accompanied by the First Artillery Band. Then came addresses by various clergymen, and the benediction was pronounced by Mgr. Quigley.
THE ADMINISTRATION BUILDING.

THE COTTON PALACE AND THE SUNKEN GARDEN.
the Executive Committee. These began with a prayer by the Rev. Charles S. Vedder. Then came addresses by J. Adger Smyth, Mayor of Charleston; F. W. Wagener, president of the exposition; Capt. S. G. Butler, of the United States Marines; Henry E. Dosch, commissioner from Oregon; John F. Ficken, counsel of the exposition; and others; after which resolutions presenting the thanks of the people of Charleston and the State of South Carolina to the exposition officials were offered by Wilson G. Harvey. A military parade, terminating in a sham battle, fought on the race-course, brought the exercises to an end. The buildings were closed at dusk, but the Midway Arena continued open until midnight, when taps were sounded, a salute was fired, and the lights were turned out.

Results.—At its close it was conceded that considerable good had been accomplished by holding an exposition in Charleston, but the number of exhibitors was comparatively small, and the attendance light. It was estimated that at least a million persons would visit the exposition, but at its close the returns showed that fewer than half that number had attended. This was due largely to the fact that the white population of Charleston is comparatively small, and of that number many could not afford to visit the exposition as frequently as was expected. It naturally followed, therefore, that there was a deficit at the close of the exposition, which was estimated to be about 30 per cent., and in consequence the Exposition Company went into the hands of a receiver. Subsequently, a bill was introduced into Congress asking for an appropriation of $160,000 to make good the deficit, and a bill affording relief became a law. At the close of the exposition the City Council adopted a report recommending the purchase of 70 acres of the exposition site, agreeing to pay $32,500 for it, largely in response to a sentiment that a lasting memorial of the exposition should be had as a suburban park.

Literature.—During the life of the exposition a monthly periodical, entitled The Exposition, was regularly issued, and illustrated articles, with the titles of the Ivory City, by T. Cuyler Smith, appeared in Frank Leslie’s Popular Monthly for March, 1902, and A Great Southern Exposition, by James B. Townsend, appeared in the Cosmopolitan for the same month. The illustrations in this article were furnished by Edward Bower.

SOUTH DAKOTA. (See under United States.)

SPAIN. (See under United States.)

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versities, learned societies, and the most highly assessed taxpayers. Princes of the royal family, grandees of Spain having 60,000 pesetas of income, captains-general of the army, admirals of the fleet, archbishops, and Supreme Court judges are members by right of birth or of office. There are 80 of these and 100 appointed for life, and the rest are elected for ten years or the duration of the Cortes. Members of the Congress are elected for five years by universal adult male suffrage. The reigning King is Alfonso XIII, born May 17, 1886, son of Alfonso XII and Archduchess Maria Christina of Austria, who was Queen Regent from the King’s birth until he came of age on May 17, 1902. The Cabinet constituted on March 6, 1901, was composed as follows: President of the Council, P. M. Sagasta; Minister of Foreign Affairs, the Duke of Almodovar; Minister of Justice and Worship, the Marquis Teverga; Minister of War, Gen. A. Weyler; Minister of Marine, the Duke of Veragua; Minister of Finance, Señor Urrias; Minister of the Interior, Señor Gonzalez; Minister of Public Instruction, Count Romanones; Minister of Agriculture, Industry, Commerce, and Public Works, M. Villanueva.

Area and Population.—The area of the kingdom is 197,670 square miles, including ports on the coast of Morocco having an area of 13 square miles and 11,003 inhabitants. The total population of the kingdom at the census of 1897 was 18,089,500, consisting of 8,773,730 males and 9,315,770 females. The area is cultivated in 440,000 speaking the Basque language in the Pyrenees, 60,000 Moroccos in the south, 50,000 gypsies and a comparatively small number of Jews. The legal population in 1897 was 18,928,040. The population of the chief towns was as follows: Madrid, 512,150; Barcelona, 506,580; Valencia, 204,708; Sevilla, 146,205; Malaga, 125,579; Murcia, 108,403. The number of marriages in 1900 was 161,201; of births, 827,848; of deaths, 536,716; excess of births, 91,132. The number of emigrants in 1900 was 63,020, against 33,582 in 1899.

Finances.—The ordinary revenue for 1900 was 994,818,665 pesetas, and the ordinary expenditure 906,063,503 pesetas. For 1901 the provisional returns are 967,243,491 pesetas for revenue and 930,854,193 pesetas for expenditure. The estimates for 1902 are as follows: of the revenue at 974,437,749 pesetas, of which 413,470,377 pesetas come from direct taxes on land, trade, mines, incomes from personal property, deceased legacies, public services, government salaries, etc.; 339,590,000 pesetas come from indirect taxes; 162,220,000 pesetas come from the tobacco monopoly, the lottery, the mint, etc.; 21,025,358 pesetas are revenues from, and 8,300,000 pesetas come from sales of national property; and 29,182,014 pesetas come from the public treasury. The estimates of expenditure for 1902 amount to 971,170,559 pesetas, of which 9,406,849 pesetas are for the civil list, 1,838,085 pesetas for the Cortes, 413,811,806 pesetas for the public-debt charges, 1,436,190 pesetas for courts of law, 71,780,500 pesetas for pensions, 955,883 pesetas for the City Council of Madrid, 347,590,000 pesetas for the Ministry of Foreign Affairs, 45,240,655 pesetas for the Ministry of Justice and Worship, 304,506,716 pesetas for the Ministry of War, 35,041,702 pesetas for the Ministry of Marine, 32,578,158 pesetas for the Ministry of the Interior, 43,380,100 pesetas for the Ministry of Education and Fine Arts, 74,375,820 pesetas for the Ministry of Industry, 9,527,253 pesetas for the Ministry of Finance, 30,250,820 pesetas for the collection of taxes, and 2,000,000 pesetas for colonial charges.

The public debt on June 30, 1901, amounted to
9,651,503,304 pesetas, requiring 399,005,177 pesetas for the payment of the annual interest. The annual production was 9,659,700 tons of internal and external, and 7,594,231,135 pesetas of internal debt, of which the interest charges were 41,201,685 pesetas and 321,533,506 pesetas respectively; a treasury debt of 1,027,882,545 pesetas, on which the interest is 25,276,786 pesetas; and various obligations of the treasury of amount not stated bearing 10,990,000 pesetas interest. Included in the state debt are debts of the colonies devoted upon Spain, amounting to 1,175,258,000 pesetas.

The Army.—The military forces consist of a permanent army, an active reserve, and a sedentary reserve. Any Spaniard at the age of twenty may be drawn to serve three years in the permanent army unless he buys exemption by the payment of 1,500 pesetas. The army is organized in 5 corps, of which 2 have 3 divisions, 3 have 2 divisions, and 3 have 1 division. There are, moreover, 3 divisions of infantry in the Balearic Islands, the Canary Islands, and Ceuta, and 1 brigade at Melilla. The peace strength of the regular army in 1900 was 50,273 infantry, 15,498 cavalry, 18,571 artillery, 4,836 engineers, 4,879 administrative troops, 436 royal guards, 15,281 civil guards, and 2,782 gendarmes, total, 117,774 men. The war strength was 132,000 infantry, 17,156 cavalry, 12,166 artillery, 11,027 engineers, and 11,623 administrative troops, etc.; total, 183,872 men. The annual contingent of recruits is about 80,000. The number of depot battalions is being increased, and each reserve battalion is located in a particular district, where active troops and reserves are associated in a regimental organization. By this method it is expected that the total fighting strength of the nation can be raised to 1,083,595 men. The troops are armed with Mauers of the model of 1893, having a caliber of 7 millimeters. There are 16,600 horses and 722 guns.

The Navy.—The Spanish navy after the American war had only a single battleship left, the Pelayo, of 9,900 tons, with a speed of 16 knots, having 18 inches of armor at the water-line and 19 inches on the barbettes in turrets, which are 4 9.4-inch Cañet guns, and besides these there are 9 5.5-inch guns, 287 tons of armor of 10 inches, the first-class cruisers Cataluña, Cardenal Cisneros, and Princesa de Asturias, of 7,000 tons and 13,000 horse-power, giving a 20-knot speed, though begun before the war and completed after. The Emperor Carlos V, of 9,235 tons, can make 20 knots with engines of 15,000 horse-power and carries a strong armament, consisting of 2 11-inch guns and 10 5.5-inch, 4 4.7-inch, and 2 3-inch quick-fires.

Commodities and Production.—The yield of cereals in 1900 was 2,740,700 metric tons of wheat on 3,568,700 hectares, 1,234,800 tons of barley on 1,389,000 hectares, 553,200 tons of rice on 731,000 hectares, 238,500 tons of oats on 379,200 hectares, and 600,500 tons of corn on 475,800 hectares. Of rice 195,000 tons were grown on 33,750 hectares. Vineyards covering 1,997,456 hectares yielded 68,089,000 hectoliters of wine in 1898 and 1,092,238 hectares of olive-groves produced 2,829,111 hectoliters of fruit. Oranges and hazelnuts are exported, as well as various preparations of fruits. Minor crops are esparto, flax, hemp, and beans. There were 2,046 mines in operation in 1900, producing 2,875,749 tons of silver and 2,514,545 tons of bituminous coal, 68,427 tons of anthracite, 91,133 tons of lignite, 2,747,714 tons of copper ore, 131,437 tons of lead ore, 182,015 tons of silver-lead ore, 168,248 tons of iron ore, 98,363 tons of zinc ore, 35,970 tons of manganese ore, 1,647 tons of silver ore, 64,364 tons of sulfur ore, and 450-
the Vatican, which contended that all religious orders that the Government had authorized on the same footing as those authorized in the concordat. The Government reached a modus vivendi with the Holy See, agreeing temporarily to recognize all religious of all orders authorized or unauthorized, that apply for civil inscription. The Radical members in the Cabinet were ignorant of this modus vivendi, and when it was divulged after the adjournment of the Cortes a Cabinet crisis occurred. There was a truce until the festivities of the enthronement were over. Alfonso XIII on May 17, when he reached the age of sixteen, his legal majority, took from his mother, the Queen Regent, the powers of government as constitutional King of Spain. On May 28 Señor Canalejas resigned, and on May 31 Suarez Inclan was appointed Minister of Agriculture. The members of the Cabinet agreed on the principles that no religious association can establish itself without previous authorization, to be obtained by means of a law; that religious orders that are established must conform to the general laws regulating instruction and submit to sanitary inspection; that religious orders can not hold land except under the terms of their license; and that religious orders can be dissolved by unanimous vote of the Council of Ministers for reasons of public order. Señor Canalejas called for the reassembly of the Cortes to consider a bill embodying these principles, but Señor Sagasta and most other members did not deem the matter urgent. The religious orders were allowed till June 10 to register. The total number of associations in Spain was 3,115, with 50,933 members, of which 2,586, with 40,188 members, were for women and 529, with 10,745 members, for men. The total number that sought and obtained registration was 2,611, registration being provisional only in the case of 1,410. In the case of 150 it was withheld temporarily pending further examination, and of the remaining 354 most were orders of the concordat requiring no registration. Only 3 communities neglected to apply for registration. An issue of 338,000,000 pesetas of 5-per-cent. redeemable bonds was taken readily in June in Spanish cities. A decree was then issued requiring private schools of all kinds to seek official authorization and to submit to periodic inspection and the laws regarding sanitary management and modes of punishment. There has been very little protective legislation for working men in Spain, and for this reason the laborers often resort to violence.

The Cortes, having adjourned during the ministerial crisis, met again on April 3. The new bill on bank notes, requiring the Bank of Spain to carry a cash reserve, half in gold, for all over 1,200,000,000 pesetas, was opposed by the bank directors, and also the provision that the bank should derive profits from selling Government securities. The bill stipulated that the debt of the Government to the bank should be paid off in ten years, and provided for a foreign loan for this purpose, but this measure would not authorize the issue of bonds, with the stigmatization of 31 pesetas a kilogram. A Government bill suspended the duty on meat and live cattle for six months. The municipalities were called upon to substitute other taxes for the octroi duties on foodstuffs. The interior minister, De Conchera, in his report for 1903, showing 591,178,227 pesetas of revenue and 948,861,698 pesetas of expenditure, the Minister of Finance proposed changes in the liquor law and also a tax on the size of the bottle. A decree for closing unregistered religious associations was temporarily suspended pending negotiations with the leaders of the groups who would give him no assistance. On Nov. 14 a homogeneous Liberal Cabinet was constituted as follows: President of the Council, Señor Sagasta; Minister of Foreign Affairs, the Duke of Almodovar; Minister of Justice, Señor Puigcerdá; Minister of Finance, Señor Equilior; Minister of Agriculture, Señor Moret; Minister of War, Gen. Weyler; Minister of Marine, the Duke of Veragua; Minister of Public Instruction, Señor Romanones; Minister of Public Works, Amos Salvador. The Premier was violently assailed on account of the change in the ministry. He was accused of bringing it about to please the King. On a vote of censure the min...
STRIKE OF THE COAL-MINERS.

Ministers were sustained on Nov. 21 by 181 votes to 118, and were confirmed. The ministry was forced to resign, and on Dec. 6 the Conservative leader formed a Cabinet as follows: President of the Council, Señor Silveira; Minister of Foreign Affairs, Señor Palma; Minister of Justice, Señor Data; Minister of Finance, Señor Villa-Verde; Minister of the Interior, Señor Maura; Minister of War, Gen. Linares; Minister of Marine, Señor Tocca; Minister of Public Instruction, Al- tenda Salazar; Minister of Public Works, Marquis Vadillo. The sittings of the Cortes were suspended and afterward the Cortes was dissolved.

STRIKE OF THE COAL-MINERS.

With the organization of the anthracite miners in Pennsylvania by the United Mine-Workers of America, in 1890, began a situation that led to the strike of 1902. Through the machinations of Senator Marcus A. Hanna and others, the operators made concessions, and trouble for a while subsided. A wage increase of 10 per cent. was granted in April, 1902. On April 30, the request by the United-Mine-Workers for a joint conference for settling a wage scale for the year ending March 31, 1903, was declined by the operators. At Shamokin, in March 1904, the miners in convention demanded a shorter work-day, a minimum day wage-scale, uniform increase of wages, and the weighing of coal for payments by the amounts mined. They resolved to appeal to the National Civic Federation, and that, in case of adjustment not being made before April 1, only three days' work a week should be allowed, except for keeping the mines in repair. They also made a provisional strike declaration.

Senator Hanna, acting for the federation, vainly endeavored to settle the difficulty, and on May 8 proposals of arbitration were made by John Mitchell, president of the United Mine-Workers, to the presidents of the coal companies, who promptly rejected them and declined to negotiate with Mr. Mitchell or to recognize the union. The position of the operators on the general question had already been indicated by one of their number in the following statement: "There is a reason why the miners should not be satisfied with the principles which are so much the subject of discussion. We can not be made concessions to them. The rank and file of the miners are perfectly satisfied with what they are." On May 10 the strike was officially declared, and about 145,000 men quitted the mines, of whom nearly 120,000 were members of the union, the remainder being ineligible to membership. The most serious labor struggle in the history of the country had now fairly begun. The strikers demanded an increase of 20 per cent. in the pay of miners working on the ton, an eight-hour day for all employees without change of wages, payment by weight to be based on a ton of 2,240 pounds, and recognition of their union. The advantage of the strikers lay chiefly in the Pennsylvania law that every miner in the anthracite field must hold a certificate of competence based on not less than two years' experience, and these, nearly the whole number belonging to the union and without them the mines could not be worked. The miners had also been saving their money since the previous strike, in anticipation of the present contingency. A proposition to order a bituminous miner in the anthracite field to work on the mines was rejected by the convention of United Mine-Workers at Indianapolis, June 18.

Both parties to the controversy maintained a stubborn attitude; and the public, divided in opinion and sympathy, watched them with ordi-
The conference was held, but nothing was directly effected by it. Mr. Mitchell, in behalf of the miners, offered to submit the questions in dispute to arbitrators chosen by the President. This proposition the operators rejected, refusing to treat with the miners' organization. They called upon the President to use the power of the Government to restore order, and declared that with the protection of Federal troops they could operate the mines. They also offered, if the men returned to work, to submit grievances of individual colliers to judges of district courts of common pleas. On Oct. 8 the Commissioner of Labor, Mr. Wright, gave to John Mitchell the following message: "If Mr. Mitchell will secure the immediate return to work of the miners in the anthracite regions, the President will at once appoint a commission to investigate thoroughly into all matters at issue between the operators and miners, and will do all within his power to obtain a settlement of those questions in accordance with the report of the commission."

To this proposal the miners did not accede, and the situation became still more critical. A few days later J. P. Hannon, sutler, presented with the Secretary of War, the mine operators, and President Roosevelt, offered, Oct. 18, in behalf of the coal companies, to submit to arbitration by a commission to be appointed by the President and to be composed of (1) an engineer officer of the army or navy; (2) an expert mining-engineer; not in any way connected with coal-mining, to act as a test; (3) a man of the judges of the United States Court of the Eastern District of Pennsylvania; (4) a man of prominence, eminent as a sociologist; (5) a man by active participation in mining and selling coal familiar with the physical and commercial features of the business. Mining was to be resumed immediately upon the appointment of the commission, whose findings should govern the relations between the coal companies and their employees for at least three years. At Wilkesbarre, Oct. 21, the miners in convention unanimously voted in favor of this plan, which was accepted. On Oct. 23 mining was resumed at many places, and soon nearly the whole body of strikers were at work. The troops were shortly recalled. Oct. 29 was observed by the miners as a "wine day." During the strike, which lasted more than five months, the miners were enabled to hold out with little suffering by the aid of union assessments and contributions of money from friends and individuals. But in many parts of the country the effects of the strike were severely felt through scarcity and cost of coal. Even before cold weather the price of anthracite sometimes rose to $20 a ton, and it was often difficult to get at any price. Dealers in many instances could only supply their customers from day to day. Cities had to suspend ordinances prohibiting the use of soft coal. Thousands of poor persons were glad to buy coal by the paltry, and in spite of the efforts of benevolent societies and individuals to supply them in this manner, many regular dealers could not do so, many suffered at times complete privation of fuel. In some places coal was taken forcibly from railroad-cars by crowds of citizens, without interference of the public authorities. Some quantities of coal were imported from Great Britain. The famine continued through the greater part of the winter.

The arbitration commission appointed by the President, met in Washington, Oct. 24, with the following membership: Judge George Gray, United States Circuit Court, Carroll D.
Wright, Thomas H. Watkins, Gen. John M. Wilson, Edward W. Parker, E. E. Clark, and Bishop John L. Spalding. Judge Gray was elected chairman. The first conference of the commission with the parties to the controversy was held Oct. 27, on the 30th the commissioners, at Scranton, Pa., began a personal inspection of the coal-mines and an inquiry into conditions in the anthracite region. The formal hearing opened at Scranton Nov. 14, with John Mitchell as the first witness. He had previously filed with the commission a statement of the miners' case, in which several of the presidents of the coal companies had presented their replies, in which they refused to recognize or enter into any agreement with the miners' union, denied that wages paid were unfairly low, that the hours were unreasonably long, and that miners' children were forced into the breakers, and charged the union with attempting to wreck the mines. On the stand Mr. Mitchell upheld the demands of the strikers in full. He said he would not deprive non-union men of the opportunity to buy necessities of life; that he regarded the boycott as a strike; that he opposed injunctions, and held a contract to be superior to a union constitution. There was no way of punishing a member of his union, he said, except by expulsion. He admitted that miners should work at least eight hours a day, and said they should each get $800 a year. He also admitted that many boys worked in mines to support their parents, and wished that the age limit might be raised from twelve to fourteen. From the cost of hiring men, he agreed must be borne by the consumer. He presented figures to show the low wage rates among anthracite miners—40 to 60 per cent. less than those of bituminous miners. He virtually denied the truth of a vast majority of the reports of outrages during the strike. Some of the killing, he declared, was done by Coal and Iron police, and some by non-union men, while some alleged murders were, he believed, accidental deaths. He admitted, however, that the 14 men killed during the strike only 3 were members of the miners' union. Denouncing, he intimated, was done by company men to create feeling against the strikers. He denied knowledge of many things for which he had been held responsible. There was no lack of men to maintain the strike. To the proposal of a separate union for the anthracite miners he firmly objected. Mr. Mitchell showed himself so skilful under cross-examination to show that all trouble and trouble were caused by the union, and that before it came into the field the relations of the miners and their employers had been satisfactory. The mines, it was said, would have been better off. He obeyed the strike order. They denied Mr. Mitchell's charge that they were hindering coal-production, and declared that the union limits the number of men, by making it necessary for the mining companies, to say to him: "You are the best witness for yourself that has ever confronted me."

On Nov. 17 the non-union miners of the anthracite region filed with the commission their demand for increase of wages, and that no limit be put on hours of labor and earning capacity. They vigorously protested against recognition of the United Mine-Workers, recited their own wrongs, and demanded freedom from persecution and the right to sell their labor as they pleased. Subsequently Judge Gray, for the commission, announced that pending the hearing non-union miners were not to be displaced nor interfered with.

Witnesses told of boycotting and violence as the chief weapons of the strikers, of ill-treatment of non-union men, of lack of discipline in the unions, for prevention of such acts, of a reign of terror, and that the "burning of wood," which was tried in 1824 in the presence of King James I and numerous spectators. It had a capacity for 15 persons, and was moved by without further action of the commission, but this proved unsuccessful. At this time the "independents" were urging the coal companies to maintain their stand against recognition of the union. This they did, and were charged by the miners' counsel with bad faith in connection with the peace negotiations. Upon the operators' non-recognition of the union, proceedings before the commission were resumed. Several priests of the coal-district testified for the miners. Serious charges were made regarding the treatment of miners by some of the "independents," who endeavored to refute them. There were pathetic accounts of evictions and other hardships.

The Delaware and Hudson Coal Company showed that the average yearly wages of their miners was $422.68. Other companies made similar exhibits. Evidence was introduced to show that miners as a rule are well paid, better than many skilled laborers, that in the public schools their children suffer no disadvantages as compared with others, and that operators are in favor of keeping children under age out of the breakers, while some miners desire child-labor. Some of the statements as to high wages were afterward discredited.

Recalled for cross-examination, Mr. Mitchell said that he had tried to avert the strike, but acknowledged that he could have prevented it by a veto, and that union men could be punished for offenses by withdrawal of charters or by suspension. Samuel Gompers told of the benefits of union labor, but limited his approval of the boycott. The side wages, he agreed, must be borne by the consumer. He presented figures to show the low wage rates among anthracite miners—40 to 60 per cent. less than those of bituminous miners. He virtually denied the truth of a vast majority of the reports of outrages during the strike. Some of the killing, he declared, was done by Coal and Iron police, and some by non-union men, while some alleged murders were, he believed, accidental deaths. He admitted, however, that the 14 men killed during the strike only 3 were members of the miners' union. Denouncing, he intimated, was done by company men to create feeling against the strikers. He denied knowledge of many things for which he had been held responsible. There was no lack of men to maintain the strike. To the proposal of a separate union for the anthracite miners he firmly objected. Mr. Mitchell showed himself so skilful under cross-examination to show that all trouble and trouble were caused by the union, and that before it came into the field the relations of the miners and their employers had been satisfactory. The mines, it was said, would have been better off. He obeyed the strike order. They denied Mr. Mitchell's charge that they were hindering coal-production, and declared that the union limits the number of men, by making it necessary for the mining companies, to say to him: "You are the best witness for yourself that has ever confronted me."

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means of 12 oars, which passed through the sides by means of leather stuffing-boxes. The boat, according to the reports, was completely submerged with its whole crew and the air in the boat was “kept pure by means of liquids,” a secret that died with the inventor. An Englishman named Day in 1660 remained under the water in his submarine boat at Yarmouth for twelve hours, and came safely to the surface. In his second attempt the boat sank slowly and never was found. The inventor as well as the rest of the crew were drowned, and none of the details of the construction of this craft remain; it is only known that it was similar to the Drebble’Boat in the fact that it possessed a double bottom which could be filled with water and had to be pumped out to bring the boat to the surface. Papin and Borelli are mentioned as having invented boats in 1672, and Stapleton in 1683, but nothing is known of these attempts.

At the outbreak of the American War of Independence, in 1776, David Bushnell, of Saybrook, Conn., built a submarine boat that up to that time was the most perfect that had been invented. It was of wood, shaped like 2 turtle-shells, back to back, floating in the water tail downward, and was about 14 feet in diameter. It contained air enough to support life for half an hour, and air could be renewed at the end of that time through small ventilators (L and M) by rising to the surface. The operater was seated in the middle, the seat forming a brace between the two sides, and in this position he had his eyes opposite one of the numerous glass plates in the cover or top of the boat. In front of him was the handle of a screw (E), by which the boat was propelled; another (F), by which it was raised or lowered; a compass (D), marked with phosphorus; a water-gage (C), to show the depth, marked with oil and phosphorus; and near him the handles or treads of various small pumps and levers, by which water and foul air were expelled, the rudder moved, ballast let go, etc. The torpedo—or submarine magazine (N), as Bushnell called it—consisted of a block of oak containing a charge of about 150 pounds of powder. This block was on the upper part of the boat and connected by means of a rope to a screw (E), the handle of which was directly in front of the operator. The mode of operation was to move slowly along the surface, with the top just awash, till within a short distance of a vessel at anchor, then to sink, and, coming up underneath the bottom, fasten the torpedo by means of the screw. The torpedo and screw were then detached from the operator’s boat, a clockwork mechanism inside the torpedo being set going at the same time. This clockwork could be set for six, eight, or twelve hours’ run, thus allowing the operator ample time to make his escape. The boat was fitted with a rudder (G), with water-ballast tank (O)—with a valve (X)—to admit and a pump (P) to draw out the water—and was kept stable by fixed ballast (A) and a removable lead weight (B), which when detached by the operator enabled him to come quickly to the surface at any time. In 1778 it is reported that a Continental officer, Sergeant Ezra Lee, attempted to attach the torpedo to the British ship Eagle, then blockading New York harbor. But the attaching screw came in contact with some iron part of the ship’s body, and in attempting to get another position under the ship he lost his way under the water and had to discontinue his efforts at daybreak. On his return he feared that he had been discovered by the enemy and therefore disconnected the torpedo from the boat in order to lighten her and increase his speed. An hour after his return the mine exploded. The clockwork in the mine was supposed to start at the moment of detaching and had been set for twelve hours. The assertions made by Lee could never be verified, and it is therefore very probable that in the beginning he had become frightened and had set the torpedo adrift, and then waited at the surface of the water for daybreak.

Robert Fulton, the builder of the first steamboat, began to experiment with submarine navigation in 1797, and, after interesting Napoleon Bonaparte, then Consul, in the project, he completed, in 1801, his boat, the Nautilus. This was crudely cigar-shaped, 21 feet 4 inches long, with a mean height of 6 feet, and was built of wood, sheathed with copper and hooped with iron. On the top was a dome with ports for observation. The keel was a heavy bar of metal, which served to keep the boat in equilibrium. When at the surface it was propelled by a sail; when diving the mast was folded downward, and, with the sail, was stowed in a groove in the top of the ship’s body. Under water it was propelled by a screw, which the crew turned by means of a crank, with a multiplying motion. The diving and rising to the surface was effected by the filling or pumping out of water in the ballast-tank, which was built in the craft. A rudder was placed at the after and an anchoring device at the forward part of the boat. In June, 1801, the Nautilus received a trial in the Seine, at Paris, and then was taken to Brest, where the inventor, with three men, remained an hour under water at a depth of 24 feet. On Aug. 7, 1801, they remained under the water for four hours and twenty minutes by taking a vessel of compressed air with them. He attached a mine to a pontoon and exploded it. Nevertheless the French Government, as well as the English Government, to whom he applied afterward, decided not to follow up the work.

In the twenty years following 1844 Lodner
PHILLIPS, a shoemaker of Michigan City, Ind., made several successful experiments with boats of his own invention. The four men largest boat, built in 1864, was of boiler iron, with iron frames, cigar-shaped, and about 90 feet long. It was provided with water-ballast tanks, which were emptied by compressed air, stored in pipes along the under side of the vessel. It was propelled by man-power, and, according to report, in it he made many descents, sometimes taking with him his entire family. He endeavored to sell this boat to the United States navy and subsequently to the German navy, but it was refused by both.

The only use of the submarine boat in actual warfare was on the night of Feb. 7, 1864, when the National sloop Housatonic was blown up and sunk in the harbor of Charleston, S. C., by the Confederate submarine David. This boat was built by McClintock, of New York, and was of boiler-plate. The crew consisted of 8 men, of which 1 man was at the helm, and the other men turned the 2-bladed propeller by means of cranks. The boat was supposed to have attained a speed of 4 knots, and to dive to any depth, and remain there a half-hour with the whole crew in quiet water, although authentic reports of her speed and depth, have been far to agree with this assertion. The idea of the boat was to tow a mine close under the keel of an anchored vessel, and explode the mine through contact with the bottom of the vessel. Lieut. Paine, of the Confederate navy, with 8 volunteers, undertook to attack the Union vessels. While the boat was being prepared the swell of a passing steamship splashed into the hull and caused a leak, sinking her. The 8 volunteers were lost, and Lieut. Paine succeeded in getting out, as he was standing at the manhole at the time. After the boat had been raised, Lieut. Paine made another attempt with 8 other volunteers, but the boat ran ashoar at Fort Sumter and capsized. On this occasion there were 6 men lost of the crew, and only the commander and 2 men were saved. After the boat was raised for the second time and put into shape, an engineer named Aukley, who had been building the reconstruction, attempted a trial trip in October river. While on her trip, he changed his apparatus for getting to the surface must have become deranged, as the boat did not rise again, and it was only recovered three days later. The entire crew were, of course, dead. The next trial was undertaken by Lieut. Dixon, of the Twenty-first Volunteer Regiment. He left the harbor with 8 volunteers on Feb. 17, 1864, and succeeded in destroying the Union sloop Housatonic, which lay at anchor in the outward harbor of Charleston. He had somewhat changed his plans, as the attack was not made by means of mines, but was made with a pole torpedo; also the boat was not entirely submerged. During this time the manhole was left open so that the men could breathe more easily. Aboard of the Housatonic the boat first gave the appearance of a floating block of wood, and the crew of that vessel only became aware of their danger when it arrived within about 900 feet. They immediately slipped their anchor and started the engine, and called the crew to the guns, but before a shot could be fired—it was about two minutes after the boat had been sighted—the explosion occurred, and the Housatonic sank. Ranking only 5 men were killed; the remaining saved themselves by climbing into the rigging, which projected above the water. The submarine boat, however, did not explode, and was afterward raised from the bottom of the vessel. It was the first real attempt to build a submarine boat, and it caused it to sink, and for the last time its entire crew were buried under the waves. The Confederates had lost 5 men, which would not speak very well in favor of the submarine boat.

With the experiments of Wilhelm Bauer, a Bavarian officer of artillery, the first period of submarine-boat building—that of small boats impelled entirely by man-power—came to an end. Bauer finished his first boat late in 1850. It was a cigar-shaped, 25 feet long, beam 6 feet, and height 9 feet, built of 4-inch iron with iron frames and impelled by a large wheel, balanced with weights and geared to the propeller. In 1851, it was launched in the harbor of Kiel, February, 1851, it leaked and sank, and Bauer and his crew of 2 men escaped drowning almost by a miracle. The highly compressed air in the hull was forced open in the top of the vessel and the 3 men were shot to the surface in the air-bubble. In 1855, at the instance of the Russian Government, he built a second and larger boat, 80 feet long and 12 feet at its greatest diameter. The plan was practically the same as that of the first boat excepting that for the 22 tons of iron ballast he substituted water ballast. It took 12 men to drive the boat, and fresh air was supplied by carrying compressed oxygen in flasks, and by a spray of sea water forced into the boat. Experiments with this boat were carried on until 1860, and at one time Bauer is said to have stayed under water with his 12 men for nearly twenty hours, but it was finally rejected by the Russian navy. He afterward attempted to interest the Prussian navy in a scheme for a large submarine boat, but failed to convince the Government of its availability.

In 1863 an American inventor named Alstitt drew plans for a submarine boat that, although it never was constructed, showed the feasibility of the building of such craft. Alstitt proposed to use, when at the surface, an ordinary steam-engine, and when diving, after the smoke-stacks had been sealed, to depend upon electricity for his power. The boat was to carry water ballast and cylinders of compressed air for ventilation during submergence, and thus involved nearly all the essential features of the modern day submarine. About the same time Admiral Bourgeau and Constructor Brun, of the French navy, were working out their Plongeur, which was launched at Rochefort in May, 1863. It was 140 feet deep, and 20 feet wide, and had an engine driven by compressed air, which was stored in tanks distributed throughout the vessel, the exhaust of which served the crew for ventilation. Two novel features of the Plongeur were the return to the use of the vertical screw in an attempt to control the depth of the dive when water was let into the ballast spaces, and the peculiarly constructed main- hole, which was a life-boat set into a depression in the top of the vessel, and connecting with the interior by water-tight doors, and which could be readily detached from the body of the larger boat. It also had a pair of horizontal rudders at the stern. In its trials, owing to its great length, it proved itself very unstable when sailing submerged, and was soon put out of commission.

In 1868 Herr Vogel, of Dresden, had built a boat with an iron shell 16 feet long and 4 feet in depth, driven by a 3-cylinder steam-engine. The boiler itself was heated by hot air from a chimney, and was soon put out of commission. He claimed for his boat that it was able to remain
submerged for three hours, but up to 1872 it appears never to have received an under-water trial. The Russian engineer built two boats: one in 1877, 13 feet long, driven by trestles, geared to a propeller, and carrying a single man, who by means of water-proof leather gloves commanded a dome on the top of the boat that was supposed to attach mines to the vessel attacked; and another in 1879, 20 feet long, carrying 4 men in addition to the commander. They had the usual water-ballast tanks, and a device of weights operated by chains and sliding the full length of the boat to trim it to the angle desired in diving or rising to the surface. In 1884 he built a larger boat, of the same principle, driven by a motor and storage-batteries, which was favorably reported on by the Russian Government.

In 1884 Prof. Joseph Henry Tuck made experiments with a submarine boat, 30 feet long, that contained no essentially new constructive features. It was driven by a dynamo and storage-batteries, and is said to have attained a surface speed of 5 knots. It carried 2 Fish torpedoes, attached one on each side by magnetic claws, that could be operated from the interior of the boat to release the torpedoes at the proper moment. In 1888 Tuck built another boat, which he called the Peacemaker, 30 feet long, 81 feet beam, and 53 feet deep. She was propelled by a 14-horsepower steam-engine, and attained a surface speed of 8 knots. On either side of the dome and at both ends were water-proof gauges, as in Drezewski's boat. She also carried torpedoes in magnetic claws in the same manner as Tuck's first boat. While she made several more or less successful trials, she was never accepted, and the experience of her construction seems she finally failed to interest the United States Navy in carrying on experiments with her.

Waddington, at Liverpool, in 1886, exhibited a boat using electricity as the motive power. It was fitted with 4 vertical propellers, 2 on a shaft, placed in wells, 1 forward and 1 aft of the main compartment of the boat. It also had 2 large horizontal rudders, 1 on each side, amidships, and horizontal and vertical rudders and a screw-propeller aft. The 45-cell storage-battery was placed on the port side, and the air in the dome at the surface a speed of 8 knots for ten hours. There were separate motors for each of the vertical propellers. The end compartments of the boat were reserved for the air for renewing the air of the boat if it became necessary. The surface trials of Waddington's boat were reported satisfactory, but it is not known whether any submarine tests were made. In November of the same year a boat designed by Andrew Campbell was tried in the West India Docks, London. It was 57 feet long, had a maximum diameter of 7 feet and a displacement of 53 tons when fully submerged. It had twin screws driven by 45-horsepower electric motors, and was fitted with an ingenious system for increasing and diminishing the displacement in order to dive or rise to the surface. Four horizontal cylinders, 20 inches in diameter and capable of being pushed out about 20 inches, were placed along each side of the vessel, which, when so pushed out, increased the displacement by about 1 ton. These projecting cylinders would, of course, be a great detriment to speed at the surface, and there are no reports further than the speed was successful in sinking and raising the vessel.

Nordenfelt completed his first boat in 1885. It was 64 feet long, 9 feet beam, and 12 feet deep, with a ton displacement. At the after-end was a vertical rudder and the 4-bladed screw propeller, and at the forward end a pair of horizontal rudders balanced by weights. By this device Nordenfelt largely overcame the fore-and-aft unsteadiness that had bothered his predecessors, and which to-day is not entirely unavoidable. The boat was also fitted with vertical driving propellers, 1 on each side amidships, operated by separate engines. The speed of these propellers was regulated by a complicated mechanism, controlled by a piston actuated upon the pressure of the water outside the boat. The boat was propelled by a 100-horse-power compound surface-condenser steam-engine. When at the surface steam was generated in an ordinary Scotch boiler, using coal as fuel; when diving, superheated steam was drawn from 2 tanks, in the ends of the vessel. There were 3 other compartments: the central one occupied by the crew, and the other 2 for the engines and the boiler. At the surface air was forced into the boat by a small ventilator fan in order to reduce the temperature, when submerged the currents of cold water outside the shell were depended upon for the same purpose. The trials of this boat were more than ordinarily successful, and several of the European countries immediately took an interest in it. Nordenfelt was soon commissioned to build boats for Greece, Turkey, and Austria, and undertook and carried out elaborate experiments with this type. The 2 Greek boats had their official trials in the Bay of Salamis in April, 1886, and while as there were no official accounts of the time would lead one to believe that they fell far short of requirements. The Abd-ul-Hamid and Abd-ul-Medshich were delivered to Turkey in January, 1887. They were 100 feet long and had a displacement of 180 tons, and were impelled by 250-horse-power compound engines. They were fitted with vertical propellers fore and aft, and the horizontal rudders, in addition to being balanced by heavy pendulums, were capable of being controlled from the conning-tower. They each carried 2 torpedoes, forward on the top of the boat. At the trials at Constantinople they succeeded in making 8 knots at the surface and from 4 to 5 knots below. It is a significant and not altogether encouraging fact that in the war of 1897 neither Greece nor Turkey evinced sufficient faith in these apparently powerful vessels to put them into active service. Nordenfelt's last boat was built for Russia, at Barrow, in 1887. It was 120 feet long and had a displacement of 160 tons at the surface, and of 250 tons when submerged. It was fitted with 2 conning-towers, and the upper part was protected by 1-inch plate from machine-gun fire. Its coal capacity was 8 tons, which could be increased to 28 by removal of the water ballast, sufficient for a 1,000-mile run at a speed of from 8 to 9 knots. She was lost in a storm in the Baltic Sea in January, 1888, while on her way to Russia after her trial off the English coast.

The essential feature of the Baker boat, invented by George C. Baker, of Detroit, and for a time under consideration by the United States Navy, was its 2 propellers, 1 on each side, amidships, on a transverse shaft running through the center of gravity of the boat. The gear-casings were so fitted, by means of a worm-gear and a sprocket-chain, that the casings could be swung through an angle of 90°, and the thrust developed by their rotation directed at will in a plane perpendicular to the shaft. Submergence was effected and maintained by giving the screws a sufficient angle to overcome the buoyancy by the vertical thrust, with a resultant forward thrust. The boat, which was tried Nov. 20, 1892,
was of wood, covered with canvas and sheet-iron, 46 feet long and 9 feet deep. At the surface it was propelled by a steam-engine, and when submerged by a 50-horse-power electric motor, fed by 232 storage-cells divided into 4 main batteries, which could be connected singly or together in order to vary the speed of the boat. At the surface the batteries could be charged by converting the motor into a dynamo. Baker made some improvements and experimented through the summer of 1893, but the propellers were so wasteful of power and the boat itself so unstable that it never attained success.

In 1897 Simon Lake, of Baltimore, began the construction of a boat, with which he made very successful trips under water. His boat, christened the Argonaut, was originally intended to assist the work of divers on sunken vessels, and when submerged, to roll on wheels upon the bottom. It was 36 feet long and about 8 feet in diameter. The 30-horse-power naphtha motor drove the propeller when the boat was sailing at the surface and the wheels when on the bottom. No. 1, 1902, Lake launched his third boat, the Protector, and the first torpedo-boat of this type, at Bridgeport, Conn. She is 65 feet long, 11 feet wide, and 14 feet deep, and can descend to the depth of 150 feet. She can travel on the surface, or with conning-tower awash, or at any desired depth within the limit of 150 feet, or on the bottom, where a wheel is driven to propel the boat. There is a compressed-air lock which permits of divers leaving the boat while she is submerged. She has a sufficient fuel-carrying capacity to make a submerged run of 1,500 knots, or 1,500 miles. The boat has a speed of about 10 knots. She is equipped with a storage-battery capacity sufficient for a submerged run of 50 miles on one charge of the batteries, and has means for recharging the batteries without going to the surface. She carries 3 torpedo-explosion tubes, 2 at the bow and 1 in the stern. One of the dangers and difficulties in running submarine boats mid-distance between the surface and the bottom has been to keep them on an even keel. Most of the boats have shown a tendency to dive or tip back, especially when any of the crew shifted weight from one point to another. In the Lake boat this trouble is obviated by the use of hydroplanes, which serve the same purpose in the water as aeroplanes do in the air to keep a flying-machine horizontal. It was the purpose of the inventor after trial trips on Long Island Sound to take the Protector to Washington for the inspection of the Navy Department.

In 1887, and again in 1888, Hoeggsard, a Danish naval officer, submitted plans for large submarine boats which have never been followed out. These were to use steam and electricity for power, and to carry a life-boat attachment similar to that of the Plongeur. A boat built after plans by Isaac Peral at the Cadiz Navy-Yard in 1888, was 72 feet long and of about 60 tons displacement, and had 2 screw propellers driven by a 30-horse-power motor charged by a battery of 480 storage-cells. It had vertical propellers similar to Nordenfelt's, each driven by a 5-horse-power motor, supplied from an auxiliary battery of 120 cells. It carried a torpedo-tube and had an armed prow.

In the past fifteen years France has expended more in time and money in the investigation of submarine boats than any other country in the world. Among the first of these more recent experiments were those with the first Goubet boat, launched at Cherbourg in 1889, which made 2 miles in May and June, 1891. The entire boat (16 feet 4 inches long, 3 feet 3 inches beam, and 5 feet 10 inches depth) was cast in bronze in a single form. She had an armament of 2 guns, each weighing 5 tons, carried a crew of 2 men, who sat back to back with their heads in the conning-tower and directed the movements of the boat. Under the seat was a receiver of compressed air to renew the air-supply. The propeller was driven by an electric motor, and in case of necessity could be turned by hand. The water-ballast space was divided into small compartments connected by small holes, so that the ballast would not shift suddenly. On either side of the craft were fin keels to increase her stability, and a vertical rod at the bow served as a sight to steer by. This boat was small and the trials did not satisfy the inventor, and he built a second boat 26 feet long, using the depth of 150 feet. Boat No. 2 was cast of bronze in 3 pieces, which were joined together by flanges inside. It attained a speed of 5 or 6 knots. It carried 7 tons of lead as permanent ballast and had 2 torpedo-tubes. Of the 2 boats designed for the French Government by Gustave Zédé the Gymnote was built at Toulon under the direction of Constructor Romazotte, and launched in the autumn of 1888. It is 56½ feet long, 6 feet in maximum diameter, and has a displacement when submerged of about 60 tons. The power is supplied by a 52-horse-power electric motor, with a 540-cell storage-battery, which together weigh about 12 tons. The forward and after ends of the boat contain the ballast tanks, which are emptied and filled by an electrically driven pump. She is fitted with vertical and horizontal rudders aft, and carries a torpedo-tube with compressed air-tanks for-launching torpedoes. No provision is made for renewal of the air, as with her crew of 6 men she could stay under for several hours without inconvenience. This boat is said to make an average surface speed of about 8 knots, and with one charging of the batteries to have a radius of action of from 40 to 100 miles. Zédé's second boat, La Sirène, was launched at Toulon in May, and after the death of its designer called after him, the Gustave Zédé, is 147½ feet long, 581
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counterpart would drive the boat at a maximum speed of 8 knots in the partially submerged condition. The water ballast and the rudders are arranged as in the Guppy, and in addition, tanks for the torpedo-tubes compressed air is supplied for artificial renewal of the air in the boat. Both these boats have received extensive and thorough trials; the utmost secrecy is preserved in regard to their movements, but it is generally understood that they do not come up to the expectations of their inventors in regard to speed, and they are proportionate in the length they are very unstable when sailing submerged. This would seem to have influenced a return to a smaller type of boat, for the Morse submarine was launched at Cherbourg, July 8, 1899, is only 116 feet long, 9 feet in greatest diameter, and displaces 148 tons, while the first Laubeuf boat was even smaller. The Morse derives her power from a 350-horse-power electric motor, and is said to average about 10 knots in the light condition. It can not really be called a submarine boat, as it is only intended to float on the surface almost entirely submerged. Laubeuf in his boat designed in 1899 adopted an engine using oil-fuel when at the surface and storage-batteries for submarine work, and thus gained a great advantage over the electrically driven boats, whose radius of action is limited by their necessity of remaining near a central station for recharging the batteries. Most of the later types of boats now under consideration and trial in various countries are based upon this 2-power system.

What Goubet and Zédé did for the development of the submarine boat in France Mr. J. P. Holland, on account of his experience in the United States, and the acceptance of the first of 6 boats made upon his plans for the United States navy is but the successful culmination of a long series of disappointments. Holland made his first attempt in 1871 with a boat 3 feet by 2½ feet in cross-section and 14 feet in length. It had a double bottom, a 4-horse-power oil-engine of 50 horsepower. His second was a large craft 37 feet long and 6 feet in diameter, driven by a 15-horse-power engine, and carrying 2 men. It was fitted with a 9-inch Zalinski gun. His third was a boat 44 feet long and 2½ feet in diameter, and without damage at its first test. The fourth boat, 40 feet in length and about 8 feet in diameter, brought Mr. Holland's invention more prominently into notice than any of his previous craft. On March 3, 1893, Congress authorized the construction of a submarine of the Holland type, and the contract for the hull and machinery was let for $150,000. This boat, named the Plunger, was to have been 84 feet long, with a maximum diameter of 11½ feet and a displacement at the surface of 148 tons and in a submerged condition of 165 tons, and when submerged to have a buoyancy of one-third of a ton, counteracted by 2 vertical propellers. The hull was to be built so strong that it could stand to be immersed to a depth of 75 feet. For sailing on the surface at light draft a water-tube boiler of 9,850 square feet of heating surface, using oil as fuel, supplied steam at a pressure of 150 pounds per square inch. The boat is 800 horse-power, driving the 2 wing propellers, while a third engine of similar construction and developing 300 horse-power drove the middle propellers. While the boat is in the double bottom and below the axis is driven by a single 70-horse-power electric motor, which could be connected to either one of the 3 propellers at will. The 2 vertical propellers were likewise to be driven by a 200-horse-power electric motor. The 2 border propellers were to receive their current from storage-batteries, which could be charged by a dynamo connected to either engine when the boat sailed at her light draft, or she was to be carried on board, and used only for replacing the foul air, but also to force out the water ballast. This boat, however, never was completed, and when she was found to be unsatisfactory the contractors refunded the money advanced upon her, and work was begun upon a second Plunger, after improved designs by Mr. Holland, to replace her. The sixth Holland submarine, the Holland, was built as a private venture at the Crescent Shipyard, Elizabethport, N. J., and is 53 feet 11 inches in length, 10 feet in diameter, and has an arrangement of 74 tons when submerged. When on the surface she is driven by a single-screw, Otto gasoline-engine of 50 horse-power, at a speed of 8 knots an hour. When submerged, she is driven by an electric motor of 50 horse-power. Her armament consists of a torpedo-tube which lies approximately on the longitudinal axis of the vessel and a dynamite-gun which is upwardly inclined and is intended for the discharge of high-explosive shells when the vessel is submerged. The Holland was purchased after trial by the United States Government in 1900 to be used for training seamen, and in experimental tests. Much useful data has been gathered from her which will be incorporated in future vessels. On June 7, 1900, Congress authorized the construction of 8 more submarines of the Holland type. Of these, 2, to be known as the Grampus and the Pike, have been constructed by the Union Iron Works, San Francisco, Cal., and the other 4, known as the Adder, Moccasin, Porpoise, and Shark, at the Crescent Shipyard. The contract price for each of these boats is $170,000.

The diagram on the next page will show very clearly the construction of these boats and the arrangement of the various parts of their machinery and fighting equipment. They are 63 feet 4 inches over all, 11 feet 9 inches maximum diameter, and displaces submerged 120 tons. The motive power consists of an axis single-screw, 4-cylinder, Otto gasoline-engine, which is capable of giving the craft a speed of 8 knots on the surface, and a 70-horse-power electric motor, which gives the boat 2½ knots underwater when awash or submerged. The hull is circular in cross-section and is divided by 2 water-tight bulkheads into 3 separate compartments. There is also a thorough subdivision of the bottom, and every precaution is taken to localize any injury to the hull which might threaten the buoyancy. In the forward compartment is a torpedo-tube for the discharge of 45-centimeter Whitehead torpedoes. The tube is placed with its muzzle in the nose of the craft and its axis inclined somewhat to the longitudinal axis of the vessel. The muzzle of the torpedo-tube is closed by a water-tight door, which can be lifted from within for the discharge of torpedoes. In the same forward compartment are a series of air-flasks, a gasoline-tank of 850 gallons capacity, a compensation tank which will be filled with a sufficient amount of water to compensate for the loss of weight due to the discharge of the torpedo, and one of the trimmers. The entire compensation compartment contains in its double bottom the main ballast tank and a circular compensating tank between the two sets of batteries. Above the double bottom and below the axis on each side are located the storage-batteries. These are charged
by the gasoline-engine running the electric motor as a dynamo when the vessel is at the surface. Above the storage-batteries are carried the torpedoes, which are 45 centimeters in diameter by 11 feet 8 inches in length, and in the same compartment are a series of air-flasks, in which air at 2,000 pounds to the square inch pressure is stored. In the rear compartment is the 4-cylinder gasoline-engine, which is rated at from 160 to 190 actual horse-power, at from 330 to 390 revolutions per minute. Its net weight is 1,300 pounds. Its length over all is 9 feet 7 inches, and its total height above the crank-shaft center is 5 feet 6 inches. In these engines, which have given great satisfaction in the Holland, the distribution of the cranks and the timing of the valves and igniters are so arranged that the operations in the 4 cylinders alternate; so that while 1 is on the expansion stroke the other 3 are on the suction, compression, and exhaust strokes respectively. By this arrangement the engine is perfectly balanced and vibration is reduced to a minimum. In the construction of the vessels care has been taken that all portions of the exterior of the hull shall be free from projection of any kind that might be entangled by ropes or other obstacles when submerged. The lines of the vessels have been designed so that there shall be a minimum of resistance when they are running at the surface. The radius of action at the surface is about 400 knots, and the storage-batteries have sufficient capacity for a speed of 7 knots on a four hours' submerged run. Gearing is provided for driving the propeller direct from the gasoline-engine or connecting the engine to the main motor, accommodations being effected by means of suitable clutches. The submersion of the vessel is achieved by means of ballast tanks and a pair of horizontal driving rudders at the stern. For keeping her submerged at desired depths, use is made of the trimming and ballast tanks above described, and it is claimed that the control in this respect is very satisfactory. The air-supply and ventilation are secured by means of compressed air stored in the tanks referred to, while the gasoline vapors from the engines and, indeed, all noxious gases are carefully excluded by suitable devices, while safety-valves are provided to prevent the pressure in the vessel from exceeding that of the atmosphere. Provision is also made for automatic control of the rudders, for the purpose of preventing the vessel from taking excessive angles when diving, or coming to the surface, and also for keeping the boat submerged at the desired depth.

The vessels are controlled from the conning tower above the working platform, which is protected from the rapid-fire guns of the enemy by 4 inches of Krupp steel.

After the acceptance of the Holland by the United States Government and the order for the building of other and larger craft the Electric Boat Company, which builds and operates the Holland boats, built a smaller craft on the same lines as the Adder, Moccasin, etc., to be used for experimenting. She was about 70 feet long and 20 feet at her greatest diameter, and was named Fulton. After several successful trials, upon one of which her crew spent a night in her in the bottom of Peconic Bay, she left New York on the morning of April 28, 1902, for Norfolk and Washington by the sea route, convoyed by the yacht Mindora and the tug Storm King. At ten o'clock on the following morning, while rounding the Delaware Breakwater, a violent explosion occurred on board, wrecking the interior...
and injuring 5 of her crew. The boat had behaved splendidly throughout the trip, making several dives and surfacing without any accident. The explosion was caused, as determined by the examining board, by hydrogen gas from the storage-batteries that collected in the boat and set fire to the fuel stored there. The boat was brought back to New York, and it is the intention of the company to refit her as soon as the regular Government work is completed.

The Adder was the first of the new boats to be completed. In the early part of May, 1902, she was towed, by the way of the Delaware capes and Norfolk, to Washington, and received her first trials in the Potomac city. The Moccasin was completed soon afterward, the Grampus made her first trip at San Francisco, Nov. 3, 1902, and the other boats are all nearing completion. Captain C. F. Bailey, of the submarine depot, and Capt. G. F. Landers, instructor in the depot of electricity, mechanism, and mines, of all of Fort Totten, watched the tests, which have been passed by the given any battleship intended for the United States navy, with interest in view of the possibilities of the use of the submarine boat as a means of harbor defense. The boats were required to make 12 runs on the surface under the gas-engine only, over a mile, half the runs with the tide and half against it. The average speed of 8 knots an hour must be attained on these runs. Awa-sh the boats make 2 runs of a mile with the tide, and an equal number against it, the average speed to equal 7 knots, the gas-engine only being used. In a completely submerged condition, the crew and 2 observers from the trial board, and no portion of the boat is exposed, but a light mast is carried to show above the surface, so the trial board can observe the time and the range. On these trials the boats make 4 runs for each of the 3 different speeds over a course of half a nautical mile, 2 with and 2 against the tide, the averaging speed to equal 7 knots. Over a course of 10 knots the vessels were required to make 8 knots an hour on the surface and 7 knots an hour below. In the torpedo trials the vessels were required to run 2 miles under water and at the finish discharge a torpedo which shall strike a target 150 feet long by 15 feet deep, placed across the course, representing the vital of a battleship. The boats for observations more than 3 times from the time of starting until the discharge of the torpedo for the duration of each period of observation not to exceed one minute. The endurance trials consisted of a surface run of twelve hours' duration at full speed of 8 knots under the gasoline-engine, and 1 of three hours hermetically sealed under the electric motor at a speed of 2 knots.

The Adder made an average speed on the surface of 8.5 knots an hour when running in the light condition, in the awash condition she made 2.16 knots, and by 0.22 knots a minute. In her trial on Nov. 14 the Adder, after taking position on the course and getting under way, ran for a mile submerged, then turned and returned to the starting point. She fired her torpedo at a mark 150 feet long and 15 feet deep representing the vital part of a battleship. The turn was made when she was completely submerged, and in the home run only two observations, lasting thirty seconds each, were taken, one of them soon after the turn, and the other between the half and the quarter-mile flags. After the second observation she remained invisible, with no indication of her whereabouts, except when she fired her torpedo, the course of the torpedo being indicated, as it always is, by the trail of bubbles of compressed air from her engine rising to the surface. The torpedo went a few feet wide of the mark, but it was asserted that the divergence was due to the swerving of the torpedo, and not to faulty aiming from the Adder. In any case, it had been in actual warfare the torpedo would have struck a ship in the same position well within the bow or the stern and would have proved effective. In Nov. 14 the Adder submerged run of three hours, and the distance traveled nearly 21 knots. Naval-Constructor Woodward, one of the officers of the Inspection Board, stated that the air, excepting during the last twenty minutes of the run, was extremely fresh, and even in the latter period it was as fresh as the air on the berth-deck of a battleship. Subsequently the engine passed satisfactorily the test of a continuous run of twelve hours' duration. The run was made entirely under the electric motor. The batteries were charged to their capacity of 1,900 amper-hours, and about 500 amperes an hour were used. At the end of the run the batteries showed a further capacity of about 400 amper-hours, and the voltage had been reduced from 120 to about 100. Although she was required to run but three hours submerged, it is estimated she could have run almost another hour before exhausting the capacity of her batteries. Reducing the consumption of power, it is estimated that the Adder could have made 125 knots under her electric motor at 3 knots an hour.

At the request of the board a periscope was attached to the boat in one of these tests to try its efficiency. This device, used with much success in the boats of the French navy for ascertaining the position of objects on the surface when the boat carrying it is submerged, consists of a mirror at the top of an iron tube about 15 feet above the deck amidships, its lower end being in the hold of the boat, where the observer stands. The reflection of objects on the surface is conveyed to him by a system of lenses. This iron tube interfered with the trial, for its local attraction threw the compass out of adjustment, and it also retarded the speed of the boat sufficiently to upset slightly the calculations of Capt. Cable while steering under water. In the final report the board recommended invention toward the improvement of this device. The tests of the Moccasin were equally successful. She exceeded the required speed in both the surface and awash tests, and in her speed trial when submerged she made the remarkable record of 7.28 knots, making her the fastest submarine boat in the world. At her torpedo trial a heavy sea was running, driven by a stiff east gale, and the water looked like a rock awash. Going at full speed, the Moccasin
approached the 2 flags marking the beginning of the mile. A few seconds before she reached them, at 1:25 P. M., she made her dive, and then for more than ten minutes nothing was seen but about 4 feet of the 12-foot mast she carries, with a tiny red flag on top, as it pushed its way through the water; turning at the mile in twenty seconds, she began her return trip over the mile course at the same depth and going as straight as if the helmsman's head had been above the surface of the water. Rising for thirty-five seconds just after the mile-and-a-half mark was passed, Capt. Cable took a peep at the flags marking the place where the imaginary war-ship that he was to destroy was placed. The porpoise-shaped nose of the lit-

The amount of the penalty will be refunded if the other submarine boats exceed the speed re-

requirements.

Of the nations leading in the construction of submarine boats at the close of 1902 France had built or building 44, Great Britain 10, and the United States 7. Norway has adopted the Hol-

land model, and the De Schelde Ship-Building Company, of Flushing, has obtained from the American owners the right to build Holland sub-

marine boats for the Netherlands and Dutch In-

dies for twenty-five years, including the use of all existing and future patents issued to the Amer-

ican company.

Portugal is negotiating for the Holland boat,

tle boat came to the surface a few minutes later for a second peep of thirty seconds, and the next time her bow came up it was to fire the tor-

pedo. She pointed fairly between the 2 flags at the end of the mile and about 100 feet away when the torpedo shot out of its tube about 3 feet below the water-line. For some reason the mech-

anism of the torpedo made it describe a course to the left of the intended mark. That was no fault of Capt. Cable or his crew, for they fired the missile absolutely straight. Those who watched it say that it would have struck a ship even though its flight had been somewhat erratic.

The board, in reporting, Dec. 1, 1902, on the Adder, found that the vessel successfully met the contract requirements and recommended its ac-

cceptance by the Government, though it recom-

mended further tests and some minor structural changes. Jan. 10, 1903, it was announced that the submarine torpedo-boat Adder had been accepted by the Government, subject to a penalty of $800 for failure to comply with certain requirements.

and several other governments have made appro-

priations for purchase and experiment. Of the British boats, 5 are of the Adder-Moccasin type. The first of these was launched in September, and partici-

pated in the naval maneuvers at Port-

mouth, and while the officers in charge maintain the utmost reticence as to details, it is generally understood that the tests were satisfactory. Nov. 25, 1902, a new type of boat, the joint invention of Messrs. Vickers Sons & Maxim, who are also building the Holland boats, received its unofficial tests in the Irish Sea. In its speed records it is reported to have exceeded the first of the Holland boats, though no figures have been given out.

It is also announced that a company has been formed under the title of the British Submarine-

Boat Company which has acquired the patents of the well-known French inventor M. Claude Goubet, 2 submarines already built by him, and all his inventions relating to submarine naviga-

tion. In addition, the company has secured the services of M. Goubet, his son, and another
trained assistant, who will henceforth live in England and carry on the work of building Gou- bett submarines.

When Admiral von Tirpitz was in the United States, serving upon the staff of Prince Henry during his visit, he said that Germany was not ready to set her inventors at work upon subma- rine boats, preferring to use all her constructive ability in improving her battleships and cruisers. Nevertheless, she is giving some thought to the subject, and her first boat was delivered in September, 1902. The details of its construction have been kept secret, but it is understood that it is built after a combination of the plans of the Hohenzollern and the Scylla. It is a small boat, about 35 feet in length, and was built in the United States.

France is experimenting, with as nearly abso- lute success as its means will allow, with new inventions, and during the year the Ministry of Marine has given orders for several new types of boat. They also announce the invention of a telescopic periscope the organisms to survey the surface from a depth of 15 meters. The maximum depth permitted by the former instrument was 9 meters.

During the naval maneuvers off Hyères, in Au- gust, 1903, on the French Mediterranean coast, the submarine boats Gustave Zéédé and Gymnote were sent out from the harbor to attack the fleet representing the enemy. Traveling at a depth of 10 to 15 feet below the surface, they reached the fleet and "torpedoed" 3 battleships, the crews of which were unaware of the presence of the subma- rines until the "torpedoing" was done.

SUNDAY-SCHOOL CONVENTION, IN- TERNATIONAL. The tenth International Sunday-School Convention met at Denver, Colo., June 26 to 30. The Rev. B. B. Tyler, D. D., of Denver, was chosen presiding officer for the ses- sions. The general secretary's report presented a survey of the past three years of Sunday-school work in affiliation with the convention. There were now 35 paid workers in 45 associations. In educational work, 1,300 normal classes had been reported, with 14,000 members, and the organized work was in excellent condition. The organiza- tion of the last State, Nevada, had just been completed, and the organization of the departments had just been reported. More than 125,000 members had come into the churches from Sunday-schools dur- ing the past year. Statistics were presented showing that in the United States there were 130,920 Sunday-schools, with 1,414,589 teachers and 11,462,414 pupils; in Canada, 10,220 schools, 83,156 teachers, and 865,870 pupils; in all North America, including, besides these, Newfoundland and Labrador, Mexico, the West Indies, and Central America, 152,959 schools, 1,511,188 teachers, and 12,297,405 pupils; and in the whole world, 234,601 schools, with a total membership of 23,856,582 teachers and pupils. A report of the work done in the South under the direction of the late Rev. L. B. Maxwell, field secretary, re- lated to the organization of the international work among nearly 2,000,000 colored people. The Lesson Committee reported that the total expense involved in its last three years' operations had been met by 27 publishing houses, and that for the next triennium $14,000 had been pledged by individuals and delegations for the international field. An important question was raised as to the advisability of setting up a separate institution for the intermediate classes. A begin- ner's course has already been tentatively used, satisfactorily, for one year. The report of the Lesson Committee favored the adoption of the graduated system, with the beginner's course, and a course for advanced classes, dealing with the prophetic, epistolary, and apocalyptic parts of the Bible, and was accompanied with the outline of an experimental course for two years. The plan of the committee was not adopted by the convention, except that it authorized the prepara- tion of a series of special primary lessons. It directed that "one uniform lesson for all grades of the Sunday-school shall be selected by the Lesson Committee as in accordance with the usage of the past five lesson committees; provided that the Lesson Committee be authorized to issue an optional beginner's course for special demands and uses, such optional course not to bear the official title of International Lesson. Resolved, That at this time we are not prepared to adopt a series of advanced lessons to take the place of the uniform lessons in the adult grade of the Sunday-schools. The Lesson Committee is urged to consider the possibility of a manual of Bible-study may be secured by alternating at longer intervals—one of more years—the selections from the Old and New Testaments respect- ively. Resolved, That this convention reaffirm the instructions on the subject of temperature lessons adopted at Pittsburg and reaffirmed at St. Louis and Boston. A committee was provided for to consider what means should be taken in the various States and provinces to secure the reading of the Bible without comment in the public schools.

Notwithstanding this action, the friends of a graduated series of lessons continued to urge their views, and even to give formal expression to them. The Executive Committee of the West- ern section of the American Sunday-school Union met at Philadelphia in the later days of October to- instructed its Committee on Sabbath-Schools and Young People's Societies to select a course of Bible Lessons for school and day-schools for the use of the next meeting of the section for consideration; and this committee, at its meeting, Nov. 13, appointed a subcommittee to prepare the course.

The Council of Seventy of the Institute of Sacred Literature in November published a call for a national convention to consider methods for improving the efficacy of Bible teaching in the Sunday-school, the home, the college, and elsewhere. In its resolutions it declared "that the religious and moral instruction of the young is at present inadequate and imperfectly correlated with other instruction in history, literature, and the sciences; that the Sunday-school, as the pri- mary institution for the religious and moral edu- cation of the young, should be conformed to a higher ideal, and made efficient for its work by the gradation of pupils, and by the adaptation of its material and method of instruction to the several stages of the mental, physical, and moral growth of the individual; that the home, the day-school, and all other agencies should be de- veloped to assist in the right education of the young in religion throughout the world; but a conviction had grown up among many persons interested in Sunday-school work that this was not the wisest plan, and that a graded system of lessons adapted to the age and degree of advancement of different classes of pupils would be preferable, with an elementary series for the younger pupils, advanced courses for the older ones, and lessons like those at present in use for the intermediate classes. A begin- ner's course had already been tentatively used, satisfactorily, for one year. The report of the Lesson Committee favored the adoption of the graduated system, with the beginner's course, and a course for advanced classes, dealing with the prophetic, epistolary, and apocalyptic parts of the Bible, and was accompanied with the outline of an experimental course for two years. The plan of the committee was not adopted by the convention, except that it authorized the prepara-
and moral instruction could best be promoted by national organizations. A devoted exclusively to the purpose, the convention was called to assemble in Chicago, under the auspices of the Council of Seventy, in February or March, 1903, for the creation of such a national organization; the convention to consist of members and associate members of the Council of Seventy; invited teachers, ministers, and editors; and invited pastors of churches and superintendents of Sunday-schools.

According to the ninety-eighth annual report of the British Sunday-School Union, 7,443 schools, with 138,104 teachers and 1,500,242 pupils, were affiliated with the union at home; 1,130 schools, with 20,280 teachers and 210,010 pupils, in the Scottish National Sunday-School Union; 802 schools, with 9,090 teachers and 96,351 pupils, in 7 colonial unions; and 6,846 schools, with 10,573 teachers and 237,794 pupils, in the India Sunday-School Union; making, together with the numbers returned by the Buenos Ayres Sunday-School Association, a total of 15,842 schools, 195,648 teachers, and 2,082,608 pupils. The General Benevolent fund had received £1,003, including £1,000 contributed by the Prince of Wales, £1,964 had been received for continental and Indian work, and £1,964 for three children's homes and the Teachers' Home of Rest. The enterprises of the union had been greatly expanded, and it was seeking to extend Sunday work abroad as well as at home.

SWEDEN AND NORWAY, two kingdoms in northern Europe, united under the same sovereign, in Nov., 1814, but independent of each other in Constitution, government, and laws. Affairs common to both kingdoms are decided by a Council of State composed of Swedes and Norwegians. The throne in each monarchy passes in the order of primogeniture and in the male line to the descendants of Marshal Bernadotte, Prince of Ponte Corvo, who was elected by the Swedish Diet in 1810 to be the heir and successor of Carl XIII, the last sovereign of the house of Holstein-Gottorp. The reigning King is Oscar II, born Jan. 21, 1829, grandson of Carl XIV, the founder of the present dynasty, whom he succeeded as Carl XV on Sept. 18, 1872. The heir apparent is Prince Gustaf, Duke of Värmland, eldest son of the King, born June 16, 1858.

The Diet of Sweden, called the Riksdag, consists of a First Chamber, of 150 members, elected for nine years by provincial and municipal assemblies, and a Second Chamber, of 230 members, elected for one year by the towns by direct suffrage and 150 in rural districts either directly or indirectly as the majority decide, by natives of Sweden who own land assessed at a value of 1,000 kronor or have for five years farmed land assessed at 6,000 kronor or upward or pay income tax on 800 kronor. The qualified electors in 1899 were 6.7 per cent. of the population, and only 40.3 per cent. of them voted. The Swedish Council of State in the beginning of 1902 was composed of the following members: Minister of State, Baron Fredrik Wilhelm von Otter, appointed Sept. 12, 1900; Minister of Foreign Affairs, Carl Herman Theodor Alfred Lagerhjem, appointed Oct. 13, 1899; Minister of Justice, Per Samuel Ludvig Anerstedt, appointed Feb. 5, 1896; Minister of War, Jesper Ingwald Crusebjörn, appointed Oct. 27, 1896; Minister of Marine, Adolf Arnold Louis Palander, appointed May 31, 1901; Minister of the Interior, Julius Edvard von Kuffel, appointed Jan. 1896; Minister of Finance, Count Hans Hanson Wachtmeister, appointed July 16, 1897; Minister of Education and Ecclesiastical Affairs, Nils Ludvig Alcæson, appointed June 22, 1899; Minister of Agriculture, Albrecht Theodor Odberg, appointed March 31, 1900; Councilors of State, Dr. K. S. Husberg, appointed July 12, 1900, and Dr. Knut Hjalmar Hammerkjaerd, appointed Sept. 25, 1901.

The capital of Sweden is Stockholm, lying on the Baltic Sea, with a number of islands, connected by bridges and tunnels. It is a great commercial and manufacturing center, with a population of about 300,000.

The population of the town of Stockholms was in 1890 as follows: Stockholm, 300,624; Göteborg, 130,619; Malmö, 60,857; Norrköping, 41,005; Gdansk, 29,682.

The Army.—The reorganization of the army approved by the Diet in 1901 will be completed in 1913. The inddel, or cantoned troopers, will disappear. Every Swede, according to the new law, owes military service from the age of eighteen for eight years in the first and four years in the second ban of the Beväriling, and afterward for eight years in the Landstam. The period of service with the colors will be increased to forty-two days, and it is pending whether six-five days will be required. The marine troops, including the coast-artillery, serve three hundred days in all. The effective of the Swedish army in 1901 comprised 48 general and staff officers and 233 non-commissioned officers, 27,633 officers and men forming 55 battalions of infantry, 5,269 forming 56 squadrons of cavalry, 3,609 in the field-artillery, 633 in the fortress-artillery, 172 in the Gothenburg artillery, 991 forming 9 companies of engineers, and 772 forming 8 companies of train; total, 30,265, comprising 1,954 officers, 691 employees, 1,794 non-commissioned officers, 1,657 musicians, and 33,169 men, with 6,501 horses. The naval forces consisted of 2,613 officers, 80 employees, 450 non-commissioned officers, and 75 musicians, making a total of 1,288, on leave. The strength of the Beväriling was about 250,000, giving a war effective of 220,000 to all ranks, besides 200,000 men in the 8 classes of the Landstam. The infantry are armed with Mausers.

<table>
<thead>
<tr>
<th>Location</th>
<th>Square Miles</th>
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<td><strong>Total</strong></td>
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of 6.5 millimeters caliber, the reserve troops with Remingtons of 8 and 12 millimeters, the field- artillery batteries with 7-centimeter rapid-fire guns.

**The Navy.**—The navy of Sweden is intended merely for coast-defense. There are 10 first-class, 4 second-class, and 9 second-class turret-ships, 3 corvettes, 5 torpedo-cruisers, 13 gunboats and despatch vessels, and 15 first-class and 11 second-class torpedo-boats.

**Commerces and Production.**—The cereal crops in 1900 were 1,849,800 hectoliters of wheat from 75,400 hectares, 5,210,700 hectoliters of rye from 409,700 hectares, 5,210,700 hectoliters of barley from 229,700 hectares, 24,411,100 hectoliters of oats from 820,500 hectares, and 3,993,800 hectoliters of mixed grain from 120,000 hectares. Of beans and peas 858,300 hectoliters were raised on 48,290 hectares; of potatoes, 24,643,900 hectoliters on 157,500 hectares. The live stock on Jan. 1, 1900, consisted of 625,256 horses, 2,583,065 cattle, 1,263,786 sheep, and 8,103,809 hogs. The quanti- ty of iron ore mined in 1900 was 2,830,000 tons; the production of pig-iron was 518,787 tons; of bar iron, 329,965 tons; the exports of iron ore in 1899 were 1,629,011 tons; of pig-iron, 93,905 tons; of bar iron, 187,324 tons; the quantity of silver- lead ore mined in 1900 was 5,300 tons; of copper ore, 22,723 tons; of zinc ore, 61,044 tons; of man- ganese ore, 2,651 tons. The production of gold was 237,118 grams; of silver, 3,101,100 kilograms; of lead, 1,423 tons; of copper, 136 tons. The quantity of coal mined was 252,320 tons.

The total value of imports in 1899 was 504,- 787,451 kronor, and of exports 354,944,767 kronor. The imports of textile manufactures were 46,738, 248 kronor, and exports 1,579,218 kronor; imports of grain and flour were 49,327,777 kronor, and exports 4,850,580 kronor; imports of colonial goods were 38,634,760 kronor, and exports 135,290 kronor; imports of textile materials and yarn were 47,818,471 kronor, and exports 1,252,071 kronor; imports of coal and other minerals were 32,388,362 kronor, and mineral exports 21,421,509 kronor; imports of metal manufactures and ma- chinery were 74,605,197 kronor, and exports 22, 555,054 kronor; imports of live animals and ani- mal food products were 23,542,296 kronor, and exports 48,128,649 kronor; imports of hides, hair, and other animal products were 24,469,229 kronor, and exports 1,385,718 kronor; imports of raw and partly manufactured metal were 13,159,371 kronor, and exports 43,613,013 kronor; imports of timber and wood manufactures were 3,751,405 kronor, and exports 178,553,581 kronor; imports of paper and paper manufactures were 4,743,770 kronor, and exports 11,706,764 kronor; imports of other articles were 94,617,737 kronor, and ex- ports 30,158,575 kronor.

**Politics and Legislation.**—In the session of the Riksdag that opened on Jan. 15 the question of electoral reform created more serious division than that of universal military service in the pre- ceeding session. Some years ago the Govern- ment after much urging had presented a project that went too far for the Right without half satisfying the Left. The Government proposed in the bill that the male electors over the age of twenty-five years or over who are entitled to vote in their communes and have paid their taxes for two years and two votes to qualified electors were to be allowed to vote. The Left, however, had the matter decided by a two-thirds vote. Amend- ments to the Constitution can be enacted in like manner. The Council of State at the beginning of 1905, constituted on Feb. 17, 1868, was presided over by Johannes Vilhelm Christian Sten as Minister of State, who was head of the Department of the Interior and was composed further of the following Councillors of State and Heads of departments: Ecclesiastical Affairs and Pub- lic Instruction, Vilhelm Andreas Wexelsen; Justi- ce, Ole Anton Qvam; Agriculture, Wollert Ko- now; Public Works, Jörgen Gunderson Lövdén; Finance and Customs, Elias Sunde; Defense, Lieut.-Col. Hans Georg Jacob Stang. The delega- tion of the Government at Stockholm had the fol- lowing members: Minister of State, Otto Albert Bliehr; Councillors of State, Commodore Christian Sparre and Sören Tobias Arstad.

**Area and Population.**—Norway has an area of 124,445 square miles, and on Dec. 3, 1900, con- tained a population of 2,239,886, of whom 2,189,901 were males, and 1,087,479 males and 1,162,401 females. The area and population of the districts into which the kingdom is divided are given on the next page. The number of births was 20,399, of deaths, 6,053; of marriages, 20,450. The number of emigrants in 1900 was 10,951, of whom 10,965 emigrated to the United States, 112 to British America, and 104 to other countries.
Finances.—The revenue for the nine months ending March 31, 1900, was 78,627,000 kroner, of which 2,583,000 kroner came from direct taxes, 36,526,000 kroner from indirect taxes, and 24,135,000 kroner from other sources. The expenditures during the same period amounted to 75,866,000 kroner, of which 20,712,000 kroner were for defense, 5,344,000 kroner for debt, 18,650,000 kroner for public works, and 31,276,000 kroner for general purposes of government. For the year ending March 31, 1901, the total revenue was estimated at 99,547,070 kroner, including a cash balance of 3,783,200 kroner and 14,357,113 kroner raised by loan for railroads, telegraphs, and telephones, and expenditure was estimated at the same sum. For the year ending March 31, 1902, the budget balance at 97,300,000 kroner. Of the revenue the income tax yielded 5,500,000 kroner, the excise tax on spirits, 4,800,000 kroner, the malt tax 4,100,000 kroner, the succession tax 800,000 kroner, stamps 1,700,000 kroner, judicial fees 1,100,000 kroner, mines 449,000 kroner, the post-office 5,300,000 kroner, telegraphs 3,500,000 kroner, state property 4,105,154 kroner, railroads 12,808,000 kroner, miscellaneous sources 7,025,458 kroner, and loans for railroads, telegraphs, and telephones 11,444,793 kroner. Of the expenditures the civil list took 922,032 kroner, the Storting 7,573,800 kroner, the National Assembly 10,891,776 kroner, the Church and education 10,081,485 kroner, justice 7,392,929 kroner, the interior 13,709,929 kroner, the post-office, telegraphs, etc., 10,330,330 kroner, state railroads 19,924,174 kroner, roads, canals, and posts 4,664,176 kroner, finance and customs 4,282,572 kroner, mines 608,150 kroner, amortization of debt 2,591,559 kroner, interest 7,481,357 kroner, the army 13,800,600 kroner, the navy 4,120,000 kroner, foreign affairs 781,158 kroner, miscellaneous expenses 4,678,773 kroner.

The amount of the public debt on March 31, 1900, was 231,984,994 kroner. Rural communes raised 10,837,806 kroner of taxes in 1899 and townships 15,371,137 kroner. A loan of 35,000,000 kroner at 3½ per cent. redeemable in sixty years was obtained from Scandinavian banks in January, 1902.

The Army and Navy. The land forces of the kingdom are divided into troops of the line, the Landvaeren and the Landsturm. Without the consent of the Storting the troops of the line actually under arms are never in excess of war, exceed 18,000 men. They number about 30,000 men, with 900 officers, and the Landvaeren and Landsturm number about 40,000 with 800 officers. Norway has a small navy for coast-defense consisting of 4 English-built turreted-ships, 4 monitors, 31 gunboats, and 31 torpedo-boats.

Commerces and Productions. There were 185,905 hectares under cereal crops in 1900, yielding 102,010 hecctoliters of wheat, 1,284,230 hecctoliters of barley, 3,401,250 hecctoliters of oats, 301,940 hecctoliters of rye, and 442,940 hecctoliters of mixed grain. The production of peas was 72,800 hecctoliters. The potato-crop from 30,122 hectares was 8,640,390 hecctoliters. Grain and flour for 51,182,000 kroner were imported in 1899, the value of rye being 20,230,800 kroner. The value of meat imports was 8,223,000 kroner. The value of mineral products in 1899 was 4,642,000 kroner; of furnace products, 1,757,000 kroner. The catch of cod in 1899 was valued at 11,122,000 kroner; herring, 6,636,000 kroner; mackerel, 374,000 kroner; salmon and sea trout, 946,000 kroner; other fish, 4,663,000 kroner; lobsters, 544,000 kroner; oysters, 5,845 kroner; total value of fisheries, 24,291,000 kroner, in addition to which the North Sea mackerel fisheries, the bank fisheries, and the whale, walrus, and seal fisheries brought in 3,400,000 kroner.
German is spoken by the majority, in 5 the language is French, in Ticino it is Italian, and in Liechtenstein, or in Kaun, Romansch. The number of foreigners residing in Switzerland in 1900 was 392,086. The number of marriages in 1900 was 25,538; of births, 98,419; of deaths, 60,572; excess of births, 38,847. The number of emigrants in 1900 was 3,816, of whom 931 came from Bern, 556 from Ticino, 468 from Zürich, 240 from Basel Stadt, 188 from St. Gall, and 1,433 from other cantons. The destination of 3,841 was the United States, while 341 went to South and Central America, 21 to Asia, 17 to Africa, and 16 to Australia.

**Finances.**—The revenue of the Federal Government, Industry, and Agriculture under the head of industry, 2,850,170 francs for agriculture, 659,900 francs for commerce, 25,900 francs for the Army, 365,000 francs for railways, 7,047,900 francs for the post-office, 11,744,199 francs for telegraphs, and 36,024 francs for miscellaneous expenses. The debt of the Confederation on Jan. 1, 1901, amounted to 95,424,267 francs, most of it paid 4% cent. interest. The Confederation owned real property worth 54,396,865 francs, 31,463,671 francs of securities, works producing profit worth 32,890,011 francs, 20,180,281 francs worth of shares, 352,190 francs of collectible debts, 38,233,021 francs in special funds, and 8,744,652 francs in the alcohol régie, railroads, and cash on hand; total, 186,732,810 francs.

The Army—Switzerland has a militia system in which schoolboys at the age of eight begin their military exercises, and shooting and other military accomplishments are prominent among the schoolboy population. The cantons maintain the infantry and the main part of the cavalry and artillery. The Federal Government provides for their military training and maintains the cavalry guides, the artillery park, the train, the engineer corps, and the technical, administrative, and sanitary troops. Recruits of education and pecuniary means are selected for the engineers, artillery, and cavalry. Men who do not serve in the army pay a military tax of 6 francs and a supplementary annual tax proportionate to their means up to a maximum tax of 3,000 francs a year. The officials of the Confederation and half to the cantons. From the age of twenty to the age of thirty-two the men in the army belong to the Auszug or Élite, then till the age of forty-four to the mobil, and at an age of fifty to the Landsturm. The Landwehr is divided into 2 bands, the first comprising men between the ages of thirty-two and forty, the second those from forty-four to young men of sixty years of age. The annual contingent of recruits for 1900 was 16,234. The number of men enrolled in the Auszug and Landwehr was 252,598, and the number paying the military tax was 292,737. The effective of the Auszug on Jan. 1, 1901, was 114,843 infantry, 4,641 cavalry, 20,113 artillery, 5,507 engineers, 4,940 sanitary troops, 1,444 administrative troops, and 278 cyclists, making a total of 151,706 officers and men; effective of the first band of Landwehr, 40,840 infantry, 3,433 cavalry, 11,174 artillery, 4,461 engineers, 2,912 sanitary troops, 925 administrative troops, and 69 cyclists, a total of 63,734; second band of Landwehr, 21,069 infantry, 2,403 artillery, 718 sanitary troops, and 29 administrative troops, a total of 24,208; Landsturm, 44,506 infantry, 2,981 artillery, 12,077 pioneers, 113,762 auxiliaries, 7,441 sanitary troops, and 1,192 cyclists, a total of 278,556, of whom those classed as pioneers and auxiliaries are not provided with arms, and 16,000 receive a personal tax for two or three months in the first year, and in succeeding years the cavalry exercise annually for ten days and the other troops for three weeks every second year.

**Commerce and Production.**—Rye, oats, and potatoes are the chief farm crops, but vineyards and orchards occupy more land, and the mountain pastures are a greater source of wealth than all these. The exports of cheese in 1900 were 273,361 quintals; of condensed milk, 282,986 quintals. There were 124,896 horses, 4,685 mules and asses, 1,340,375 cattle, 219,438 sheep, 354,634 goats, and 555,261 pigs in 1901. The wine produced on 30,448 hectares of vineyards in 1900 was 2,103,255 hectoliters. The production of salt in 1900 was 492,841 quintals; of cement, 571,920 metric tons. The industries of the country are varied and highly developed, including watch-making, jewelry, textile manufacture of many kinds, leather and rubber, woods, mineral coal, iron, steel, preparations, metallurgy, paper-making. The quantity of beer brewed in 1900 was 2,186,372 hectoliters. The alcohol régie during the year ending Aug. 31, 1900, sold 35,006 quintals of spirits for drinking and 47,208 quintals of methylated spirits. The hotels of Switzerland are 1,896 in number, having a capital of 550,480,000 francs.

The total value of imports for consumption in the country was 1,296,506,617 francs in 1900, and the exports of domestic produce and manufacture were valued at 884,898,771 francs. The total value of effective imports, excluding goods in transit, was 1,217,373,005 francs, and of effective exports 894,991,205 francs. In the special trade of 1900 imports of merchandise amounted to 1,058,944,569 francs, and exports to 818,892,454 francs. Imports of coin were 95,899,917 francs, and exports 48,819,071 francs; imports of uncoined precious metals were 92,155,131 francs, and exports 17,387,246 francs. In the merchandise movement the imports of cotton and cotton goods were 80,399,333 francs in value, and exports 167,614,696 francs in value; imports of silk and silk goods 145,154,730 francs, and exports 224,609,565 francs; imports of wool and woolen goods 55,856,338 francs, and exports 18,768,441 francs; imports of flax and linen goods 12,612,505 francs, and exports 1,616,763 francs; imports of tobacco 104,523,900 francs, and exports 12,453,241 francs; imports of mineral substances 93,027,861 francs, and exports 4,794,241 francs.
Turkey.

Railroads, Posts, and Telegraphs.—The railroads in 1900 had a total length of 2,802 miles, besides which there were 290 miles of rack and cable railroads and tramways. The capital cost of the railroads proper was 1,249,779,489 francs, and of the other lines 37,101,906 francs; total, 1,286,881,395 francs. 1,722,423 passengers were carried, 1,529,423 francs, and expenses 79,303,177 francs. The number of passengers carried in 1900 was 54,512,071; freight traffic, 14,220,218 tons; receipts, 126,430,290 francs.

The post-office in 1900 carried in the internal service 93,648,364 letters, 39,602,827 postal cards, 37,175,298 book packets, etc., 987,901 samples, 117,231,417 new papers, and 3,361,455 parcels, and of foreign mail 21,139,703 letters, 15,657,275 postal cards, 8,561,425 book packet books, 935,961 samples, and 1,518,633 parcels. The internal post-office orders amounted to 692,829,863 francs; international orders, 59,778,482 francs.

The State telegraph-lines in 1900 had a length of 4,256 miles, with 13,478 miles of wire, and there were 1,412 miles of railroad and private telegraph-lines, with 8,954 miles of wire. The number of internal despatches was 1,577,874; international despatches, 1,694,371; despatches in transit, 617,917. The telegraph receipts were 3,051,882 francs, and expenses 3,043,992 francs; receipts from telephones were 6,220,857 francs, and expenses 7,115,206 francs. The length of telephone-lines was 8,907 miles, with 83,929 miles of wire. The number of conversations in 1900 was 26,026,772.

Politics and Legislation.—The acquisition of the railroads by the Confederation was completed in 1902 and the railroad bonds are being converted into 31-per-cent. federal bonds. The Federal Council on Aug. 19 issued a decree requiring religious congregations and orders not authorized by law to close in accordance with an article in the Constitution prohibiting the founding of new convents or orders or the reestablishment of such as have been suppressed. In the general election to the National Council on Oct. 26 the Radical-Democratic majority was considerably strengthened. The number of members, owing to the growth of the population, was increased from 147 to 167. For the future it has been a popular referendum that in apportioning 1 seat to 20,000 inhabitants only the Swis, not the total, population will be reckoned.

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TELEGRAPHY, WIRELESS. (See Wireless Telegraphy.)

TENNESSEE. (See under United States.)

TURKEY, an empire in eastern Europe and western Asia. The Government is an absolute monarchy, the laws which are founded on the Koran. The Sultan exercises supreme civil authority through the Grand Vizier and supreme religious authority through the Sheik-ul-Islam, whose appointment is made with the concurrence of the Ulama, a body composed of the highest acknowledged exponents of Mohammadan laws and doctrines, summoned by the muftis, who are the exponents of the Koran. The reigning Sultan is Abdul Hamid II, thirty-fourth ruler of the house of Osman and twenty-sixth since the caput of Constantinople in 1453, born Sept. 22, 1842, son of Sultan Abdul Medjid and brother of the deposed Sultan, and was expected to crown on Aug. 31, 1876. The throne descends to the senior prince born in the harem. The heir apparent is the Sultan's brother, Mohammed Rehad, born Nov. 3, 1844. The Privy Council, or Cabinet, was composed in the beginning of 1902 as follows: Grand Vizier, Kutchuk Said Pasha, appointed Nov. 17, 1901; Sheik-ul-Islam, Jemal-ed-din Effendi, appointed in September, 1891; Minister of the Interior, Memduh Pasha; Minister of Justice and Worship, Abdullah Han Pasha; Minister of War, Riza Pasha; Minister of Marine, Hassan Pasha; Minister of Foreign Affairs, Ahmed Terfik Pasha; Minister of Finance, Rewad Pasha; President of the Council of State, Mohammed Said Pasha; Grand Master of Artillery, Mustafa Zekki Pasha; Minister of Evkafs, Galib Pasha; Minister of Education, Zuhdi Pasha; Minister of Public Works and Commerce, Zebni Pasha.

Area and Population.—Turkey in Europe has an extent of 65,752 square miles, with 6,080,300 inhabitants; Asiatic Turkey, 565,394 square miles, with 17,545,300 inhabitants. The total area is 1,115,046 square miles.

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Area and Population.—Turkey in Europe has an extent of 65,752 square miles, with 6,080,300 inhabitants; Asiatic Turkey, 565,394 square miles, with 17,545,300 inhabitants. The total area is 1,115,046 square miles.
and the total estimated population 24,931,600, including only the territories at present under Ottoman administration. The countries under Turkish sovereignty, but no longer subject to the civil or military rule of the Ottoman Government, are Egypt, Bulgaria, Bosnia and Herzegovina, Samos, Crete, and the Ionian, having a combined area of 3,460,686 square miles and 17,746,779 inhabitants. Constantinople, the capital of the empire, has a population of about 1,125,000; Smyrna, 201,010; Bagdad, 145,000; Damascus, 140,687; Aleppo, 127,149; Beirut, 118,811; Salonica, 105,000.

**Finances.**—The available revenue of the Turkish Government is estimated at £ T. 13,961,700, and the normal expenditure at £ T. 15,354,000, leaving, unless it is averted by administrative and fiscal reforms, a deficit of £ T. 1,392,300. This estimate does not include the expenses of the external debt nor the revenues surrendered to the Council of the Debt Administration, viz., the Bulgarian, Eastern Roumelian, and Cyprus tributes, the tax on Persian tobacco, and the excise duties. A guaranteed loan of £ 25,000,000 sterling raised in 1883 on loans secured on the Egyptian tribute, the Tumbeiki loan of £ 900,000, and a loan of £ 5,909,080 raised in 1886 are not included in the debts administered by the international Council of Administration from taxes on salt, spirits, fisher-

ies, and silk, stamps, the tobacco tithes and répie, and other ceded revenues in 1801 were £ T. 2,189,787. The Eastern Tributes fell into arrears and part of the Cyprus tribute was kept back till the following year; moreover, some of the ceded revenues declined, so that the receipts from all sources were less than £ T. 2,189,787, at the end of which a reserve fund of £ T. 574,000 had been accumulated. The interest that the Council of Administration has been able to pay hitherto is 1 per cent. With increased receipts it may be raised to a maximum rate of 4 per cent., 20 per cent. of the amount received being set aside for amortization. The total amount of the Turkish debt outstanding on July 1, 1911, was £ T. 133,939,003, not including the war indemnity to Russia, of which £ T. 24,513,000 were still due, and £ T. 55,000 due to individual Russians, making the total £ T. 273,494.

**The Army.**—The Nizam, the Redif, and the Mustazhghi of the Ottoman army correspond to the active army, the Landwehr, and the Landsturm in Germany. The remunerations are very low. Recruits have to serve, the infantry three years, the cavalry and artillery four years in the Nizam with the colors, and three or two years respectively in its reserve, or they are assigned at once to the reserve and are drilled from six to nine months and one month annually in succeeding years. Any conscript after three months of active service in the Nizam can obtain an indefinite furlough by paying £ T. 50. After the Nizam period is past the soldiers belong four years to the first and four years to the second ban of the Redif, and then six years to the Mustazhghi. Christians and Jews pay an annual military tax of 30 piasters for every male. Nomadic Arabs escape conscription, and many of the Kurds as well, but those who are being enrolled, in Armenia, Kurdistan, and Mesopotamia, in a mounted militia, the hamadrich cavalry, under their tribal chiefs. The nizam and Redif infantry have been armed with Mausers, the European regiments with the new rifle of 7.65 millimeters, the Asiatic troops with one of 9.5 millimeters. There are 7 ordus, or army corps, drawn from as many military regions, with headquarters at Erzurum, Monastir, Erzinjan, Damascus, Bagdad, and Sanaa in their numerical order. The Seventh Corps is not recruited in Yemen, where few loyal troops can be raised, but mainly among the Turks of Asia Minor, who furnish some troops for the garrison of Tripoli and European Turks the rest. The effective of the Turkish army in 1901 was as follows: 663,000 infantry, in 948 battalions; 55,300 cavalry, in 202 squadrons; 56,720 artillery, with 1,356 guns; and 7,400 engineers, in 39 companies; total, 700,620 men. The war effort is computed at 1,500,000 men.

**The Navy.**—The principal ships of the Turkish navy are the Hamidijeh, of 6,700 tons; the Mesudijeh, of 9,000 tons; and the barbette cruiser Abdulkader. A contract was signed in 1901 for the construction of a new cruiser in the United States.

**Commerce and Production.**—The cultivated area in the Turkish Empire is about 44,000,000 acres. Forests cover 21,000,000 acres, but they are being rapidly diminished. About 1,000,000 hectoliters of wine are made annually, of which 150,000 hectoliters are exported. Silk and silk-worm eggs are exported. The production of oil of roses in 1901 was about 2,600 kilograms. The export of raw silk in the fiscal year 1901 was 4,453,244 kilograms; of silk waste, 178,905 kilogram-

s; of twisted silk, 151,482 kilograms; of cocoons, 133,975 kilograms; salt, 35,223 metric tons.

**Navigation.**—The number of vessels entered and cleared at Constantinople from and for foreign ports in 1900 was 10,787, of 10,277,272 tons, of which 3,169, of 410,289 tons, were sailing vessels and 7,618, of 9,866,983 tons, were steamers. Of the vessels 6,040, of 6,723,312 tons, were Turkish; 2,661, of 4,250,848 tons, were British; and 2,323, of 1,589,861 tons, were Greek. The total number of vessels entered and cleared during the year was 14,394, of 10,475,728 tons. The number entered and cleared at all Turkish ports in 1898 was 173,739, of 34,653,457 tons. The merchant marine in 1900 comprised 2,005 sailing vessels, of 141,050 tons, and 177 steamers, of 55,983 tons.

**Railroads, Posts, and Telegraphs.**—The length of railroads in 1900 was 2,980 miles, of which 1,267 were in European Turkey and 1,713 miles in Asia Minor. A railroad from Konstanta to Bagdad and Koweit is planned by a German syndicate, one from Damascus to Aleppo by French capitalists, one is being built with British capital from Damascus to Medina, and another by the Turkish Government from Damascus to Medina and Mecca.

The Turkish post-office during 1898 forwarded 11,580,000 letters and postal cards and 2,583,000 samples and printed endorsements in the domestic and 6,046,000 letters and postal cards and 3,560,000 samples and printed endorsements in the international service.

The telegraphs have a length of about 23,440 miles, with 38,400 miles of wire. The receipts amount to £ 269,700 and expenses to £ 284,280 a year.

**The Island of Thasos.**—Mehemet Ali, the first Viceroy of Egypt, received from the Sultan Selim I, as a reward for services rendered in Arabia, the island of Thasos, in the Egean. It is a place of great strategical value, because it commands the entrance to the Dardanelles. The island has been administered by the Egyptian Wafi, and its revenues are devoted to the maintenance of a school of Mohammedan theology. The Turkish Government has contended that only the usufruct was granted, while Egyptian authori-

ities hold that the whole is Turkish. The Egyptian Government has collected only
Turkey.

£ 7,000 taxes from the island and has supplemented this with an equal amount in order to keep up the rigorous discipline required. In 1902 the Egyptian commissary levied a goat tax, not merely in order to add to the revenue, but to preserve the trees which the multitudes of goats were destroying. The people refused to pay the tax, and when it was enforced they resisted. There was a fight in which many persons were wounded. The Sublime Porte therefore ordered the incorporation of the island as a new district in the vilayet of Salonica. A Turkish administrator appeared with gendarmes and law officials and assumed jurisdiction and control. The Khedive sent the director of the Wakt to enforce his rights of property and administration, but he was not successful in doing so. The English authorities thereupon offered the Khedive their support, but their intervention was declined.

Political Disturbances. There was more unrest among the Christian populations of the Turkish Empire in 1902 than there had been for some years before, and a corresponding ferment was started among neighboring Mohammedan peoples. The financial embarrassment of the Central Government rendered any attempt at reorganization impossible, while that embarrassment was increased by the mobilization of troops for the prevention of rebellion. The restraining influence of the Austro-Russian accord alone kept the Macedonians from a general open revolt and caused a split among the Macedonians themselves, the majority of whom lost faith in Bulgarian aid, since Bulgaria was held in restraint by Russia, and planned a spontaneous movement for the creation of an autonomous Christian state within the Turkish Empire. The Albanians showed some tendency to break loose from Turkey and set up a separate Mohammedan state. Italians and Austrians were secretly busy in Albania endeavoring to foster their respective national interests and influence. The ill treatment of Servians by Albanians prompted Russia to establish a consulate in the country to watch over the safety of the Slav inhabitants. Neither Greece nor Servia would engage in a national question in the Mediterranean, and the Bulgarian propaganda relaxed, although the revolutionary desires of the Macedonians were keener than ever. The Armenians put forward their national aspirations. They held a congress in Brussels, and afterward revolutionary outbreaks occurred at Mesh and Sasun, which were rigorously repressed. The United States minister succeeded in getting from the Porte indemnities for the American schools and missions that were destroyed by the Turks in the Armenian outbreak of 1895. The Gregorian patriarch obtained an indemnity recalling the exceptional laws under which the Armenians have suffered ever since by convincing the Sultan that the masses of the Armenians are loyal to his rule. Until the Hinterh and other secret societies bred a revolutionary spirit among the Armenians they were the most favored race next to the Turks in the whole empire and were known distinctively as the loyal community. The Arabs betrayed their characteristic aversion to Turkish rule that is always manifested when the resources of Stamboul are crippled. A difficulty arose with Italy regarding piracy in the Gulf. The Italian Government notified the Porte that if this was not stopped it would take measures itself to do so. An ultimatum was sent to the Arab authorities, and when there was no reply the Italian squadron sank the pirate dhows of the island of Midi and the Turkish troops captured the chiefs, two old Turkish cruisers having been repaired and sent to Yemen with troops to accomplish this purpose.

The French Government in a similar spirit desired to protect its commerce. An English gunboat bombarded Balhaf, the chief of that town having plundered a British ship that was wrecked on the coast. Koweit, at the head of the Persian Gulf, has been taken under the protection of Great Britain, and the Vali of Busra was thwarted in his efforts to reestablish Turkish authority over this stronghold, important for naval purposes and also a more commanding position in the Arabian peninsula than the rugged promontory of Aden, where Great Britain has extended its territory up to the edge of effective Turkish occupation, whereas in central Arabia effective Turkish possession is impossible without a military effort that the Porte has not the means of making at present. The Sheik of Koweit has been aided before in asserting his independence, and with British aid he has successfully defied the Turks, although Busra was made a separate vilayet in 1889 for the purpose of organizing Turkish rule in this part of Arabia. The Wahabis in the interior are supplied from Koweit with the means of maintaining their rebellion against the Turks, while their embassies at Koweit forbid the landing of a Turkish force to subdue the rebellious Sheik Mubarak. The position of the latter, however, can only be made secure by a large and permanent force ready to protect him against rival claimants. One of these, Ibn el Rashid, Emir of Nejd, attempted in September to attack him by land and water, and a serious movement for the creation of an autonomous Islamic state within the Arabian peninsula was advocated. The British Government called upon the Porte to punish the Emir of Nejd, but the Vali of Busra did nothing. The dhows in which a part of the attacking force came were captured by British sailors, one of whom was killed. Germany has permission to extend the Bagdad river to Koweit, which lies at the mouth of the Tigris, and is unwilling that England by means of intrigues with Arab chiefs shall establish territorial claims in this part of Arabia, and British claims are not yet recognized by Russia or any of the other powers. The Turks took more active measures for the suppression of piracy. The British alone have encouraged the rebellious Arabs in their revolt against Turkey and questioned the sovereign rights of the Sultan over the peninsula, compelling him to keep an army corps in Yemen and one on the other side of Arabia. Turkish sovereignty is not questioned in the holy places. The extension of the British protectorate over the part of Yemen lying behind Yemen was obtained by aiding a few rebellious tribes in their resistance to Turkish authority. The Sultan of Makalla and Chahar is desirous of setting up an independent kingdom, and if the British give him effective support they may establish a protectorate over a large part of Yemen, where their interests do not come into conflict with those of other powers as directly as in the Persian Gulf.

Two commissions have been sent to delineate the British sphere in theHintorian of Aden, and neither reached a definite conclusion on the matter. The Turkish Government will not admit the British extensions, which have been accompanied by the demolition of Turkish fortifications and the British authorities are content to continue to keep the question open. In the Gulf of Aden, pending the negotiation of a more definite arrangement, the Porte agreed with Great Britain to maintain the status quo and not to attempt to improve that position for the subjugation of the Sheik of Koweit.
UNITARIANS, The reports of the American Unitarian Association were given by 440 ministers, 452 societies, and 71,000 members. The annual meeting of the American Unitarian Association was held in Boston, Mass., May 27. The president, Rev. E. Stiles Gannett, opened the meeting with a prayer, and the report of the secretary was read. The report of the secretary showed that the number of new members had increased from 1,800 last year to 2,200 this year. The financial report showed a deficit of $2,500, but no intention existed at present to undertake the establishment of Unitarian churches in Cuba. The work of special committees on investigating the condition of our American Indian missions was not completed, but no intention existed at present to undertake the establishment of Unitarian churches in Cuba. The report of the National Unitarian Temperance Association showed a small but steady advance in the number of members and friends of the movement. The statistical reports of this Church for 1902 give it 501 ministers, 820 churches, and 63,390 communicants. The bishops, in their quadrennial address to the General Conference in October, represented that the net gain in members for four years had been 4,200. During the same period 27,279 conversions had been reported, and 29,462 admissions by confession of faith. The gain in itinerant preachers in four years had been 75, while the number of local preachers, 214, remained exactly the same. The contributions during the quadrennium had been $201,688 for missionary purposes, $77,295 for other conference collections, $117,412 for Sunday-school work, $710,371 for preachers' salaries, and $508,641 for building and repairing churches and parsonages, in the sum of $1,675,837. One hundred and thirty-six churches and 84 parsonages had been added, and the total valuation of church property—$2,751,507—had increased $364,908, or 41 per cent.; but there were still 159 organized congregations without a church building. Of the educational institutions, Central
Pennsylvania and Albright Colleges had been united into one, called Albright College, and Dallas (in the state of Pennsylvania) was the new College. The per capita missionary contributions had increased from 70 cents in 1898 to $1.13, or 61 per cent. The report of the statistical secretary gave the following results for the years during the past four years: In membership, 7.2; in preachers, itinerant and local, 11.7; in organized congregations (three years), 5.4; in Sunday-schools (present number 887), 13.1; in average attendance on the same (53710), 6.2; in Keystone League Christian Endeavor Societies, 2.4, with a small decrease in active membership; in Women's Missionary Societies (221), 37.5; in active membership of the same, 37.1; in Young People's Missionary Societies (32), 120 and 120 per cent. in their membership; in mission bands (129), 30.6, and 61 per cent. in their membership; in aggregate circulation of periodicals, 18.4; in missionary collections—conference treasury, 34.6; general treasury, 109; in average missionary contribution per member, 60; in average contribution per member as a percentage of the salary ($317), 19.2; in average contribution per member for preachers' salaries ($3.17), 18.2.

The Board of Church Extension reported to the General Conference that its receipts for four years had been $1,649, and its expenditures $2,179. Six churches had been aided during the time. The receipts for the past year had been $449.

The total volume of business of the publishing house at Harrisburg, Pa., for the past year had been 605,754, showing an increase of 3,258 over the previous year. The net profit for the year had been $2,402.

The charitable society had received $2,402 and expended $31 in four years, and returned its resources on Oct. 1, 1905, as $3,530. A by-law of the society provides that none of the income arising from its revenues or investments shall be distributed till the fund amounts to $10,000.

The receipts of the Missionary Society for the year ending Oct. 1 had been $21,286, and the expenditures $20,872. The Conference Missionary Societies had received $40,109, and expended $85,741. The Woman's Missionary Society had received $18,706, and expended $18,250. The amount of the foreign mission fund—$3,905 having been added during the year—was $9,742; and the receipt of $46 for the First Church in China was one of the annuities made by the society to the General Conference gave the total receipts for four years as $204,142, and the expenditures as $253,721. The appropriations for 1902-03 amounted to $66,600.

The General Conference met at Williamsport, Pa., Oct. 9. The report on education gave accounts of the three higher institutions—Albright College, Myerstown, Pa.; Western Union College, Le Mars, Iowa; and Dallas College, Dallas, Ore.; and embodied a declaration, which was adopted by the conference, that the demand upon the Church is imperative to furnish its youth the opportunity for thorough education in its own institutions, and under the guidance and influence of men and women of its faith. Regulations were adopted for the government of the theological institutions and theological departments in schools, prescribing that all the members of the Boards of Trustees controlling such departments shall be members of the Church and shall, at the request of the Board of Trustees, sign a declaration promising "to uphold the doctrines, discipline, and polity of the United Evangelical Church; that each teacher shall be likewise a member of the Church, and shall, before he enters upon his office as a teacher and each successive year, sign the declaration against the teaching of doctrines, discipline, and polity," so long as he remains in connection with the institution.

Provision was further made for dealing with teachers offending against these rules, and each theological school was made amenable to the annual conferences under whose control it stands, to which it was required to report. A post-graduate course of study for preachers was adopted. A new article on church extension was adopted for insertion in the Discipline, contemplating the reorganization of the society on such a basis as shall enlist the entire Church in its work. The election of a corresponding secretary of the Missionary Society was recommended, he to be without salary except such compensation as may be given him for actual service in canvassing the Church. The interest of the conference was expressed in the newly established mission at Changsha, China; the purchase of property there was advised; the establishment of a training-school in connection with the mission was directed. All forms of Sabbath observance were disapproved, the general observance of the Lord's Day. Resolutions on moral reform and temperance took cognizance of "the various current aspects of temperance action and discussion and the standard of personal purity, emphasized the importance of steadfast adherence to the rule of the Church on divorce (for adultery only), and expressed opposition to all monopolies injurious to healthy competition. The interests and organization of Sunday-schools and Christian Endeavor Societies were recognized in resolutions embodying suggestions as to their conduct. A complete change of bishops was effected, the Rev. H. R. Hartzler, D. D., editor of The Evangelical and the Rev. William F. Heil being chosen to that office, while Bishop W. M. Stanford was elected editor of The Evangelical and The Lutheran. The year 1906 was one of greater activity than ever before in the United States. The new American republic in North America. The legislative power is vested in the Congress, consisting of the Senate and the House of Representatives. There are 90 Senators, 2 from each State, elected by the State Legislatures for six years, one-third being renewed every second year. The House of Representatives has 357 members, elected in the congressional districts, into which the States are divided on the basis of the population shown in the last preceding decennial census, for two years by the ballots of all persons qualified to vote in State elections, in most States by universal adult male suffrage. Each House of Congress is the judge of the elections, returns, and qualifications of its own members. No person holding office can while continuing in office be a member of either House. Senators must be thirty years of age, citizens of the United States for nine years, and residents of the States in which they are chosen. Representatives must be twenty-five years of age, citizens for seven years, and residents of the States from which they are elected. The executive power is vested in the President of the United States, who is commander-in-chief of the military and naval forces, can lay before Congress projects of legislation, is empowered to
make treaties, subject to the ratifying vote of two-thirds of the Senate, has power to veto acts of Congress by laying and carrying over the veto by a two-thirds majority in each House, commissions the officers of the army and navy, and appoints the civil officials of the Government, subject to confirmation by the Senate. The Vice-President is ex officio President of the Senate, and in case of the death, resignation, or removal of the President he succeeds to the powers of the latter during the remainder of the term. The President and Vice-President are elected for four years by colleges of electors chosen in each State in such manner as the legislature prescribes, which is in every State by popular suffrage, their number in each State being equal to the number of Senators and Representatives of the State in Congress. It has become the custom of political parties to nominate in national convention their candidates for President and Vice-President, and the electors, chosen in each State on a collective ticket, are accustomed to vote solidly for the candidates designated by their party. This is the precedent. The election of the President and Vice-President is effected in reality, though not in form, by the direct vote of the nation. The presidential term is four years. Powers not delegated to the Federal Government are reserved to the States. Congress has power to legislate in matters of and pertaining to Federal taxation, treaties, and other dealings with foreign powers, the navy, the army, to a certain extent the militia, foreign and interstate commerce, the postal service, coinage, weights and measures, and crimes against the United States. The President is elected at the head of the executive and a Legislature composed of two Houses, both elective. The revenues of the State governments are derived from direct taxes on real property or on both real and personal property, while Congress is forbidden in the Constitution to levy direct taxes save in proportion to population. Personal and property rights, the civil and criminal law, education, the public health, charities, the control of corporations, are matters of State legislation.

The President of the United States for the term ending March 4, 1901, Theodore Roosevelt, of New York, born in 1858, who was elected Vice-President in 1900 and succeeded to the presidency on the death of President William McKinley, Sept. 14, 1901; The President at the beginning of 1902 was composed as follows: Secretary of State, John Hay, of Indiana, appointed in 1889; Secretary of the Treasury, Lyman Judson Gage, of Illinois, first appointed on March 5, 1891; Secretary of War, Elihu Root, of New York, appointed on July 21, 1890; Secretary of the Navy, John Davis Long, of Massachusetts, first appointed on March 5, 1897; Secretary of the Interior, Ethan Allen Hitchcock, of Missouri, appointed in January, 1899; Postmaster-General, Charles Emory Smith, of Pennsylvania, appointed on Dec. 18, 1901; Attorney-General, Philander Chase Knox, of Pennsylvania, appointed on April 5, 1901; Secretary of Agriculture, James Wilson, of Iowa, first appointed on March 5, 1897.

On Jan. 9, 1902, Gov. Shaw of Iowa was appointed Secretary of the Treasury on the resignation of Secretary Gage. Leslie Mortimer Shaw was born in Morrissett, Va., Nov. 2, 1848, went to Iowa, where he was educated at the Newton University and Cornell College in that State at the age of twenty-three, earned his living while studying, read law, practised in Denison, became president of the bank of Denison, was drawn into politics by the currency issue in 1866, in the following year was elected Governor, was nominated by acclamation and reelected, and was serving his second term when called into the Cabinet.

On Jan. 9, 1902, Edward M., son of Robert W., born in Ashfield, Mass., Nov. 23, 1843, was educated at Shelburne Falls Academy, went to Milwaukee in 1863, was cashier in a dry-goods store at first, became active in the commercial development of electricity and in syndicating electric railroads and telephones, and was also an energetic political leader and manager in his State, served as postmaster of Milwaukee for ten years, and was a delegate to the National Republican Conventions in 1888 and 1892.

On April 29, 1902, William H. Moody, of Massachusetts, succeeded Mr. Long as Secretary of the Navy. He was born in Newbury, Mass., Dec. 23, 1835, graduated at Phillips Academy, Andover, in 1852, and at Harvard in 1876, studied and practised law, was district attorney for the Eastern District of Massachusetts from 1890 to 1895, was first elected member of Congress for the Sixth District of Massachusetts in 1880 and was a member of the House when he received his appointment.

Area and Population.—The land area of the States and Territories is 9,593,000 square miles, exclusive of the Indian Territory, which has 31,000 square miles, and Alaska, which has 531,000 square miles, and the Territory of Hawaii, which has an area of 6,864 square miles, making the total area 9,527,640 square miles, which does not include Territories belonging to but not a part of the United States—the insular possessions, Porto Rico, with an area of 3,455 square miles; the Philippines and Sulu Islands, having an area of 114,000 square miles; Guam, having an area of 200 square miles; and Tutuila and Manua, in the Samoan group, which, with smaller islands, have an area of 79 square miles; bringing the total area under the American flag up to 9,625,619 square miles. The States and Territories, according to the census of 1900, have a population of 74,005,515, exclusive of 392,000 in the Indian Territory, 63,592 in Alaska, 154,001 in Hawaii, and 91,219 soldiers, etc., abroad, increasing the total to 76,393,587, which is nearly the population of the United States and possessions not incorporated in the United States increases further to 85,271,700. The population of the North Atlantic division, comprising Maine, New Hampshire, Vincennes, and the District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida, forming the South Atlantic division of States, area 298,620 square miles, had 10,443,480, compared with 8,857,922; Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas, grouped as the North Central division area 753,550 square miles, had 26,333,044 inhabitants in 1900, against 22,410,417 in 1890; the South Central division, comprising Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas, area 579,215 square miles, had 13,687,987, against 10,989,859 at the former census; and Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, entered California, constituting the Western division, area 1,175,550 square miles, had 4,001,349 in 1900, compared with 3,102,289 in 1890. The number of 25 or more inhabitants in 1900 was 159, having increased from 124 since 1890, and the number of people living in


enemies, 558,740; private academies, 177,260; State universities and colleges, 36,201; private universities and colleges, 79,070; public professional schools, 10,360; private professional schools, 50,804; State normal schools, 43,352; private training-schools for teachers, 60,030; city evening schools, 203,000; private business colleges, 110,031; reform schools, 25,227; public deaf and dumb schools, 10,848; private schools for deaf and dumb, 494; public schools for feeble-minded, 11,149; private schools for feeble-minded, 498; Government Indian schools, 23,077; schools in Alaska, 3,856; private orphan asylums and other benevolent institutions, about 15,000; private kindergartens, about 95,000; art, music, elocution, cookery, etc., about 50,000. In both private and public graded schools and universities the total number of persons receiving instruction was 17,841,560; in special educational institutions, 17,882,750. The professional schools comprised 150 theological seminaries, with 968 professors and 1,607 students, of whom 181 were women; 100 law schools, with 1,105 professors and tutors and 13,642 students, of whom 170 were women; 123 medical schools, with 3,876 lecturers and instructors and 24,101 students, besides 21 homeopathic colleges, with 639 professors and 1,812 students; 67 dental colleges, with 1,184 instructors and 8,908 students; 28 schools of pharmacy, with 332 instructors and 4,850 students; 448 training-schools for nurses, with 11,509 students; and 12 veterinary schools, with 180 instructors and 461 students. An order was issued by the War Department last summer giving instruction for military instruction in the colleges and schools. Any school, college, or university that will undertake to maintain 100 of its scholars under military instruction will have one of the 100 officers of the United States army detailed for the purpose to instruct the students in the same way as soldiers of the regular army, and the Government will furnish rifles and ammunition and a limited number of field-guns for practising in firing.

The Army.—The legal strength of the United States army as fixed by the act of Congress approved on Feb. 2, 1891, is 37,901 regulars of cavalry, 750 officers and 12,620 enlisted men; 30 batteries of field and 126 companies of coast-artillery, 651 officers and 17,742 enlisted men; 30 regiments of infantry, 8,909 officers and 75,069 enlisted men; 3 battalions of engineers, 1,282 enlisted men; commanded by officers detailed from the corps of engineers; and the staff corps, Military Academy and West Point cadets, etc., 2,877 enlisted men. The total enlisted strength is 59,850, and the number of officers on the active list is 3,820. There were 100 officers and about 3,500 men in the Philippine native scouts and a Porto Rican regiment with 31 officers and 504 men, both bodies since disbanded. The army in the Philippines has been reduced from 40,000 to 17,000 men. The army act limits the enlisted strength of the United States army to 100,000 men. Recruits must be between eighteen and thirty-five years of age, of good physique, of good character, temperate, not less than 5 feet 4 inches in height, between 120 and 190 pounds in weight for infantry and under 165 pounds for cavalry and field-artillery, and able to speak and write English.

The National Guard of the States and Territories at the end of 1902 had 1,791 general and staff officers, 4,951 cavalry, 6,071 artillery, and 90,309 infantry. These numbers include 515 Indiana Territorial Volunteers, Guards, 48 Guam volunteers, 600 Porto Rican militia, and 73 Samoan volunteers. The State appropriations amount to the annual sum of $2,630,140. The number of militia authorized is 183,596. The total population liable to military service is 8,727,500.

The Navy.—The United States navy, completed and building or authorized, consists of 19 first-class battleships, 1 of the second class, 10 armored cruisers, 6 double-turret monitors, 4 single-turret monitors for harbor defense, 5 old monitors with low freeboard, 1 ram for port defense, 23 protected steel cruisers, 4 unprotected steel cruisers, 12 unarmored steel gunboats, 5 light-draft gunboats, 6 unarmored composite gunboats, 1 despatch boat, 1 dynamite cruiser, 1 training-ship, 18 destroyers, 36 twin-screw torpedo-boats, 8 submarine boats, 22 steam-vessels of the old navy, 13 wooden sailing vessels, 40 steam-propellers, 21 gunboats under 500 tons captured from Spain, and 3 auxiliary cruisers, 23 yachts, 16 colliers, and 11 special vessels purchased during the Spanish War; total number of vessels, 316, of which 223 were fit for service at the end of 1902, while 24 were not fit for sea service and 63 were not yet built or not completed. The newest battle-ships, costing from $3,000,000 to $4,000,000 apiece, have a displacement of 15,000 tons, a speed of 19 knots, 19 0.61-inch guns in the secondary battery, 12 4.7-inch rifles, 11 0.61-inch rifles, 8 1-inch, 12 3-inch, 2 6.1-inch, 8 4.7-inch, and 10 0.61-inch guns in the main battery, and the auxiliary armament will consist of 20 3-inch rapid-fire, 12 semi-automatic three-pounders, 2 field, and 8 machine guns. The armored cruisers, which cost as much as the battle-ships, have been increased in size to 14,500 tons in the latest development, with engines of 25,000 horse-power, giving a minimum speed of 22 knots, and their armament has usually been 4 8-inch breech-loaders and 14 6.1-inch quick-firing guns in the main battery and 18 3-inch, 12 three-pounders, and numerous smaller guns. The Tennessee and New Hampshire, authorized by Congress on July 1, 1902, will have the most powerful armaments of any cruisers, with the best protection, and a cruising radius of 6,500 miles at 10 knots and 1,000 miles at 16 knots. The hull will be protected by a 5-inch belt tapering at stern and stern to 3-inch thickness and extending from 5 feet below the water-line to the upper deck, while the upper deck is 2 inches thick. The armament will consist of 4 10-inch guns on the gun-deck, 22 3-inch quick-firing guns, and 1 8-inch quick-firing gun. The quick-firing battery 7 rounds can be served every minute.

The United States navy is manned by 1,346 commissioned officers, 461 warrant officers, and 29,205 men. The marine corps consists of 212 officers and 6,000 men.

Pensions.—There were drawing pensions on July 1, 1902, 4 widows and 4 daughters of soldiers of the Hawaiian National Guards, 1,317 widows of soldiers of the War of 1812; 903 survivors and 3,320 widows of soldiers who fought in the early Indian wars; 6,828 survivors and
8,017 affidavits of soldiers of the Mexican War; 277,905 army invalids, 87,046 army widows, 54,760 army nurses, 4,366 navy invalids, and 2,203 navy widows pensioned under the general laws on account of services after March 4, 1861; 438,118 army invalids, 148,201 army widows, 15,953 navy invalids, and 6,977 navy widows pensioned under the act of July 13, 1862, and 6,282 army invalids, 2,727 army widows, 329 navy invalids, and 127 navy widows of the war with Spain; total number of pensioners, 909,446. The amounts paid out during the year in pensions were $1,357,423,567 to 994,751 pensioners in the States and Territories, $11,845 to 96 pensioners in the insular possessions, and $646,529 to 4,036 pensioners outside of the United States.

Patents.—During the year ending Dec. 31, 1901, there were 43,973 applications for mechanical patents, 2,506 for design patents, 2,410 for trade-marks, 1,064 for registration of labels, 223 for registration of prints, and 115 for reissues of patents. The number of patents issued was 27,762, 2,683 reissues, 51; trade-marks registered, 1,058; labels, 676; prints, 878. The number of patents that expired was 19,147. There were 3,500 applications allowed that awaited the payment of fees, and 4,111 were forfeited for non-payment of fees. The United States was the reissue office of 3,843 patents of foreign countries, 21,245 of which were allowed, 1,045 patents to Germans, 908 to Englishmen, 370 to Scandinavians, 306 to French citizens, 156 to Austro-Hungarians, 66 to Swiss citizens, 55 to Scots, 54 to Belgians, 53 to Swedes, 37 to Italians, 35 to Victorians, 29 to Russians, 25 to Irishmen, 25 to New Zealanders, 20 to citizens of New South Wales, 20 to Norwegians, 19 to Danes, 16 to Dutchmen, 11 to Transvaaliers, 8 to South Australians, Argentinians, and Queenslanders severally, and 37 to other foreigners.

Public Lands.—Out of a total surface of 1,806,539,849 acres in the United States and Alaska 1,119,910,486 acres had been surveyed up to June 30, 1902, and 688,626,384 acres remained unsurveyed, including 365,100,311 acres in Alaska, mountain areas, unsurveyed lakes and rivers, private land claims, unsurveyed school lands and Indian and other reservations. The area of public domain subject to entry and settlement on July 1, 1902, was 391,579,307 acres, and of unsurveyed lands 501,705,109 acres; total, 893,284,416 acres. During the year 1,651,251 acres were patented, 4,843,846 acres; road selections, 156,132 acres; State selections, 2,508 acres. No lands were entered under the homestead and timber-culture acts. The forest reserves covered 4,909,890 acres in Alaska, 6,740,410 acres in Arizona, 8,784,009 acres in California, 3,113,180 acres in Colorado, 4,147,290 acres in Idaho, 7,427,320 acres in Montana, 205,902 acres in Nebraska, 3,338,080 acres in New Mexico, 57,120 acres in Oklahoma, 4,596,760 acres in Oregon, 1,177,129 acres in South Dakota, 1,029,760 acres in Utah, 7,006,000 acres in Washington, and 7,900,024 acres in Wyoming.

Commerce and Production.—The total value of foreign merchandise imported into the United States during the year ending June 30, 1902, was $203,210,948, compared with $182,722,165 in 1901. The total value of domestic exports was $1,355,481,601, compared with $1,460,422,506. Of the imports the value of $86,308,711 was brought in by vessels. Merchandise and manufactured products, $2,236,546; foreign coal, $102,198,002 in American vessels, and $744,706,253 in foreign vessels. Of the domestic exports the value of $115,967,630 was carried in land vehicles, $81,883,527 in water vessels, and $11,264,330 in foreign vessels. The total value of domestic exports, merchandise, and foreign, the foreign exports amounting to $203,237,240, was $1,381,719,401; total foreign trade in merchandise, $2,236,546. Imports were backed by $2,310,857,156 in 1901 and $2,244,424,296 in 1900. Of the domestic exports in 1902 the value of $851,460,312 represents agricultural, $39,075,999 mining, and $403,806,754 manufactured products, the proportion being 62.83:8.36:38.81 per cent, respectively. The total value of imported merchandise free of duty was $390,818,871 and the values of the various articles and classes of merchandise imported in the fiscal year 1902 were as follow: Chemicals, drugs, and dyes, free of duty, $7,474,670; coffee, $70,925,155; cotton, unmanufactured, $11,712,170; fruits, including nuts, $8,883,429; furs and fur-skins, undressed, $5,787,013; hides and skins, other than fur-skins, free of duty, $40,272,787; India-rubber and gutta-percha, crude, $22,852,977; paper stock, crude, $27,770,265; silk, unmanufactured, $42,635,361; textile grasses and fibrous vegetable substances, free of duty, $285,413; tin, $19,411,880; wood, unmanufactured, free of duty, $7,576,066; breadstuffs, $2,034,267; chemicals, drugs, dyes, and medicines, dutiable, $32,974,952; cotton, manufactures of, $44,460,192; earthen, stone, and chinaware, $8,988,156; flax, hemp, jute, and unmanufactured, $37,100,693; flax, hemp, jute, manufactures of, $38,370,205; fruits, including nuts, etc., $12,454,099; furs, manufactures of, $5,835,568; glass and glassware, $65,012,963; hides and skins, other than fur-skins, free of duty, $17,474,039; iron and steel, manufactures of, $36,488,995; jewelry and precious stones, $19,779,034; leather, and manufactures of, $11,317,785; metal objects, metal, and metal implements, $9,253,383; silk, manufactures of, $32,640,242; sugar and molasses and confectionery, $56,142,016; tea, $9,390,128; tobacco leaf, $15,211,671; tobacco, manufactures of, $2,484,822; vegetables, $7,039,835; wines, $8,921,138; wood and manufactures, dutiable, $16,967,534; all other dutiable articles, $130,655,015; all other articles free of duty, $144,774,469; total merchandise imports, $203,237,240.

The values of the exports of merchandise, the produce and manufacture of the United States in 1902 were as follows: Agricultural implements, $18,290,740; animals and animal products, $44,118,884;文章中提到的数字表明，美国在1902年的进出口贸易总额超过了200亿美元。国内出口总额为1,381,719,401美元，而进口总额为2,244,424,296美元。这一时期的出口商品主要包括棉花、咖啡、茶叶、橡胶、木材、医药用品、油漆、纸张、锡、玻璃、玻璃制品、皮革和皮革制品、各种金属制品等。进口商品主要以化学制品、药物、染料、木材和木材产品、食用油和油制品、棉花、家具和家具制品、金属制品、纺织品和纺织制品为主。
## UNITED STATES OF AMERICA (Commercial and Production)

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>Imports</th>
<th>Domestic</th>
<th>Foreign</th>
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<tr>
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<tr>
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<tr>
<td>Guam</td>
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<td>$4,000</td>
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<tr>
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<td>$800</td>
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<td>$82,200,000</td>
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The imports into the United States from Cuba were $34,584,984, and exports to Cuba, $25,100,453; imports from Porto Rico were $8,297,422, and exports to Porto Rico, $8,427,231. Exports from Hawaii were $24,700,429, and exports to Hawaii were $19,000,000; imports from the Philippines were $6,612,700, and exports to the Philippine Islands were $1,600,000. The increase in the former was over 7 per cent. from those of 1901. Exports of farm-products fell off most heavily. The decrease in corn exports was nearly $50,000,000, or nearly 25 per cent., and nearly $10,000,000 in copper, $2,000,000. The exports of manufactured goods fell off from $412,000,000 to $403,750,000, but apart from iron and steel and copper goods, there was an increase of $12,500,000 in dairy products, nearly $10,000,000 in butter, $27,000,000, and $5,500,000 in producing an average of 380 gallons of milk, 2,090,000,000 gallons altogether, worth, at 8 cents a gallon, $167,200,000; total value of dairy products, $50,750,000. The imports of American silver coin in the year ending June 30, 1902, were $3,870,369; of foreign gold coin, $12,393,992; of gold bullion, $8,486,745; and of gold in ore, $24,815,697. The imports of American silver coin were $518,397; of foreign silver coin, $3,751,444; of silver bullion, $6,013,078; of silver in ore, $7,055,635. The exports of gold coin were $29,370,841; of gold bullion, $37,234,010; of gold in ore, $18,587; of silver coin, $209,291; of silver bullion, $43,885,925; of silver in ore, $76,635. The total gold imports were $32,021,254; exports of domestic silver were $1,961,435, and of foreign gold, $1,807,512. The total silver imports were $28,232,254; the exports of domestic silver were $45,971,240, and of foreign silver, $3,761,414. The United States in the census year 1900 was 2,105,102,510 bales. Of wheat, 522,229,505 bushels: of oats, 809,128,589 bushels; barley, 48,925,433 bushels: of rye, 25,575,925 bushels; of corn, 126,711,996 bushels; of hay, 50,110,066 tons; of potatoes, 210,926,987 bushels; of rice, 285,750,000 pounds; of hops, 208,000 bales of 180 pounds: of flaxseed, 20,080,000 pounds of linseed, 11,564,567 pounds of apples, 175,397,626 bushels; of peaches, 15,435,623 bushels; of pears, 6,625,417 bushels. The number of farm animals on Jan. 1, 1901, was 13,537,534 horses, value $903,988,442; 2,066,127 mules, value $111,717,092; 16,592,360 cows, value $514,812,106; 27,010,054 oxen and other cattle, value $689,498,260; 41,893,065 sheep, value $339,964,701; total value, $2,212,756,578. There were 5,739,578 farms on June 1, 1900, of which 5,537,731 bad buildings. The total acreage was 841,901,546, of which 414,733,141 acres were improved and 426,408,355 acres unimproved. The total estimated value of farm property was $90,514,001,388; value of land improvements, $13,114,422,058; value of buildings, $3,860,183,191; value of implements and machinery, $761,291,550; value of live stock, $3,075,650,041; value of farm-products in 1899, $4,739,118,782; value of products fed to live stock, $293,441,049; value of products not fed to live stock, $3,764,177,760; expenditure for labor, $305,305,921; expenditure for fertilizers, $4,783,757; number of farms worked by owners, $3,713,571; number of number rented on shares, 1,273,368. The number of farms worked by white persons was 4,970,129; by negroes, 746,717. There were about 11,000,000 dairy cows in 1899. In California, 765,000 of a ton of butter, an average of 130 pounds, of the total value of $557,400,000, at an average price of 18 cents a pound; 1,000,000 cows producing 300,000,000 pounds of cheese, worth, at 9 cents a pound, $27,000,000; and 5,500,000 cows producing an average of 380 gallons of milk, 2,090,000,000 gallons altogether, worth, at 8 cents a gallon, $167,200,000; total value of dairy products, $50,750,000. The imports of butter in 1902 were 10,333,007 pounds to Great Britain, value $1,924,408; 206,582 pounds to Germany, value $32,080; 966,067 pounds to Canada, value $140,545; 140,428 pounds to Cuba, value $30,526; 1,311,313 pounds to Brazil, value $164,407; total quantity, 16,002,169 pounds, value $2,745,597. The number of hogs packed during the year ending March 31, 1902, was 30,325,000. The cotton-crop of 1902 was 10,701,453 bales averaging 487 pounds. The consumption of the United States and Canada was 4,539,018 bales and the exports to Europe were 5,448,787 bales; total, 10,979,805 bales. The consumption of Southern mills in the year ending June 30, 1902, was 4,037,000 bales. There were 21,559,000 spindles in operation, one-fifth of the total number in the world. The number of spindles in Southern mills increased from 1,500,000 in 1890 to over 5,000,000 in 1900. The sugar-crop in 1902 was 310,000 tons of cane-sugar in Louisiana and 163,126 tons of beet-sugar. The consumption of the United States in 1902 was 1,992,330 tons refined from imported sugar, including 300,070 tons from Hawaii, 66,279 tons



$20,780,766. The average toll per message was 22.7 cents.

The American Telephone Company on Jan. 1, 1901, had 523,103 miles of wire on poles, 17,847 miles on buildings, and 4,200 miles of submarine wire. The total length of wire was 1,729,819 miles. The number of exchanges was 1,411; branch offices, 1,594; number of circuits, 862,467; number of switches, 1,902,647; number of central office employés, 40,864. The number of instruments was 2,255,806. The number of conversations was over 2,245,000,000 during the year, an average of 7,351,701 a day. The long-distance telephone system had 14,880 miles of poles and cable and 198,684 miles of wire.

Railroads.—The length of railroads in the United States as estimated by the Interstate Commerce Commission was 197,237 miles in 1901, including 1,182 miles of unofficial lines. The increase in the year was 2,682 miles. The number of miles operated in 1901 is estimated at 195,886. The capital stock of the railroads was $5,978,796,249; bonded debt, $6,035,408,741; gross earnings, $1,612,488,826 in 1901; net earnings, $220,629,727; net capitalized investment, $1,495,305,169; net working capital, $283. The railroad mileage in 1902 is estimated at 195,886 miles, with 70,166 miles of second track and sidings; total length of track, 265,892 miles. The cost of railroads and equipment was $10,117,752,155, besides $1,076,516,412 invested otherwise. Including unfunded debt, sinking-funds, and current accounts, the total stock and liabilities amounted to $12,026,900,521, while assets were figured at $13,508,029,032, giving a surplus of $381,028,511. On December 31, 1900, 1,994,974 miles operated in 1901 were carried 500,000,790 passengers and 1,684,406,481 tons of freight. Receipts from passengers were $330,710,686; from freight, $1,126,267,652; from miscellaneous sources, $125,478,488. The surplus earned during the year after paying interest and dividends was $111,308,104.

Foreign Relations.—The ratifications of the Hay-Pauncefote treaty, signed at Washington Nov. 18, 1901, were exchanged on Feb. 21. On Jan. 19, 1902, the Washington Secretary Hay and the Colombian Chargé d’Affaires, Tomas Herban, relative to the completion of the Panama ship-canal by the United States, and the purchase of the same, were signed at Washington. The United States, retaining its rights in the canal, will pay to Colombia for the purchase of its interest in the canal $100,000,000. The canal, from the mouth of the Panama River to the Atlantic Ocean, will be 50 miles long and 250 feet wide, and it is estimated that the cost of construction will be $300,000,000. The United States, in the construction of the canal, will have the exclusive right for the term of one hundred years, renewable at the option of the United States for periods of similar duration to construct, operate, and protect the maritime canal, with or without locks, such canal to be of sufficient depth and capacity for vessels of the largest tonnage and greatest draft now engaged in commerce, and such as may be reasonably anticipated, and also the same rights for the construction, operation, and protection of the Panama Railroad and of railway telegraph and telephone lines, canals, dikes, dams, and reservoirs and such other auxiliary works as may be necessary. To enable the United States to exercise the rights and privileges granted by this treaty the Republic of Colombia grants the use and control, for the term of one hundred years, for the use and benefit of the United States, of a zone of territory along the route of the canal 15 kilometers in width on either side thereof, measured from its center line, including therein the necessary auxiliary canals, not exceeding in any case 15 miles from the main canal, and other works, together with 10 fathoms of water in the Bay of Limon in extension of the canal, and at least 3 marine miles from mean low-water mark from each terminus of the canal. This grant shall not include the cities of Panama and Colon, except so far as lands and other property therein are now owned by or in possession of the canal or railroad company, the number of soldiers on the territory, and the United States shall continue to guarantee their neutrality and the sovereignty of Colombia. In furtherance of this provision there shall be created a joint commission by the governments of Colombia and the United States that shall establish and enforce sanitary and police regulations. The rights and privileges granted to the United States shall not affect the sovereignty of the Republic of Colombia over the territory within whose boundaries such rights and privileges are to be exercised. The United States freely acknowledges and recognizes the sovereignty and disavows any intention to impair it in any way whatever or to increase its territory at the expense of Colombia or of any of the sister republics in Central or South America, but bas engaged that it will take such measures at home and abroad as may be necessary to strengthen the power of the republics on this continent and to promote, develop, and maintain their prosperity and independence. The Republic of Colombia authorizes the United States to construct and maintain at each entrance and terminus of the proposed canal a port for vessels, with suitable lighthouses and other aids to navigation, and the United States is authorized to use and occupy within the limits of the zone fixed by this convention such parts of the coast-line and islands adjacent as are necessary for this purpose, including the construction and maintenance of breakwaters, coaling stations, docks, and other appropriate works. The United States will give attention to works of drainage along the line of the canal in order to prevent the invasion of epidemics, will organize hospitals, and will supply the towns of Panama and Colon with the necessary aqueducts and drainage-works in order to prevent the spread of contagious disease on the part of the inhabitants. The United States, in the exercise of their powers within the zone of canal territory, shall have the exclusive right to construct, operate, and protect such works and installations as may be necessary for the construction, operation, protection, and extension of the canal and auxiliary works, and for the transportation of military, naval, or other vessels. The United States shall have the exclusive right to construct, operate, and protect such works and installations within the zone of territory. The United States shall have the exclusive right to regulate and control the use of all watercourses or in other ways arising out of the construction or operation of the canal, shall in each case be appraised and settled by a joint commission. The ports leading to the canal, in-
including Panama and Colon, shall be free to the commerce of the world, and no duties or taxes shall be imposed except upon merchandise destined to be introduced for the consumption of the rest of the Republic of Colombia, or upon vessels touching at the ports of Colon and Panama and which do not cross the canal. No similar taxes shall not be imposed on the canal, the vessels that may use it, or property and effects appertaining to the canal or railroad nor contributions of a personal character upon individuals in the service of the canal. The United States shall have authority to protect and make secure the canal, as well as railways and other auxiliary works and dependencies, and to preserve good order and discipline among the laborers and other persons who may congregate in that region, and to make and enforce such police and sanitary regulations as may be necessary to preserve order and public health and to protect navigation and commerce from interruption or damage. The Republic of Colombia may establish judicial tribunals within said zone, which shall have exclusive jurisdiction of all controversies between citizens of the Republic of Colombia or between citizens of any foreign nation other than the United States.

Subject to the general sovereignty of Colombia of the said zone, the United States may establish judicial tribunals thereon, which shall have jurisdiction of all controversies between citizens of the United States and citizens of any foreign nation other than the Republic of Colombia; and of all controversies growing out of or relating to the construction, maintenance, or operation of the canal, railways, and other properties and works. The United States and Colombia engage jointly to establish judicial tribunals, which shall have jurisdiction of all controversies between citizens of the United States and citizens of Colombia, and between citizens of nations other than Colombia or the United States; and also of all crimes, felonies, and misdemeanors committed within said zone, and of all questions of admiralty arising therein.

The two governments shall agree upon the laws and procedure which shall govern this tribunal, and it shall make provision for the capture, detention, and delivery within said zone of persons charged with the commission of crimes, felonies, or misdemeanors within said zone, and without said zone, the works of the canal, the railways, and their auxiliaries are declared of public utility, and in consequence all areas of land and water necessary for the construction, maintenance, and operation of the canal and the other specified works may be expropriated in conformity with the laws of Colombia. The indemnities awarded by a joint commission for such expropriation shall be borne by the United States, but the appraisal of said land and the assessment of damages shall be based upon their value before the commencement of the work upon the canal.

The canal, when constructed, and the entrance thereto shall be neutral in perpetuity. The Government of Colombia shall have the right to transport over the canal its vessels, troops, and munitions of war at all times, without paying charges of any kind. This exemption is to be extended to the auxiliary railroads for the transport of personnel of the Army of the Republic of Colombia or of the Department of Panama, or of the police force charged with the preservation of public order outside of said zone. The United States shall have full authority to establish and enforce regulations for the use of the canal, the railways, and the entering ports and auxiliary works, and to fix rates of tolls and charges.
The joint commission referred to shall be established as follows: The President of the United States shall nominate two persons and the Emperor of Russia two persons to constitute the commission, and they shall proceed to a decision; but in case of disagreement of the commission an umpire shall be appointed by the two governments, who shall render the decision. All decisions by a majority of the commission or by the umpire shall be final.

A dispute with Russia regarding the seizure of 4 American sealing vessels by a Russian war vessel in Bering Sea was referred before the constitution of The Hague Court of Arbitration to Dr. Asser, the Dutch jurist, but the award was given under the sanction of The Hague Tribunal. The vessels were chased and seized by the Russian cruiser, and the American seamen were compelled to work. The seizures were made without warning, and were not afterward confirmed by any court of maritime jurisdiction. The Russian Government acknowledged that in two cases its naval authorities were at fault, and the arbitrator awarded $38,750 and $1,486 respectively, with interest at 6 per cent. from September, 1892. In the other cases, in which $101,330 and $150,720 were claimed, the Russian Government contended that the perpendicular vessels and the imprisonment of Capt. Lewis and White were legal, as they were guilty of illegal sealing in Russian territorial waters. The American delegate, Mr. Herbert, President of the Russian Government claims rights in Bering Sea and adjacent waters and will admit jurisdiction only over territorial waters, extending a marine league from the territorial line, and this line shall be fixed by treaty, and in such case the treaty binds only the parties to the agreement. Mr. Komaroff, the Russian delegate, claimed for Russia by custom a wider extent of territorial waters and also the right to chase and capture beyond territorial waters vessels guilty of unlawful fishing within the territorial waters. The arbitrator upheld the position taken by the United States that the right of seizure extends only to the limit of territorial waters, one marine league from shore, and condemned Russia to pay respectively $38,686 with interest from 1893, and $110 with interest from 1893. The indirect claims for the prospective catch of the illegally detained vessels was disallowed.

The United States Government failed to reach a modus vivendi with Great Britain with regard to pelagic sealing before the season of 1902. It was proposed in Congress to kill off the seal herd on Pribilof Islands. On Jan. 24, 1903, a convention was signed by Secretary Hay and the British ambassador, Sir Michael Herbert, for the reference of the Alaska boundary dispute to a tribunal of 6 impartial jurists, 3 to be selected by the United States and 3 by Great Britain, all questions at issue, including the final award, to be decided by a majority vote of the tribunal. The tribunal shall consider in the settlement of the matter the Anglo-Russian boundary treaty of Feb. 28, 1825, and the treaty of March 30, 1867, between the United States and Russia, by which Russia ceded Alaska to the United States.

In interpreting the treaty of 1825 the tribunal shall decide what is intended as the point of commencement of the boundary-line, what channel is to be followed in the settlement of the points in this channel, and what course the boundary-line is to follow between points. The tribunal will decide whether—in extending the line of demarcation northward from this point, following the crest of the mountains parallel with the coast two persons, and they shall proceed to a decision; but in case of disagreement of the commission an umpire shall be appointed by the two governments, who shall render the decision. All decisions by a majority of the commission or by the umpire shall be final.

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one an English, the other a Russian jurisconsult; Mexico chose Senator Guarnaschelli, an Italian, and M. de Savornin Lohman, a Dutch member of the court. Judge Guarnaschelli being unable to accept, M. Assenn was appointed by the Mexican Government. The 4 members met at The Hague on Sept. 1 and chose Dr. Matzen, a Danish jurist, as umpire. The Pious fund originated in 1867, and consisted of money collected in Mexico to enable the Jesuits to carry on their missionary labors in the two Californias. After the expulsion of the Jesuits from Spanish dominions in 1767, the property of the fund was confiscated by the Government, but it was provided that it should remain subject to the charges imposed by the original donors. The Dominicans took over the fund in possession of the Mexican Treasure, when an undertaking was given that 6 per cent. interest would be paid in perpetuity on the full value. This pledge was kept likewise. The French Government made 21 missions, which occupied the sites of the principal cities of California. About twenty years after the cession of Upper California to the United States a treaty was concluded between the United States and Mexico, by which settlement of claims of Mexican citizens against the United States and of United States citizens against Mexico. Each Government appointed an arbitrator, and the arbitrators chose Sir Edward Thornton, British minister at Washington, to be umpire. The arbitrators having disagreed in the matter of the Pious fund, the umpire decided that it amounted to $1,435,032, and that half belonged to the clergy of the United States, and the other half to Mexico. Accordingly the decision was that Mexico should pay interest at 6 per cent. on half the total sum for twenty-one years, amounting to $804,070 up to Feb. 2, 1869, the date at which the umpire's decision was given. The decision was paid in installments from 1877 to 1890, but the interest that has accrued since 1890 has not been paid, although the claim of the Californian bishops has been paid. Sir Edward Thornton, the umpire, in his report, said that the decision of the court was res adjudicata; second, if not governed by that principle, whether it was just; third, if the decision went against Mexico, in what currency should it be paid. The court held that the principle of res adjudicata, which was acknowledged to be applicable in international law, as it is in the civil law of most European countries, did not apply in this case because Sir Edward Thornton had no jurisdiction to make his award; and, in case it was found that he had, because his award did not cover the present claim. The Tribunal declared that Sir Edward Thornton's decision to make his award, and that, as the principles and evidence on which it was based were identical with those governing the present claim, the matter was res adjudicata. The full amount of the claim, which is $1,420,689, was awarded to the United States for the benefit of the bishops of California, the claimants in behalf of the Church. The court decided that this could be paid in Mexican currency. The Mexican Government was, moreover, directed to pay in perpetuity the annual sum of $43,051. The court was opened on May 1, 1891, and the final award was made. In the dispute with Germany regarding Samoa the decision of King Oscar of Sweden was against the United States. (See SAMOA.)

Sir Robert Bond, Premier of Newfoundland, arranged a reciprocity convention with Secretary Hay in September, 1902. He negotiated a convention with Secretary Blaine in 1900, but the British Government rejected the Blaine-Hay convention in order that Canada might have an opportunity to effect a similar arrangement. If Canada failed to secure this within a reasonable time, the British Government received an assurance that the Imperial Government would not withhold its consent longer to an arrangement it might make for the advantage of Newfoundland. The principle of the Bond-Blaine convention was free salt for free fish. It provided for the admission of Newfoundland dried codfish into the United States free of customs duties. The American vessels engaged in the deep-sea fisheries for cod, haddock, halibut, etc., on the Grand Banks and adjacent waters may freely buy and sell fish, with liberty of herring, capelin, and light in the Newfoundland inshore fisheries. At present American fishermen obtain salt in Newfoundland under a modus vivendi arranged in 1888 by paying an annual license fee of $50 per vessel, or $120 to $200 a year. In 1901 in Newfoundland waters 76 American vessels bailed and supplied Newfoundland salt to probably as many more at Gloucester. During the winter herring can be obtained nowhere else. The Canadians, who cannot be restricted in any way from fishing in Newfoundland, being British subjects, desire the same reciprocity with the United States for fishery products that the Newfoundlanders do. The supply of salt, however, in Canadian waters is so limited or inaccessible that at least two-thirds of the Dominion fishermen obtain theirs in Newfoundland. Reciprocity for the codfish trade, if the New England fishermen would find it as difficult to fish on the banks as the French do, who as foreigners can only get bait by smuggling. The French by the Treaty of Utrecht, made in 1713, have the right to trawl in the territorial waters of the west and northeast coasts of Newfoundland. Americans by the treaty of 1818 have the right to fish on the west shore and also are entitled to frequent the southwest coast. All these shores are remote and the inshore fishery rights are valueless for the bank fishery. The New England fishermen on the Newfoundland banks is in value about $4,000,000 a year, only 10 per cent. of the total fisheries of the United States and not more than half the product of the province of Nova Scotia, those of the maritime provinces who wish to obtain free entry for their fish into the United States to compete with the New England fishermen. The Newfoundlanders threaten no serious competition. They depend on their inshore fisheries, and what cod they cure after their fashion by drying it after it is pickled in the wind and sun. Of this peculiar product 35,000 quintals is exported to the United States, valued at $150,000 paying a duty of 3 cent a pound. The Newfoundlanders would like to have the duty on their salt cod removed in the United States and Porto Rico, and on salt herring, of which American vessels took away 200,000 barrels in the winter of 1901, and on other fishery products. The Bond-Hay convention goes much further to meet their wishes than the Bond-Blaine convention. It offers to admit free of duty all fishery products, except fresh fish, and also crude minerals. If it is made on Oct. 15, the Newfoundlanders can market in the Atlantic cities not only dry fish, but green fish, in which state, simply packed in the holds of the schooners with salt.
between, cod is preserved by the New England fishermen, as well as by the fishermen of New Brunswick and Nova Scotia, and is liked best by the American consumers. For these new concessions Newfoundland agrees to admit certain American codfish, and other articles at the same fixed rates of duty that are imposed on Canadian products of the same kind, and if the duties are made lower for Canada or any other country the United States will, while the convention remains in force also will have the benefit of the reduction.

An American, Capt. A. A. Rosehill, laid claim to Marcus Island, whence a Japanese colony ships guano, dried fish, stuffed birds, and feathers. His claim to the island being disputed, he fitted out an expedition at Honolulu for the purpose of taking forcible possession of the guano deposits there. The Japanese minister notified the Government at Washington that Japan claims the island as one of the Bonin group, in which it was officially included in 1898. Japan sent a cruiser to a diplomatic official to defend his claim, and this official bore a message from Washington to Capt. Rosehill, warning him to offer no forcible opposition. The American claimant landed on the island in 1898, and finding it unoccupied, raised the American flag, and put up a monument where he deposited a record of his claim to the island. In 1901 he sold a bond at Washington such as is required to perfect a legal claim to a guano island under American protection. Meanwhile Japanese had come, and finding the island unoccupied had shipped away guano, and in 1898 formed a permanent settlement of about 200 people. Capt. Rosehill arrived on July 30, but sailed away again on receiving the message from the Japanese officer. The Japanese have long known the island, and since 1879 their fishermen have visited it. The American discoverer filed a claim at Washington against the Japanese Government for possession of the island and indemnification for the guano taken away.

The principal items of increased expenditure were as follow: Rebate of tax on tobacco, $3,000,000; refunding of excess of customs deposits, $2,500,000; for deficiency in postal revenues, $4,900,000 for the twelfth census, $1,800,000 for public buildings, $4,900,000 for improving rivers and harbors, $10,500,000 for the quartermaster’s department, and $6,300,000 for the subsistence department of the army. There was a decrease in the annual interest on the public debt of $3,234,934.

The detailed receipts and expenditures for 1902, compared with those for 1901, are as follows:

<table>
<thead>
<tr>
<th>OBJECTS</th>
<th>1902</th>
<th>1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative</td>
<td>$11,809,301.97</td>
<td>$11,211,514.80</td>
</tr>
<tr>
<td>Executive</td>
<td>$21,358.26</td>
<td>$21,358.26</td>
</tr>
<tr>
<td>Department of State</td>
<td>$186,457.44</td>
<td>$190,013.39</td>
</tr>
<tr>
<td>Foreign intercourse</td>
<td>$2,705,734.01</td>
<td>$2,757,900.36</td>
</tr>
<tr>
<td>Treaty obligations between United States and Spain in 1860:</td>
<td></td>
<td>100,000.00</td>
</tr>
<tr>
<td>Treasury Department</td>
<td>$8,588,289.84</td>
<td>$8,950,911.92</td>
</tr>
<tr>
<td>Independent Treasury</td>
<td>$283,544.86</td>
<td>$309,810.52</td>
</tr>
<tr>
<td>Mint and assay offices</td>
<td>$1,633,556.05</td>
<td>$1,905,475.17</td>
</tr>
<tr>
<td>Territorial governments</td>
<td>$355,784.86</td>
<td>$388,341.84</td>
</tr>
<tr>
<td>Salaries, etc., internal revenue</td>
<td>$4,949,497.55</td>
<td>$4,979,479.95</td>
</tr>
<tr>
<td>Miscellaneous internal revenue</td>
<td>$1,968,659.97</td>
<td>$1,711,807.07</td>
</tr>
<tr>
<td>Rebate of tax on tobacco, $3,000,000</td>
<td></td>
<td>1,958,191.89</td>
</tr>
<tr>
<td>Collecting customs revenue</td>
<td>$7,657,478.90</td>
<td>$7,718,418.88</td>
</tr>
<tr>
<td>Refunding excess of deposits, customs</td>
<td>$5,443,209.58</td>
<td>$7,718,007.34</td>
</tr>
<tr>
<td>Debentures or drawbacks, etc.</td>
<td>$5,395,187.44</td>
<td>$5,857,906.91</td>
</tr>
<tr>
<td>Miscellaneous items, customs</td>
<td>$243,728.01</td>
<td>$208,171.22</td>
</tr>
<tr>
<td>Revenue Cutter Service</td>
<td>$1,808,297.18</td>
<td>$1,824,550.61</td>
</tr>
<tr>
<td>Regulating immigration</td>
<td>$289,999.89</td>
<td>$328,180.37</td>
</tr>
<tr>
<td>Chinese exclusion acts</td>
<td>$209,744.03</td>
<td>$158,098.84</td>
</tr>
<tr>
<td>New revenue vessels</td>
<td>$113,616.38</td>
<td>$159,521.31</td>
</tr>
<tr>
<td>Alien contract labor services</td>
<td>$2,024,561.31</td>
<td>$2,170,698.27</td>
</tr>
<tr>
<td>Marine Hospital Service</td>
<td>$1,384,264.51</td>
<td>$1,940,193.77</td>
</tr>
</tbody>
</table>

The premium paid on bonds purchased for the sinking-fund amounted to $14,339,000.
### UNITED STATES OF AMERICA (Finance)

#### EXPENDITURES (continued.)

<table>
<thead>
<tr>
<th>OBJECTS</th>
<th>YEAR ENDING JUNE 30, 1902.</th>
<th>YEAR ENDING JUNE 30, 1901.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury Department (contd.)</td>
<td>$1,687,686.46</td>
<td>$1,600,870.17</td>
</tr>
<tr>
<td>Life-Saving Service</td>
<td>4,151,409.32</td>
<td>3,950,866.53</td>
</tr>
<tr>
<td>Land Office</td>
<td>886,693.07</td>
<td>751,335.04</td>
</tr>
<tr>
<td>Coast and Geodetic Survey</td>
<td>844,490.06</td>
<td>854,926.90</td>
</tr>
<tr>
<td>Steamboat Inspection Service</td>
<td>8,558,235.45</td>
<td>8,120,866.75</td>
</tr>
<tr>
<td>Engraving and printing</td>
<td>4,916,247.74</td>
<td>5,700,856.38</td>
</tr>
<tr>
<td>Public buildings</td>
<td>481,787.99</td>
<td>487,011.74</td>
</tr>
<tr>
<td>Canals and harbors</td>
<td>1,060,089.18</td>
<td>1,058,504.14</td>
</tr>
<tr>
<td>Furniture for public buildings</td>
<td>257,390.74</td>
<td>257,100.56</td>
</tr>
<tr>
<td>Heating apparatus, public buildings</td>
<td>164,870.68</td>
<td>178,821.86</td>
</tr>
<tr>
<td>Venison Department</td>
<td>54,350.50</td>
<td>55,543.78</td>
</tr>
<tr>
<td>Buildings</td>
<td>51,438.72</td>
<td>48,500.83</td>
</tr>
<tr>
<td>Salaries and expenses, Fish Commission</td>
<td>499,459.85</td>
<td>497,395.85</td>
</tr>
<tr>
<td>National Museum</td>
<td>971,899.94</td>
<td>942,056.45</td>
</tr>
<tr>
<td>Zoological Park</td>
<td>95,676.19</td>
<td>73,333.83</td>
</tr>
<tr>
<td>Smithsonian Institution</td>
<td>140,009.18</td>
<td>141,171.96</td>
</tr>
<tr>
<td>Interstate Commerce Commission</td>
<td>870,009.50</td>
<td>872,544.58</td>
</tr>
<tr>
<td>French spoliation claims</td>
<td>138,027.73</td>
<td>285,328.08</td>
</tr>
<tr>
<td>Claims under Bowman and Tucker acts</td>
<td>407,850.31</td>
<td>414,286.97</td>
</tr>
<tr>
<td>Epidemic diseases</td>
<td>141,814.55</td>
<td>176,285.40</td>
</tr>
<tr>
<td>Bureau of Exposition, Nicaragua frontier</td>
<td>83,750.90</td>
<td>84,563.28</td>
</tr>
<tr>
<td>Lighthouse Board, interest expenditures, St. Louis</td>
<td>45,870.50</td>
<td>17,351.06</td>
</tr>
<tr>
<td>Refunding customs revenue collected from Porto Rico</td>
<td>920,983.10</td>
<td>922,011.90</td>
</tr>
<tr>
<td>Pensions</td>
<td>753,208.46</td>
<td>950,407.38</td>
</tr>
<tr>
<td>For credit Central Pacific Railroad indebtedness</td>
<td>1,400,000.00</td>
<td>1,400,000.00</td>
</tr>
<tr>
<td>Credits in settlement of indebtedness of Sioux City and Pacific Railways Company</td>
<td>290,925.85</td>
<td>290,925.85</td>
</tr>
<tr>
<td>Miscellaneous items</td>
<td>290,925.85</td>
<td>290,925.85</td>
</tr>
<tr>
<td>Total</td>
<td>11,872,716.06</td>
<td>11,846,057.20</td>
</tr>
</tbody>
</table>

#### MILITARY

<table>
<thead>
<tr>
<th>OBJECTS</th>
<th>1902.</th>
<th>1901.</th>
</tr>
</thead>
<tbody>
<tr>
<td>National defense</td>
<td>$2,684,799.70</td>
<td>$2,688,770.54</td>
</tr>
<tr>
<td>Emergency funds</td>
<td>33,600.00</td>
<td>29,500.00</td>
</tr>
<tr>
<td>Refunding customs revenue collected from Porto Rico</td>
<td>827,909.54</td>
<td>827,909.54</td>
</tr>
<tr>
<td>Pay Department</td>
<td>86,913,849.37</td>
<td>83,442,937.37</td>
</tr>
<tr>
<td>Excess pay, war with Spain</td>
<td>398,593.80</td>
<td>398,593.80</td>
</tr>
<tr>
<td>Subsistence Department</td>
<td>6,430,977.37</td>
<td>18,704,977.37</td>
</tr>
<tr>
<td>Quartermaster's Department</td>
<td>1,659,290.12</td>
<td>458,282,948.10</td>
</tr>
<tr>
<td>Medical Department</td>
<td>630,920.41</td>
<td>5,533,195.34</td>
</tr>
<tr>
<td>Ordnance Department</td>
<td>11,170,787.95</td>
<td>11,631,915.70</td>
</tr>
<tr>
<td>Engineer Department</td>
<td>735,085.73</td>
<td>841,648.73</td>
</tr>
<tr>
<td>Signal service</td>
<td>450,097.00</td>
<td>446,097.00</td>
</tr>
<tr>
<td>Military telegraph</td>
<td>108,491.47</td>
<td>128,020.00</td>
</tr>
<tr>
<td>Military post</td>
<td>1,059,240.45</td>
<td>645,097.17</td>
</tr>
<tr>
<td>National homes for disabled soldiers</td>
<td>3,285,454.40</td>
<td>3,276,708.95</td>
</tr>
<tr>
<td>State homes for disabled soldiers</td>
<td>1,064,734.90</td>
<td>1,152,859.50</td>
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<tr>
<td>Support of Soldiers' Home</td>
<td>538,046.00</td>
<td>540,010.71</td>
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<tr>
<td>Soldiers' Home permanent fund</td>
<td>280,000.00</td>
<td>280,000.00</td>
</tr>
<tr>
<td>Reinforcing States and Territories, expenses of raising troops, Spanish War</td>
<td>589,031.34</td>
<td>564,167.97</td>
</tr>
<tr>
<td>Refunding to States expenses incurred in raising volunteers</td>
<td>1,056,200.42</td>
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<tr>
<td>Miscellaneous items</td>
<td>946,700.91</td>
<td>919,700.91</td>
</tr>
<tr>
<td>Total military</td>
<td>$11,872,716.06</td>
<td>$114,615,057.20</td>
</tr>
</tbody>
</table>

#### NAVAL

<table>
<thead>
<tr>
<th>OBJECTS</th>
<th>1902.</th>
<th>1901.</th>
</tr>
</thead>
<tbody>
<tr>
<td>National defense</td>
<td>$2,684,799.70</td>
<td>$2,688,770.54</td>
</tr>
<tr>
<td>Emergency fund</td>
<td>33,600.00</td>
<td>29,500.00</td>
</tr>
<tr>
<td>Increase of the navy</td>
<td>18,782,144.89</td>
<td>18,720,178.83</td>
</tr>
<tr>
<td>Bureau of Yards and Docks</td>
<td>5,701,796.29</td>
<td>3,594,178.96</td>
</tr>
<tr>
<td>Bureau of Equipment</td>
<td>5,144,884.38</td>
<td>4,000,622.17</td>
</tr>
<tr>
<td>Bureau of Navigation</td>
<td>885,242.94</td>
<td>848,601.51</td>
</tr>
<tr>
<td>Bureau of Construction and Repair</td>
<td>6,969,892.98</td>
<td>7,210,405.49</td>
</tr>
<tr>
<td>Bureau of Ordnance</td>
<td>2,546,000.00</td>
<td>2,005,337.27</td>
</tr>
<tr>
<td>Bureau of Steam Engineering</td>
<td>3,653,821.87</td>
<td>3,548,602.08</td>
</tr>
<tr>
<td>Bureau of Supplies and Accounts</td>
<td>3,907,193.39</td>
<td>3,873,119.41</td>
</tr>
<tr>
<td>Bureau of Medicine and Surgery</td>
<td>415,970.92</td>
<td>408,953.95</td>
</tr>
<tr>
<td>Navy Yard</td>
<td>2,719,681.05</td>
<td>2,310,064.18</td>
</tr>
<tr>
<td>Naval Academy</td>
<td>1,037,009.05</td>
<td>1,047,346.37</td>
</tr>
<tr>
<td>Pay of the navy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General advance of accounts</td>
<td>1,056,898.00</td>
<td></td>
</tr>
<tr>
<td>Judgments, bounty for destruction of enemy vessels</td>
<td>814,834.97</td>
<td>541,292.14</td>
</tr>
<tr>
<td>Miscellaneous items</td>
<td>440,935.30</td>
<td>515,241.14</td>
</tr>
<tr>
<td>Total naval</td>
<td>$11,872,716.06</td>
<td>$114,615,057.20</td>
</tr>
</tbody>
</table>

The gross gold in the Treasury at the close of the calendar year was $616,750,218, which is the largest amount of gold ever held by the Treasury.

This colossal holding never has been approached by any nation except Russia, which accumulated $598,000,000 a few years since during the effort to establish the gold standard in that empire.

The cash balance at the close of the calendar year, 1902,
available for ordinary expenditure, was $211,681,177, of which $150,556,000 was held in United States national bank depositories, and the remaining $61,000,000 was in the Treasury vaults. A great growth in the use of depositary banks has taken place during the past five years. The number of such banks increased from 186 in 1897 to 700 at the close of 1902, and in that time their holdings of public funds increased from about $15,000,000 to $150,000,000.

The following tables show the assets and liabilities of the Treasury for the years ended Dec. 31, 1901 and 1902:

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>YEAR ENDING DEC. 31</th>
<th>1902</th>
<th>1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold coin and bullion</td>
<td>$615,760,218</td>
<td>$240,707,028</td>
<td></td>
</tr>
<tr>
<td>Silver dollars or bullion</td>
<td>494,364,961</td>
<td>408,719,014</td>
<td></td>
</tr>
<tr>
<td>United States notes</td>
<td>1,728,266</td>
<td>1,514,936</td>
<td></td>
</tr>
<tr>
<td>Treasury notes (1900)</td>
<td>74,366</td>
<td>18,603</td>
<td></td>
</tr>
<tr>
<td>National-bank notes</td>
<td>15,560,940</td>
<td>10,480,450</td>
<td></td>
</tr>
<tr>
<td>Balances in national-bank depositories</td>
<td>150,056,064</td>
<td>118,808,334</td>
<td></td>
</tr>
<tr>
<td>Gold certificates</td>
<td>27,634,640</td>
<td>8,700,080</td>
<td></td>
</tr>
<tr>
<td>Silver certificates</td>
<td>4,046,946</td>
<td>5,004,108</td>
<td></td>
</tr>
<tr>
<td>Bonds and interest checks paid</td>
<td>15,055,682</td>
<td>173,118</td>
<td></td>
</tr>
<tr>
<td>Minor-cash and fractional notes</td>
<td>600,592</td>
<td>362,804</td>
<td></td>
</tr>
<tr>
<td>Subsidiary silver coins</td>
<td>5,105,000</td>
<td>5,014,000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$1,329,668,731</td>
<td>$1,219,661,721</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIABILITIES</th>
<th>YEAR ENDING DEC. 31</th>
<th>1902</th>
<th>1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold certificates</td>
<td>$386,549,569</td>
<td>$138,786,080</td>
<td></td>
</tr>
<tr>
<td>Silver certificates</td>
<td>400,977,869</td>
<td>360,412,027</td>
<td></td>
</tr>
<tr>
<td>Treasury notes (1900)</td>
<td>24,003,000</td>
<td>28,000,000</td>
<td></td>
</tr>
<tr>
<td>Redemption national-bank notes</td>
<td>14,790,887</td>
<td>14,368,521</td>
<td></td>
</tr>
<tr>
<td>Disbursing officers' balances</td>
<td>56,235,906</td>
<td>59,561,040</td>
<td></td>
</tr>
<tr>
<td>Outstanding checks and drafts</td>
<td>8,068,148</td>
<td>4,490,170</td>
<td></td>
</tr>
<tr>
<td>Post Office Department account</td>
<td>8,239,845</td>
<td>7,658,305</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous items</td>
<td>2,789,941</td>
<td>3,110,010</td>
<td></td>
</tr>
<tr>
<td>Reserve fund</td>
<td>150,000,000</td>
<td>150,000,000</td>
<td></td>
</tr>
<tr>
<td>Available cash balance</td>
<td>211,681,177</td>
<td>171,608,278</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$1,329,668,731</td>
<td>$1,219,661,721</td>
<td></td>
</tr>
</tbody>
</table>

The changes in the public debt are shown in the following table:

<table>
<thead>
<tr>
<th>OBLIGATIONS</th>
<th>OUTSTANDING DEC. 31</th>
<th>1902</th>
<th>1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consols of 1900</td>
<td>$435,514,756</td>
<td>$445,940,750</td>
<td></td>
</tr>
<tr>
<td>Loss of 1898-99</td>
<td>29.1,029,016</td>
<td>29,000,000</td>
<td></td>
</tr>
<tr>
<td>Fractional notes</td>
<td>53,647</td>
<td>55,497</td>
<td></td>
</tr>
<tr>
<td>National-bank redemption account</td>
<td>42,169,652</td>
<td>58,008,206</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$454,883,041</td>
<td>$498,550,547</td>
<td></td>
</tr>
</tbody>
</table>

The following tables show the amount of money in circulation Jan. 1, 1903, compared with the same date in 1902:

<table>
<thead>
<tr>
<th>CHARACTER OF MONEY</th>
<th>AMOUNT IN CIRCULATION JAN. 1</th>
<th>1903</th>
<th>1902</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold coin (including bullion in Treasury)</td>
<td>$249,629,652</td>
<td>$249,629,652</td>
<td></td>
</tr>
<tr>
<td>Gold certificates</td>
<td>77,310,014</td>
<td>77,310,014</td>
<td></td>
</tr>
<tr>
<td>Standard silver dollars</td>
<td>401,289,603</td>
<td>401,289,603</td>
<td></td>
</tr>
<tr>
<td>Subsidiary silver</td>
<td>91,320,000</td>
<td>91,320,000</td>
<td></td>
</tr>
<tr>
<td>Treasury notes of 1900</td>
<td>23,699,489</td>
<td>23,699,489</td>
<td></td>
</tr>
<tr>
<td>United States notes</td>
<td>343,779,828</td>
<td>343,779,828</td>
<td></td>
</tr>
<tr>
<td>National-bank notes</td>
<td>389,678,531</td>
<td>389,678,531</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$3,384,700,000</td>
<td>$3,284,620,000</td>
<td></td>
</tr>
</tbody>
</table>

Jan. 1, 1903, the circulation per capita was $29.43, against $28.69 for Jan. 1, 1902.

The Supreme Court.—Olive Wendell Holmes, of Massachusetts, was appointed Associate Justice in place of Horace Gray, deceased, and took his seat on the bench Dec. 8, 1902.

The number of cases docketed and pending at the beginning of the October term, 1901, was 732, of which 377 were disposed of during the term. The number actually considered by the court was 375, of which 108 were argued orally and 128 were submitted on printed arguments. Among the cases of general interest decided were the following:

**Controvercy between States.—** The court, in an opinion delivered by Chief Justice Fuller, April 7, 1902, overruled the demurrer of the State of Colorado in the case of Kansas vs. Colorado. The case involved the right of Colorado to appropriate for purposes of irrigation the waters of Arkansas river, which Kansas sought by an original action to restrain on the ground that the stream flows through Kansas and the people of the latter State are injured by Colorado's appropriation of the water. Colorado contested the jurisdiction of the court in the case and filed a demurrer. The court held that the case is one in which it can properly assume jurisdiction, and the next proceeding will be for Colorado to answer the bill of complaint.

**Insolvent National Banks.—** The case of Studebaker vs. Perry, receiver of the National Bank of Kansas City, involved the question whether the Comptroller of the Currency acting under the national banking laws, can validly make more than one assessment upon the shareholders of an
insolvent national banking association. The court held that several assessments could be legitimately made if necessary.

Statutory Construction.—Rodgers vs. United States, decided April 7, 1902. This was a suit brought by Admiral Rodgers of the navy to recover money claimed to be due under the law known as the naval personnel act, approved March 3, 1899. The Court of Claims decided the case in favor of the United States, and the Supreme Court affirmed that decision. Section 7 of the act referred to abolished the rank of commodore, at least as far as respects the active list of the line of the navy, and lifted those in that rank to that of rear-admiral. It is a canon of statutory construction that a later statute, general in its terms and not expressly repealing a prior special statute, will ordinarily not affect the special provision of such earlier statute.

Patent Cases.—In the case of Excelsior Wooden Pipe Company vs. Pacific Bridge Company, decided May 5, 1902, the question of jurisdiction was involved, and interesting dictums were pronounced. If a suit is brought to enforce or set aside a contract, though such contract be concluded out of the State, the suit is under the patent laws, and jurisdiction of the Circuit Court can only be maintained upon the ground of diversity of citizenship. It is sometimes difficult to determine whether the action be upon the patent or upon a contract.

The case of the Carnegie Steel Company vs. Cambria Iron Company was for recovery of damages for infringement of a patent for a "method of mixing molten pig metal." The decision was in favor of the Carnegie Company, but a dissenting opinion was delivered by Mr. Justice White, in which the Chief Justice, Mr. Justice Harlan, and Mr. Justice Brewer united. Their judgment was that the decision of the court tended "to put the patentee in a position where, without invention on his part, and without the possession by him of lawful letters patent, he is allowed to exact tribute from the steel and iron making industry, whenever those engaged in such industry desire to increase their plants or to more conveniently and satisfactorily conduct their operations, so as to keep pace with the natural evolution of modern industrial development."

Extradition Treaty with Prussia.—The case of Terlinden vs. Ames was an extradition proceeding involving the status of the Kingdom of Prussia since its incorporation into the Empire of Germany. Terlinden, a citizen of Prussia, was apprehended in Chicago, where the German authorities made application under our treaty with Prussia of 1855 for extradition for an offense committed in Prussia. The proceeding was resisted on the ground that the absorption of Prussia had had the effect of nullifying the treaty. Application was made for a writ of habeas corpus, which was denied by the lower courts. The Supreme Court sustained the lower courts in their action. Treaties may be terminated by the absorption of powers into other nationalities and the loss of separate existence; but as the German Government had recognized this treaty, and the Executive Department of our Government had acted in the same direction, it was held not to be within the province of our courts to interfere.

Treaty with Russia.—Tucker vs. Alexandroff, decided Jan. 6, 1902. This case presented an important international question. Alexandroff, a subject of the Tsarist government, came to this country from Russia as a member of the crew of the Vairag, a Russian cruiser under construction at Philadelphia. He deserted, announcing his allegiance to the Emperor, and declared his intention of becoming a citizen of the United States. He was arrested, charged with desertion, and committed to prison, subject to orders of the Russian vice-consul or commander of the cruiser. The United States District Court, upon a hearing on a writ of habeas corpus, ordered his discharge, and the Circuit Court of Appeals affirmed the decision. The Russian vice-consul at Philadelphia appealed the case, and the Supreme Court decided that, under the treaty with Russia, Alexandroff should be surrendered to the Russian Government. Although the Vairag was still upon the stocks when Alexandroff arrived in Philadelphia, before he deserted she had been launched, and thereby became a ship in the legal sense. Chief-Justice Fuller and Justices Harlan, White, and Gray dissented. They held that the Vairag was not, at the time Alexandroff deserted, a Russian ship of war in the sense that the authorities could take action to enforce the jurisdiction of that country over the men intended to become part of her crew.

New York Transfer Tax.—Orr vs. Gilman, decided Jan. 6, 1902. A transfer tax imposed under the laws of the State of New York, under the following circumstances: David Dows, Sr., died in 1890, leaving a will containing a power of appointment to his son, David Dows, Jr., which will was duly admitted to probate. David Dows, Jr., died in 1899, leaving a will, in which he exercised the power of appointment for his two sons. James A. L. Dows, Jr., which will was duly admitted to probate. James A. L. Dows, Jr., died in 1899, leaving a will, in which he exercised the power of appointment for his four sons. The latter will was admitted to probate in 1899. The New York State law of 1891 provided that when a person exercised a power of appointment derived from any disposition of property, such appointment, when made, shall be deemed a transfer taxable in the same manner as though the property to which such appointment related belonged absolutely to the donee of the power. It was argued that the grandchildren acquired vested rights under the will of David Dows, Sr., and that it was not competent for the State, by an enactment passed in 1897, to extend its tax or affect the property that passed to the grandchildren under the will. The court held that the subject was one of State law, and must follow the construction put upon the law by the courts of the State; and that it was not in conflict with the provisions of the federal Constitution.

Federal Lepage Tax.—In Eisman, collector, vs. Martinez, administrator, decided March 17, 1902, a test case on the application of the federal legacy tax law to estates of persons domiciled abroad, it was held that no tax is imposed upon the passing of any legacy or distributive share arising out of the personal property of a non-resident alien, who dies without the United States, leaving a will made and executed at his foreign domicile pursuant to which he gives his property to a non-resident alien legatee; or, in case of an intestate whose property, by the laws of his foreign domicile, passes to his heir, also a non-resident alien, and who leaves certain property within the United States exceeding $10,000 in value.

In Moore, collector, vs. Ruckgaber, executor, decided on the same date, it was held that the personal property of a non-resident testatrix, actually located within the United States at the time of her death, is deemed not to have a situs in the United States, and is therefore exempt from a tax. The transmission or receipt of personal property of the non-resident testatrix was held.
not subject to legacy tax under the act of June 12, 1890.

The sections of that act (now repealed) imposing a legacy tax did not apply to deceased persons domiciled abroad who left property by will executed within the United States.

Carrier's Liability.—The Kesington, decided Jan. 6, 1902. The Kesington, a steamer running between Antwerp and New York, took on board at Antwerp as passengers, etc., and Miss Bleecker, the wife and daughter of a United States naval officer. Their baggage was totally destroyed on the voyage, on account of bad storage conditions. The company issued a ticket provided that the company should not be liable for baggage beyond $250 in each case, unless an increased value was declared and an additional sum paid. It was in the United States District Court that the stipulation as to the value of the baggage was valid, and judgment was rendered against the company for $250 in favor of each passenger, which was affirmed by the Circuit Court. The Supreme Court reversed the decision, and allowed actual damages with interest. Exemptions limiting carriers' responsibility for the negligence of their servants are unjust and unreasonable, and such conditions are in conflict with public policy. One of the conditions provided that all questions arising were to be settled according to the laws of Belgium, which authorized the conditions, the contract having been made in that country; but such a contract cannot be enforced in this country in violation of the rule of public policy adopted by our courts.

Bankruptcy Law.—In the case of the Hanover National Bank v. Mowry, decided June 2, 1902, the court, in an opinion delivered by Chief Justice Fuller, decided the national bankruptcy law of 1898 to be constitutional. The court held that to be valid a bankruptcy law must be uniform throughout the United States, and further, that it is uniform "when the trustee takes in each State whatever would have been available to the creditors if the bankrupt law had not been in force in that State.

"The law is uniform, although it recognizes the local law in the matter of exemptions. The opinion said: "Congress may prescribe any regulations concerning bankruptcies in the States that are not so grossly unreasonable as to be incompatible with fundamental law; and we can find anything in this act on that subject which would justify us in overthrowing its action."

Interstate Commerce Commission Overruled.—In the case of the Interstate Commerce Commission v. the Chicago, Burlington and Quincy Railroad Company the right of the commission to reduce the terminal rate made by the railroads in Chicago on cars containing live stock was involved. The opinion affirmed the decision of the Circuit Court of Appeals, which refused to carry into effect the order of the commission reducing the rate from $2 to $1 per car. The court said: "Being constrained to the conclusion that the order of the commission was not sustained by the facts upon which it was predicated, we cannot enter into an investigation of the facts, even if it be conceded the record is in a condition to that end. In other words, many new and substantive findings of fact may be evolved upon which the order of the commission may be sustained. It follows that the decree of the Circuit Court is in accordance with the order of the commission was right and must, therefore, be affirmed."

Privacy of Telegrams.—The case of the United States v. Edward A. Mosely, decided Dec. 16, 1902, involves the right of the commission to withhold from the auditing officers of the Government copies of telegrams sent by it, as decided in Mosely's favor. The opinion was handed down by Justice McKenna.

Exclusion from the Mails.—The case of the American School of Magnetic Healing v. McGan-nulty, postmaster at Nevada, Mo., decided Nov. 17, 1902, involved the right of the Post-Office Department to refuse to deliver mail to the school, on the ground that its objects were fraudulent. The postmaster-general was declared invalid. The statute was only intended to cover cases of actual fraud in fact. Justices White and McKenna dissented.

Courts-Martial.—In an opinion rendered in the case of McLaughry v. Deming, May 19, 1902, it was held that an officer in the volunteer service cannot be tried by a court-martial composed of officers of the regular army. The invalidity of the court-martial case can be raised on a hearing on habeas corpus. The Chief Justice and Justice McKenna dissented.

Stanton Carver v. McCloud.—In a habeas corpus proceeding, instituted to bring before the court the case of Oberlin M. Carter, formerly a captain in the Engineer Corps of the army, serving a term of imprisonment in the Leavenworth Penitentiary under the sentence of a court-martial. Carter was tried and convicted and was sentenced to be dismissed from the army and pay a fine of $5,000, and to be imprisoned in the penitentiary for 5 years. The principal point made was that, having paid the fine and been dismissed from the army, he could not be imprisoned in the penitentiary without punishing him twice for the same offense. The court held that he had been convicted under separate charges of distinct offenses, for which the court-martial was empowered to punish him. The rule was reiterated, that civil tribunals will not revise the proceedings of courts-martial, except for the purpose of ascertaining whether they had jurisdiction of the person and of the subject-matter, and whether of the judgment, they have exceeded their powers in the sentences pronounced.

Exclusion of Alien.—Fok-Yung-Yo v. United States, decided May 8, 1902. This case related to the privilege of transit of Chinese persons across the territory of the United States, and raised an inquiry as to the power of the judiciary to interfere with the action of the executive authorities of the Government in such matters. The conclusions of the court were as follow: The power to exclude or expel aliens is vested in the political departments of the Government, to be regulated by treaty or by act of Congress, and to be executed by the executive authority according to such regulations, except so far as the judicial department is authorized by treaty or by statute, or is required by the Constitution, to intervene. And this is true of the privilege of transit. By the treaty between the United States and China, of 1894, the privilege of transit across the territory of the United States could only be enjoyed subject to such regulations of the Government of the United States as might be necessary to prevent its being abused. Under existing regulations the action of the collector of customs in refusing transit cannot be interfered with by the courts. Justices Brewer and Pecking laid to command compliance with the order of the commission was right and must, therefore, be affirmed.

Tax on Merchandise Brokers.—Stockard v. Morgan, decided April 7, 1902. This case raised
the question of the validity of the Tennessee statute providing for the collection of a privilege tax on merchandise brokers. It was held that the statute violated the interstate commerce clause. The Constitution, it was said, is a compact among the States, and it is in effect a tax upon interstate commerce, and the fact is not altered by calling the tax one upon the occupation of the individual residing within the State while acting as the agent of a non-resident principal.

**Illinois Antitrust Statute.**—Connolly vs. Union Sewer-Pipe Company, decided March 10, 1902. This case grew out of the sale of pipe by the pipe company to Connolly and others, who, after securing it, declined to make payment on the ground that the company was an illegal combination for the restraint of trade under that law, and was a combination in violation of the Sherman antitrust law, and, further, a violation of the antitrust law of the State of Illinois. The case was heard later, and was declared invalid.

The ninth section of the statute declares that "the provisions of the act shall not apply to agricultural products or live stock while in the hands of the producer or raiser," thereby excepting the articles named under certain conditions from the operation of the statute. This clause the Supreme Court held to be class legislation and was held invalid. The court declared that with this clause. An antitrust law to be constitutional must apply indiscriminately to all combinations. The State has the power by appropriate legislation to protect the public morals, the public health, and the public safety; but if, by their necessary operation, its regulations looking to either of these ends amount to a denial to persons within its jurisdiction of the equal protection of the laws, they must be deemed unconstitutional and void. Mr. Justice McKenna filed a dissenting opinion.

**Illinois Mine Law.**—St. Louis Consolidated Coal Company vs. Illinois. This case involved the constitutionality of the Illinois statute providing for the inspection of mines. The law was declared unconstitutional, and required an inspection only of mines employing more than five miners, and that it gave a discretion to the inspectors to determine how many times a year a mine could be inspected and also what fees within certain limits should be charged for inspection. The court affirmed the decision of the Illinois Supreme Court and held the law to be invalid.

**Illinois Statute against dealing in Futures.**—In the case of Booth vs. Illinois, decided March 3, 1902, the Supreme Court upheld the validity of the Illinois statute against dealing in options on grain or other commodities. The statute attempts to corner the market, to influence it by spreading false reports, or contracts to buy or sell at a future time grain or other commodities, and Booth, a grain and provision broker, was indicted for violation of the statute and was convicted in the lower courts, and the case was heard in the United States Supreme Court. It was held that the statute was repugnant to the fourteenth amendment of the Constitution. Justice Harlan, in delivering the opinion of the court, said: "The statute is repugnant to the provision and that it was repugnant to the fourteenth amendment of the Constitution. Justice Harlan, in delivering the opinion of the court, said: "The statute is repugnant to the fourteenth amendment of the Constitution. Justice Harlan, in delivering the opinion of the court, said: "The statute is repugnant to the provision for the consideration of the Illinois Legislature. The courts have nothing to do with the mere policy of legislation. Justices Brewer and Peckham dissented. Kentucky Constitution affecting Interstate Commerce.—Louisville and Nashville Railroad Company vs. Eubank, decided Jan. 27, 1902. This case involved a section of the State Constitution of Kentucky prohibiting a greater charge for short than for long hauls on railroads, and its validity when the larger haul was beyond the State limit. Eubank alleged that he paid 55 cents a hundred pounds for transporting tobacco from Franklin, Ky., to Louisville, 134 miles, while only 12 cents was charged for transporting it from Nashville to Louisville, 50 miles further. It was held that the section in question was invalid as far as it was made applicable to or affected interstate commerce, the power of regulating which belongs to Congress exclusively. Justices Brewer and Peckham dissented.

**Foreign Insurance Companies.**—The case of Notting vs. Massachusetts, decided Jan. 13, 1902, involved the constitutionality of the law of that State prescribing penalties upon brokers who negotiate or make contracts in the State of Massachusetts with insurance companies that are not permitted to do business in the State. The decision was rendered by the court as to a law which interfered with interstate commerce. A contract of marine insurance is not an instrumentality of commerce, but a mere incident of commercial intercourse. The State, having the power to impose conditions upon the transaction of business by foreign insurance companies within its limits, has the equal right to prohibit the transaction of such business by agents or anyone, or by insurance brokers, who are to some extent the representatives of both parties.

**Street-Railway.**—Street-Railway Company vs. Detroit Citizens' Street Railway Company. The decision in this case was that the ordinance enacted by the city government of Detroit arbitrarily reducing street-car fares three cents was without binding effect. The decision was based on the ground that a previous ordinance had fixed the fares at five cents, such ordinance being in the nature of a contract. Justice Peckham, in delivering the opinion of the court, said: "It is a contract which gives the company the right to charge a rate of fare up to the sum of five cents for a single passenger, and leaves no power with the city to reduce it without the consent of the company."

**State Quarantine Regulations.**—Compagnie Francaise, etc., vs. Louisiana State Board of Health, decided June 9, 1902. An action was brought against the Louisiana State Board of Health for damages by the owners of a French steamer that sought to land passengers in New Orleans in 1898, but was refused. The passengers and cargo were from foreign ports free from any infectious disease, but there was a quarantine in force at New Orleans against yellow fever, and the Board of Health. But an unwise and ill-advised enactment is not necessarily for that reason invalid. It may be, as suggested by counsel, that the steady, vigorous enforcement of this statute will materially interfere with the handling or moving of vast amounts of grain in the West, which are now disposed of by contracts or arrangements made in the Board of Trade in Chicago. But the decision of the Supreme Court of Tennessee was reversed. When the tax is applied to an individual within the State, selling the goods of his principal, who is a non-resident of the State, it is in effect a tax upon interstate commerce, and the fact is not altered by calling the tax one upon the occupation of the individual residing within the State while acting as the agent of a non-resident principal.
stitution nor in conflict with treaties, but a distribution of the power of the State, as interfering with foreign or interstate commerce and in conflict with the Constitution and our treaties with foreign nations.

Colorado's Stock Quarantine.—The court sustained the constitutionality of the stock quarantine law of Colorado, in the case of Reed vs. Colorado. The law prohibits importation of cattle or other live stock into the State from points south of the thirty-sixth parallel of latitude, between the lines of the Constitution and our treaties with foreign nations.

State Tax Laws.—The case of the Cleveland Trust Company vs. Landes, involved the method of levying taxes on the shares of a corporation under the Ohio statute. This case cited the opinion of the State law, affirming the decision of the court below. What the Constitution or statutes of a State require as to taxation must be left to be decided by the Supreme Court of the State, while the Constitution of the United States vs. Connecticut.—Decided May 5, 1902. This case involved the constitutionality of the laws of Connecticut in regard to taxation of stock held by non-residents in a local corporation. The law was sustained, and the difficulty of adjusting a system of perfect equality in taxation was stated. Merely inequality in the results of a State tax law is not sufficient to invalidate it.

New Hampshire Law.—The case of Collins vs. New Hampshire involved the constitutionality of the New Hampshire law that forbids the coloring of oleomargarine yellow. The judgment of the Supreme Court of New Hampshire was affirmed by an equally divided court. The provision in question, therefore, remains in force.

Stamp Tax on Dramshop Bonds.—United States vs. Union National Bank. Under the laws of the State of Illinois and the ordinances of the city of Chicago, it is necessary for a person making application for a license as a saloonkeeper to file with the city collector a bond. The case of the United States vs. Ambrosini involved the question whether such bonds were subject to a stamp-duty under the war-revenue act of 1898. The case was decided in favor of the Government in the lower court. It was taken to the Supreme Court, where a decision was rendered, holding that such bonds were not taxable by the United States. The court said: "The legislation was enacted in the exercise of the police power for the safety, welfare, and health of the community, and it is conceded that that power is a power reserved by the States, free from federal restriction. The general principle is that as the means and instrumentalities employed by the General Government to carry into operation the powers granted to it are exempt from taxation by the States, so, likewise, those of the States exempt from taxation by the General Government."

Insurance Cases.—Northern Assurance Company vs. Ford. When a policy of insurance provides that notice of prior or subsequent insurance must be given by indorsement upon the policy or by other writing, such provision constitutes a condition the breach of which will void the policy. Parol evidence is inadmissible to contradict or vary the terms of a valid written instrument. The subject of waiver by agents was considered.

The decision in the case of Lewis vs. the Iowa Insurance Company, delivered Dec. 8, 1902, established a rule in regard to notes given for the payment of life-insurance policies. Many policies are issued, the insured giving a note or notes for the payment of the first premium, the notes bearing a stipulation that in default of payment when due the policy shall cease and determine. In some States it has been held that default of payment terminated the policy. In others it has been held that the company must pay the face of the policy, deduction, in case of default. If in a premium note, the amount thereof with interest. The Supreme Court held that the policy lapsed on default of payment of the note.

Knight Templar and Mason Life Indemnity Company vs. Jarman involved what is known as the suicide statute of Missouri. It was held that the policy must be paid in case the insured committed suicide while insane, notwithstanding it contained a provision of voidance in case of suicide whether the party was sane or insane.

Burt vs. the Union Central Life Insurance Company, decided Dec. 22, 1902. The question of the effect of murder upon a life-insurance policy when issued upon the life of the murderer was passed upon in this case. William E. Burt was insured. His policy was made payable to his wife, and, in case of her death, to his executors. Burt's wife died, and he was charged with her murder, and was found guilty and executed. The heirs of the estate made an effort to collect upon the policy, but the insurance company refused payment. The court affirmed the decision of the Court of Appeals, holding the policy invalid, on the ground that to sanction payment under the circumstances would be contrary to public policy. "It can not be that one of the risks covered by a contract of insurance is the crime of the insured. There is an implied obligation on his part to do nothing to wrongfully accelerate the maturity of the policy. Public policy forbids the insertion in a contract of a condition which would tend to induce crime, and as it forbids the introduction of such a stipulation, it also forbids the enforcement of such a condition in circumstances which can not be lawfully stipulated for."

ALABAMA, a Southern State, admitted to the Union Dec. 14, 1819; area, 52,250 square miles. The population, according to each decennial census since admission, was 127,001 in 1820; 339,227 in 1830; 595,756 in 1840; 771,023 in 1850; 964,401 in 1860; 958,992 in 1870; 1,242,565 in 1880; 1,413,017 in 1890; and 1,828,697 in 1900. Capital, Montgomery.

Government.—The following were the State officers in 1902: Governor, William D. Kelks; Secretary of State, Robert P. McDavid; Auditor, Thomas L. Sowell; Treasurer, J. Craig Smith; Attorney-General, Charles G. Brown; Superintendent of Education, John W. Abercombie, who reigned to become president of the State University, and was succeeded July 1 by Harry C. Gunnels; Commissioner of Agriculture, Robert R. Poole; Adjutant-General, William B. Revson; State Examiner of Public Accounts, John T. Gorman; State Tax Commissioner, Harvey E. Jones; Railroad Commissioners, John V. Smith, W. C. Tunstall, A. E. Catron; President of the Board of Convict Inspectors, J. M. Carmichael; Director of the State Department of Archives and History,
United States of America. (Alabama.)

Thomas M. Owen, Agent for the Sale of Swamp Lands, W. M. Byrd; Chief Mine Inspector, J. de R. Hooper; Chief Justice of the Supreme Court, Thomas N. McClellan; Associate Justices, Jonathan Haralson, John K. Tyson, Henry A. Sharpe, James E. Dowdell; Clerk, Robert F. Ligon, Jr. All are Democrats.

By the terms of the new Constitution, which now goes into effect, the term of State officers is four years; and the Legislature will meet once in four years, on the second Tuesday in January; it will meet in 1903.

Financial.—The balance on hand in the treasury Oct. 1, 1901, was $501,350.24. The receipts to the close of business July 28 were $2,809,260.71; the disbursements, $2,407,448.04.

The revenue collected by the Tax Commissioner in 1901 from escaped taxes, taxes from undervaluations, and delinquent licenses, amounted to $155,573.69.

The valuation of the State for 1902 amounts in round numbers to $229,000,000, an increase of about $9,000,000. The taxable property in 1901 amounted to $284,622,937

The bonded debt, according to the report for 1901, was $407,600; in 1900 it was $444,680.

Poll-Taxes.—The law requires a poll-tax of $1.50 to be paid before Feb. 1. No provision is made for collecting it if delinquent; the penalty is the loss of the delinquent's vote. It is estimated that 90 per cent. of the negroes of voting age under forty-five have been disqualified by failure to pay the $1.50 poll-tax this year. The reduction of the white vote has been great. The total number of white males in Alabama of voting age is 232,294, and of these 139,000 are subject to poll-tax. Not less than 40,000 of them failed to pay the tax, and consequently are not qualified to vote. Persons who failed to pay the $1.50 poll-tax this year may restate themselves as electors next year by paying $3, and the next year by paying $4.50, and so on.

Education.—In the Annual Cyclopaedia for 1901 were given the figures of literacy of the voters of the State. Further census bulletins give the whole number of illiterates in the State as 443,690; and the percentage of persons between the ages of ten and fourteen who were able to read and write in 1900 as 71.11. This is an advance on the percentage for 1890, which was 64.50; but only two States—South Carolina and Louisiana—stand lower. These figures afford a measure of the efficiency of the public schools. The enrolment in the public schools in 1900 was 429,848; the average attendance was 158,976. The amount expended from the general school fund gave $1.42 per capita on the basis of the whole number of children of school age, and $2.75 per capita for those actually enrolled. This does not include the poll-tax or the funds appropriated by municipalities. In a table showing the average monthly wages paid to teachers in the various States, Alabama is credited with $32.04 to male teachers; 3 States standing lower; and $25.35 to female teachers, North and South Carolina alone showing a lower average.

The twentieth annual commencement of the Troy Normal College took place in May with a graduating class of 12.

The enrolment at the Alabama Polytechnic Institute, at Auburn, Oct. 18, was 400, the largest number ever in attendance at one time.

In April the Medical College at Alabama graduated a class of 12 in medicine and 1 in pharmacy.

The Agricultural and Mechanical College at Evergreen, began its fall term in September with 9 teachers and 113 pupils.

The following paragraphs are from the report of the principal of the Tuskegee Normal and Industrial Institute, Booker T. Washington:

"The number of students enrolled during the year covered by the report was 1,384, and the average attendance has been 1,218. These students have come from 30 States and Territories, and from 5 foreign countries. No one has been admitted under fourteen years of age; 1,357 of the whole number have boarded and slept on the grounds. The number which I have given does not include the pupils in the Children's House, which is a primary school for the children in the neighborhood, and at the same time serves as a model and training school for normal students.

"Neither does it include the 121 students in the night-school in town, nor the 18 students in the afternoon cooking-school in the town of Tuskegee; nor the thousands of colored men and women who are being reached and helped through the Tuskegee Negro Conferences. In all the departments, religious, academic, 112 teachers and instructors and assistants of various kinds have been employed.

"If we add the number of persons in the families of our instructors, the number of students, and teachers, it is safe to say that we have constantly upon or near our school-grounds a colony of 1,500 people. A large proportion of these families reside in some neat cottages owned by themselves or by the school, and the object-lesson they afford is most valuable to the students and to our people in this part of the State.

"Up to the present time there have grown out of the Tuskegee Institute at least 12 schools of considerable size—I mean institutions above the grades of common public schools. One of these, the Snow Hill Industrial Institute, at Snow Hill, Ala., has 300 students, 25 teachers, 14 buildings, and property valued at $3,000.

"Since my last report there have been received by our treasury from all sources and for all purposes $341,401.09. Of this amount $128,864.29 have been used for current expenses, $46,788 have been added to the permanent endowment fund, and $150,203.95 for the permanent improvement of the plant. The present indebtedness of the school is $5,887.52. The endowment fund amounts to $289,759.02.

"In regard to the training the report says: "Industry after industry has been added, as there was a natural demand for them, until at the present time the students receive training in 34 industries. You will be some idea of the volume of the industrial work accomplished by the students when I add that since my last report they have made 2,128,000 bricks alone."

"Soldiers' Home.—Land for a home for Confederate veterans has been given by J. M. Falkner at Mountain Creek, about 27 miles from Montgomery. Lumber and other materials have been given as well as money by various firms and individuals, and some of the smaller buildings are already ready erected. A plan has been adopted for marking the logs of the headquarters building with brass plates bearing the names of veterans, for each of whom $10 are paid to the fund for the home. A book of record will be kept, giving a biographical sketch of each veteran for whom a memorial log is named.

"Banks.—A bulletin issued in September by the Treasury Department, shows that 16 new national banks were established in Alabama in the period between March 14, 1901, and Aug. 31, 1902. These banks are the Agricultural School at Evergreen, with $35,000, each, and the other 10 more. The combined capital is $777,500.
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Convicts.—By the report of July 1 it was shown that there were then 1,666 State convicts, 478 under Federal contracts, and 390 were worked on the State farms or kept at the State prisons. The net profits from the department for the year ending Sept. 30 were $56,885.61. On Jan. 1, 1902, a new system in regard to the leasing of convict labor will go into operation. The conditions as regards the treatment of convicts by contractors have been much improved in the past two years. Some of these conditions were described in the Annual Cyclopedia for 1901. This year one of the inspecting physicians reported that the mines at Coalburg, where many were employed, were weapons until for the compulsory working of men. “On April 1, 1899, there were 559 convicts confined there. Between that time and April 1, 1902, 1,676 convicts have been received by the other 210. Of this number 100 have died, 87 from disease and 13 from accident and other causes.” After this report the contracting company removed the convicts to a better location, and the prisoners will be under the direct supervision of State officials.

At the Boys’ Industrial School, also known as the East Lake Reformatory, established in 1900, there are at present 174 boys in residence. The receipts for the year were $16,445.34, and the expenditures $15,813.23. Boys are employed in printing, shoe, and carpenter shops and on the farm; military drill is given and each boy has a half day’s work in school.

Crime.—The biennial report of the Attorney-General, which covers the two years ending Sept. 30, 1902, shows that 13,386 criminal cases were disposed of in Alabama in that period. The figures in the report show that 61 per cent. of these cases resulted in conviction. More cases against prisoners charged with carrying concealed weapons were disposed of than for any other offense. In the two years, 1,349 concealed weapon cases were disposed of.

Military.—The report of the Adjutant-General shows the strength of the National Guard to be nearly 3,000. There is 1 battalion of artillery with 3 batteries, 17 officers, and 171 enlisted men and non-commissioned officers; 1 squadron of cavalry, consisting of 12 officers and 187 non-commissioned officers and enlisted men; and 3 regiments of infantry with 153 officers and 2,187 men; there is also a complete hospital corps with 120 artists. Of the regiment that enlisted 2 negroes were seriously shot, 1 white man was fatally wounded, and another was missing and supposed to be dead.

Lawlessness.—Two “race riots” were reported this year, one at Jasper, March 26, the immediate occasion of which was the whipping of 2 negroes by white men on a charge of stealing. The other took place at Littleton, 25 miles from Birmingham, Oct. 19. It arose, according to the dispatch, from a white man being pushed from a railroad car by negroes. Of the eight that ensnared 2 negroes were seriously shot, 1 white man was fatally wounded, and another was missing and supposed to be dead.

A negro resisting arrest near Tuscaloosa, April 6, was shot by the negroes in the crowd and later died of his injuries. On the 9th, a negro was lynched near Troy, March 24, charged with assault on a little white girl. From testimony taken afterward it appeared that the charge was false, having originated with a woman who sought revenge on the negro for having given evidence against her in a suit for slander, and several alleged lynchers were arrested.

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respectively 849,800 and 79,453 tons. The total shipments from the Southern field in the first half of the year aggregated 967,716 tons, of which 904,014 tons were pig-iron and steel and 83,702 tons were cast-iron pipe.

Labor.—A strike took place in the mines of the Tennessee Coal, Iron, and Railroad Company in the Birmingham district, involving about 4,500 men. It arose from the refusal of about 70 of the miners to allow the assessment for the anthracite strikers to be withheld from their wages. The company held that it could not collect the assessments against the protest of the men, and a strike was ordered Oct. 1. It was settled Oct. 15.

Mobile.—The celebration of the bicentennial of the founding of Mobile, the first capital of Louisiana, at Twenty-seven-Mile Bluff, on Mobile river, began Jan. 22 with a grand civic parade and the placing of a tablet in honor of the brothers Iberville and Bienville. The inscription on the bronze memorial tablet on the stone base of the colonnades supporting the portico of the county court-house is as follows: "1902. To the Glory of God. Erected in Honor of the Illustrious Brothers Bienville and Iberville, who Founded Mobile, the First Capital of Louisiana, 1702." The exercises of the second day were held at the site of Fort Louis de Mobile. On the site of the old fort the granite shaft unveiled bears this inscription: "Erected by the People of Mobile, Jan. 23, A. D. 1902, to Commemorate the Two Hundredth Anniversary of the Founding Home of Fort Louis de Mobile by Pierre Le moyne Sieur d'Iberville and Jean Baptiste Le moyne Sieur de Bienville."

Alexander City.—This little place of 1,500 inhabitants was practically destroyed by a fire in June, the loss reaching by estimate $750,000, which was not nearly covered by insurance.

Con Koperal Appropriations.—For improvement of waterways wholly or partly in Alabama, Congress made the following appropriations: Mobile harbor, $300,000; Alabama river, $20,000; Black Warrior, Warrior, and Tombigbee rivers, $20,000; Choctawatchee river, $16,000; Chattahoochee river, $100,000; Coosa river, $35,000. A survey was ordered to be made of the Coosa and Alabama rivers with a view to determining the practicability of securing a uniform 6-foot navigation in them and the probable expense; also the advisability of further prosecuting the present project for locks and dams in the Coosa and Alabama rivers.

The amount for the public buildings at Anniston was raised from $50,000 to $75,000; and that for the post-office and court-house at Montgomery from $185,456 to $250,456.

Political.—State officers were elected this year in November, the time of the State election having been changed. In view of the general demand in the Democratic party for the nomination of candidates for State offices by a general primary instead of by convention, the State Committee, at its meeting in July, ordered such a primary to be held on the 15th of November; the date was fixed at Aug. 25. If a second primary were necessary, it should be held Sept. 15; and if a third, Sept. 29. There had been some sentiment in favor of making it a general white primary, but the action of the committee limited the right to vote to white Democrats.

Gov. Jelks was a candidate for renomination, and opposed to him was ex-Gov. Johnston. The candidacy of Governor Russell M. Cunningham, Charles E. Waller; Secretary of State, J. Thomas Heflin, Frank N. Julian, J. L. Tanner; State Treasurer, J. Craig Smith; State Auditor, T. L. Sowell; Attorney-General, James E. Cobbs, Alex. M. Garber, Alex. Troy, Massey Wilson; Superintendent of Education, Thomas L. Bulger, ChapPELL Cory, John G. Harris, Isaac W. Hill; Commissioner of Agriculture, R. R. Poole.

At the primary, Aug. 25, Gov. Jelks received a majority of 25,746 out of a total of 89,236 votes polled. For the office of Attorney-General a second primary was needed to decide between Messrs. Garber and Wilson; and for Superintendent of Education Messrs. Harris and Hill also would have entered the second but not Mr. Harris withdrew. The ticket as finally fixed was: For Governor, William D. Jelks; Lieutenant-Governor, R. M. Cunningham; Secretary of State, J. Thomas Heflin; Treasurer, J. Craig Smith; Auditor, Thomas L. Sowell; Attorney-General, Massey Wilson; Superintendent of Education, Isaac W. Hill; Commissioner of Agriculture and Industries, R. R. Poole.

The State Executive Committee of the Republican party met in Birmingham Aug. 2 and called a convention to meet there Sept. 18 to nominate a ticket for the United States Senate. The action of the committee was the adoption of the following resolution:

Resolved, That only those shall be recognized and permitted to participate in the State and county conventions and be at meetings who are duly qualified voters under the new Constitution of Alabama.

The effect of this is to make the Republican party in Alabama a white man's party, as under the new Constitution of the State the negroes are practically all disfranchised.

No negro's name appeared upon the report of the Committee on Credentials for the convention, which was adopted, although on the list of delegates from more than one county there were names of negroes when the credentials were given to the subcommittee for action.

The platform of the convention as reported reaffirmed the Philadelphia platform, favored 'the organization of labor for its legitimate protection and the enactment of laws for the peaceable and fair settlement by arbitration of disagreements as they may arise between organized capital and labor,' "favorableness to securing uniform 6-foot navigation in them and the probable expense; also the advisability of further prosecuting the present project for locks and dams in the Coosa and Alabama rivers."
nation in 1904. The majority for adoption was large.

The ticket follows: For Governor, J. A. W. Smith; Lieutenant-Governor, Charles F. Lane; Attorney-General, H. Armbruster; Secretary of State, J. H. Karter; Auditor, T. B. McNair; Treasurer, H. Lee Brown; Superintendent of Education, J. C. Fosvile, Crenshaw County; Commissioner of Agriculture, I. B. Morton.

The Prohibitionists met Aug. 13 and adopted a platform in accordance with the party principles.
The ticket was: For Governor, W. D. Gay; Lieutenant-Governor, H. L. Martin; Secretary of State, T. D. Witherspoon; State Treasurer, R. O. Simpson; Commissioner of Agriculture and Industries, Dalney Palmer; State Auditor, C. D. Alverson; Superintendent of Education, O. E. Comstock; Attorney-General, W. W. Whiteside.

These names did not, however, appear on the official ticket filed by the Secretary of State.

At the election Gov. J’ska’s vote was 67,760, against 24,423 for Smith. The entire Democratic ticket was successful, including the candidates for Congress. The Legislature is almost entirely Democratic.

In May an organization called “the Colored Man’s Suffrage Association” was formed for the purpose of fighting the new Constitution of Alabama in the courts, and subscriptions were taken for a fund of $2,000 to be used for this purpose.

Steps had already been taken to test the suffrage provision by an action brought in the name of a negro who made affidavit that he was denied the right to register, though complying with all the qualifications exacted by the Constitution. He asserted that he was denied the right because he is a negro, and invokes the fourteenth and fifteenth amendments in support of his contention.

In December negroes from all parts of the State met at Selma to form a colored Republican party. Resolutions were adopted indorsing the action of President Roosevelt in not recognizing the “Lily White” branch of the party in Alabama. An address was issued to the negroes of the State, advising them to appeal to the Democrats to allow them to register.

ALASKA, a Territory of the United States, in the extreme northwestern part of the North American continent. It stretches from the United States in a treaty concluded March 30 and proclaimed June 20, 1867, in consideration of the payment of $7,200,000. The population in 1860 (each decennial census was 33,426 in 1880; 32,022 in 1890; and 63,592 whites, native born 21,709, foreign born 8,789; Indians, 29,538; negroes, 168; Chinese, 3,116; Japanese, 295) in 1900. Its area according to the census of 1900, is 900,844 square miles, including a strip, known as Southeast Alaska, 600 miles long, bounded south by Dixon Sound and Fortland Channel, and east by the summit line of the mountains parallel to the coast; and where such a line is at a greater distance than 10 marine leagues (34° statute miles), by a line drawn parallel to the windings of the coast, which shall never exceed 10 marine leagues therefrom. The position of the boundary of this southeastern extension is now a matter of dispute between Great Britain and the United States.

Government.—The temporary seat of Government is at Sitka, formerly the Russian capital. The following were the officials of the Territory in 1901: Governor, J. H. Karter; Postmaster General, William L. Distin; Surveyor-General, William L. Distin, Sitka; Register, John W. Dudley, Juneau; Receiver, T. M. Mullan, Juneau. Department of Agriculture—Special Agent, C. C. George, Sitka. Superintendents,—Fred. K. Rader, Sitka; H. P. Nielsen, Kenai; T. W. Neal, Copper Center. Bureau of Education.—Agent, Sheldon Jackson; Assistant Agent, William Hamilton; Superintendent of Schools, W. A. Kelly. Internal Revenue, John Cameron, Deputy Collector, Juneau.

Banking.—The only national bank in Alaska is the First National Bank of Juneau. Its condition at the close of business Dec. 10, 1901, was:

- Resources—loans and discounts, $45,524.20; United States bonds, $87,600; stocks, securities, etc., $7,390.08; banking-house, furniture, and fixtures, $4,480; due from national banks, $4,464.62; due from State banks and bankers, $9,046.43; due from reserve agents, $13,019.08; checks and other cash items, $10,100.33; total specie, $41,796.05; other resources, $10,119.81; total resources, $231,469.00.

- Liabilities—capital stock, $50,000; surplus and undivided profits, $2,841.98; national bank-notes outstanding, $4,370; dividends unpaid, $622.50; individual deposits, $99,669.12; United States deposits, $53,141.28; deposits of United States disbursing officers, $21,318.82; total liabilities, $231,469.00.

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Commerces and Navigation.—Alaska forms a single customs district of the United States, with Sitka as its port of entry. The following are classed as subclasses of entry: Dyes, Eagle City, Wrangell, Mary Island, Juneau, Sitka, Cook Inlet (Homer), Orca, St. Michael Island, Skagway, Unga, Karluk, Chichikana. In the fiscal year ending June 30, 1901, 15 sailing vessels, of 6,940 tons, and 266 steam-vessels of 191,664 tons, were entered by the district of Alaska, of which 7 sailing vessels, of 5,519 tons, and 179 steam-vessels, of 128,785 tons, were American; during the same period 153 sailing vessels, of 1,845 tons, and 261 steam-vessels, of 164,678 tons, were cleared, of which 1 sailing vessel, of 1,332 tons, and 149 steam-vessels, of 102,931 tons, were American. During the fiscal year ending June 30, 1902, 15 sailing vessels, of 5,870 tons, and 292 steam-vessels, of 188,471 tons, were entered, of which 9 sailing vessels, of 3,369 tons, and 180 steam-vessels, of 125,504 tons, were American; during the same period 11 sailing vessels, of 775 tons, and 226 steam-vessels, of 149,388 tons, were cleared, of which 3 sailing vessels, of 235 tons, and 131 steam-vessels, of 93,253 tons, were American.

The total values of exports for the fiscal year ending June 30, 1901, were gold, $1,900; merchandise, $2,534,318, of which $2,018,104 represents the value of domestic products and manufactures, and $516,214 of which foreign products and manufactures. The imports were: Gold (from British Columbia) $1,919,907; merchandise, $557,992. The total value of exports for the year ending June 30, 1902, were: Gold, $506,817; merchandise, $2,012,021, of which $2,537,325 represents the value of domestic products and manu-
The figures are for the foreign commerce alone, and do not include the values of merchandise shipped to and from the United States.

The total value of domestic merchandise imported into Alaska from the United States during the six months ended Dec. 30, 1902, was $3,318,079, and of foreign merchandise $4,771; the total value of imports from foreign countries was $307,963.

Of the exports to the United States during the same period, the value of foreign merchandise was $34,408, the value of domestic merchandise $9,775,193; of the exports to foreign countries, the value of foreign merchandise was $10,952,286, of domestic merchandise $1,236,463. The total values of gold and silver coin and bullion exported from Alaska to the United States during the same period were: Domestic $22,797,265, foreign $10,653,286; the total value of gold and silver imported from the United States was $109,863.

Manufactures.—The bulletin of manufactures of the United States Census of 1900 gives the following comparative statistics of manufactures for Alaska:

<table>
<thead>
<tr>
<th>Item</th>
<th>1890</th>
<th>1900</th>
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<tbody>
<tr>
<td>Number of establishments</td>
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<td>80</td>
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<tr>
<td>Capital</td>
<td>$100,747</td>
<td>$80,600,400</td>
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<td>Salaries, clerks, etc.</td>
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<td>89</td>
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<tr>
<td>Salaries</td>
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<td>$177,490</td>
</tr>
<tr>
<td>Average number of wage-earners</td>
<td>78</td>
<td>2,963</td>
</tr>
<tr>
<td>Most skilled years and over</td>
<td>78</td>
<td>2,968</td>
</tr>
<tr>
<td>Wages</td>
<td>$19,526</td>
<td>$350,700</td>
</tr>
<tr>
<td>Miscellaneous expenses</td>
<td>$9,352</td>
<td>$170,334</td>
</tr>
<tr>
<td>Cost of materials used</td>
<td>$20,195</td>
<td>$1,706,775</td>
</tr>
<tr>
<td>Value of products, including custom and repair parts</td>
<td>$25,440</td>
<td>$4,950,984</td>
</tr>
</tbody>
</table>

* Includes proprietors and firm members, with their salaries; not included for 1900.

Of 45 establishments reporting in 1900, using 1,902 horsepower, 1,078 was derived from 49 steam-engines, 597 from 14 water-wheels, and 287 from 11 electric motors. Of 9 establishments reporting in 1890, using 546 horsepower, 290 was derived from 7 steam-engines, and 161 from 3 water-wheels.

Mineral Resources.—The final estimate of the Director of the Mint, based upon the receipts at San Francisco, Seattle, and the Selby Refinery, places the total output of gold from Alaska for the ten months ended Nov. 1, 1902, at $18,870,075, of which quantity 4,000,000 came from the Nome district, and the remainder from the Yukon districts, the Canadian Klondike, and southeastern Alaska. This is more than $4,000,000 in excess of the Alaska output for the calendar year 1901, the figures for that year being $14,675,675. In the output for the ten months is included $250,000 expected to arrive from the Klondike before Jan. 1, and $1,300,000 expected from Nome.

The Seward peninsula continues to be the objective point for placer-mining, and with improved methods its phenomenal yield is increasing rather than diminishing, as was predicted for the Nome workings in their early days. New workings have been opened up in every direction and are yielding in paying quantities. The rich discoveries in the Forty-Mile district have attracted many miners from the Klondike country. The distributing point for this district is a new camp called Wickersham, after the judge of the district. Another is the estimate of the Governor the miners at the head waters of the Koyukuk river, a tributary to the Yukon from the northward, cleaned up $900,000 during the season. The new placer-mines in the vicinity of Rampart have shown rich deposits. Rampart offers especial advantages as a distributing point on account of its possibilities in agriculture and stock-raising. Good claims have been worked in the region north and south of the sixty-fourth parallel and immediately west of the one hundred and forty-first meridian. Here is a vast field for mining operations, but placer mining is too expensive for him to do much on an extensive scale. Placer discoveries of great importance have been found on tributaries of Copper river. Though on the Chitina river have been worked more than two years. The Nazina river, a branch of the Chittyna river which flows into the Copper from the east, has attracted marked attention. Mining is going on in the north part of Kenai peninsula, and a fairly prosperous season is reported. The Porcupine district, near the boundary-line up Chilkat river from Haines, has made a good showing. One hydraulic plant has been running several years in Silver Bow basin, near Juneau.

The chief production of gold from quartz-mines is in southeastern Alaska, where several companies operate large and expensive mines. For 1902 one of the great 300-stamp mills of the Alaska-Treadwell mine near Juneau being the largest of its kind in the world. The Treadwell Company operates four mills—1 with 300 stamps and one with 120 stamps, and the other with 100 stamps, while the Alaska Mexican Company operates one mill with 120 stamps.

Preliminary work has been begun near Juneau on one of the largest and longest mining tunnels in the world. The tunnel will be about 10,000 feet long and will extend from the beach south of Juneau into the mountains to tap claims in the Silver Bow basin.

Much interest has been manifested in the copper prospects of Alaska. There are large deposits of ore on Prince of Wales island, at Ilimar, on Prince William Sound, and on Lautseis island. A great deal is being taken out, and efforts are being made to invest capital in the exploitation of this industry.

Finds of cinnabar, platinum, tin, iron, and diamonds are also reported, and the extensive deposits of gypsum on Clearwater Bay, Chatham Straits, are receiving attention. Analysis shows it to be 98 per cent. pure and the vein is 75 feet wide, traceable on the surface 700 feet.

Coal of mid-oceanic quality is found in the Territory. Admiralty island has the most valuable field so far discovered. Important discoveries are reported to have been made in 1902 of large veins and fine quality on the mainland south of Kayak island. Kenai peninsula is nearly all coal land. There is coal on the Tanana, and in several places on the Yukon.

Oil has been discovered on the Comptrollers Bay, where a well has been driven several hundred feet, and there is a flow of a fine grade of oil. The field is large. Oil has also been found in the region around Lake Iliamna on the Alaska peninsula.

Fisherias.—The canning industry was represented in 1901 by 30 companies and individual packers, with 55 canneries and 12 salteries, canning 3,500,000,000 pounds of salmon. The plants were valued at $12,000,000; number of salmon taken, 1,900,000,000; output, 2,029,269 cases of 48-pound cases, or 18,942 barrels, in all about 1,000,000 pounds of salmon. The value of the salmon pack was estimated at $6,926,167. The total value of the catch of codfish in the same year amounted to less than $150,000. Some halibut was taken.
and there is a small trade in salted herring; but no figures are given. The purchase value of the salmon pack for 1902 was $7,300,000. Several hatcheries are in operation, and it is the desire of the cannery owners to cooperate with the Gov
erment in preserving the fish, but the hatcheries are mostly in the hands of men little skilled in such work, and hence not producing satisfactory results. The United States revenue-cutters Perry and Rush were in Alaskan waters during the season to enforce the fishery laws, and many complaints of violations were prosecuted. The Oil and Guano Company, at Kiliusnooo, has closed its first season and reports a ready market for its products.

The value of the products of the whale fishery brought into the United States from Alaska during the fiscal year ending June 30, 1901, was $61,147, of which $66,573 represents the value of 14,062 pounds of whalebone or baleen and $4,274 of other products.

Sealing.—The Pribilof Islands are the breeding-place of the fur-seals which inhabit the Paciﬁc Ocean. They were considered a part of Alaska and included in the cession by Russia. They were the breeding-place of the fur-seals when discovered by the Russians in 1786, and a Russian company was formed the purpose of taking the skins of these animals, and continued its operations up to the time of the transfer of the islands to the United States in 1867. In 1889 a contract was made with the North American Commercial Company, ﬁxing the rental of the lands at $60,000 and a tax upon each skin at $0.63$.

Under this lease, as construed by the Supreme Court of the United States, rental is now paid at the rate of 60 cents for each skin taken. The Governor of Alaska reports 19,000 seals taken on St. Paul and 3,204 on St. George island in 1902. At the contract price, with the rental, the total revenue would be $57,076.60.

In February, 1902, Collector J. W. Ivey issued orders to his deputy at Unalaska closing the port to Canadian vessels presumably engaged in violating the laws in regard to pelagic sealing, and forbidding the sale to them of supplies. His action did not meet with the approval of the Governor for 1902, upon the ground that he was removed from ofﬁce.

Timber.—In a proclamation dated Aug. 20, 1902, President Roosevelt set aside as the Alexander Archipelago, including the islands south of the Alexander Archipelago, including the islands south of the islands in southeastern Alaska known by that name. This new reservation, the ﬁrst in Alaska, embraces Prince of Wales island and the smaller islands seaward thereof, Zarembo, Kupreanof, and Kiuik islands, and Chichagof island and the smaller islands to the seaward thereof. The islands have not been surveyed and their exact area is unknown. They contain, according to Lieut. G. T. Emmons, who made a investigation of the forest resources of Alaska, the most valuable timber in Alaska. The reservation of the islands from settlement, entry, or sale by the Government is not to be construed to deprive any bona fide inhabitant of any valid right he may possess either under the Russian treaty of 1867 or under any act of Congress relating to Alaska. However, much dissatisfaction has been demonstrated, particularly by the miners of Prince of Wales island, and the Governor, in his report for 1902, urges great care in the admin
derstration of this reserve.

Agriculture.—Agricultural experiment stations were maintained during 1901 and 1902 at Seward, Cordova, Unalaska, and at Rampart, in the Yukon valley. In the investigations spe

United States of America (Alaska)
Birches, Fort Gibbon, to Rampart. (See Telegraph.)

The navy has a permanent marine post at Sitka and on Japonski Island, and the Bureau of Equipment and of Yards and Docks has built a wharf and coal sheds. Here also are a shell house and a powder magazine. The Marine-Hospital Service maintains a hospital at Dutch Harbor. In the fiscal year ended June 30, 1901, 11 patients were treated in the hospital and treatment was furnished 59 out-patients; in the year ended June 30, 1902, 12 patients were treated in the hospital, and there were 62 out-patients.

In 1902 the United States Revenue-Cutter Service had 6 boats in service about Alaska. The Bear was used in the transportation of reindeer from Siberia. The Thetis went to the relief of the Portland and Jeanie, which left Scott for Cape Nome in the latter part of April and were caught in the ice-pack and carried into the Arctic Ocean. They carried in their hold several hundred passengers and crews, hundreds of tons of mining machinery and provisions. They were caught in the pack June 4, and June 17 were saved by another Belvidere, the Thetis lying by, 80 miles north of Cape Prince of Wales in the Arctic Ocean. The 2 boats were locked in the ice, almost within speaking distance of each other, in imminent danger of being crushed. The provisions of both gave out and they were forced to break their cargoes. They finally succeeded in breaking out, and on July 1 reached Nome, in good condition.

The Manning was on patrol duty at the Seal Islands, and the Perry and the Rush inspected the canneries. The McCulloch surveyed for a harbor on one of the Aleutian chain west of Dutch Harbor. These vessels also provided transportation for the various court officers on their rounds.

The Lighthouse Service has hitherto been very incomplete. Alaska is not a distinct district of itself and is visited but once a year by the tenders Columbine and Manzanita. At present only 2 lighthouses are in operation, both in southeastern Alaska, and 5 others, 1 in Clarence Strait and another in Unimak pass, are nearing completion.

Telegraph.—Gen. Greeley, Chief Signal-Officer of the Army, announced the completion of the military telegraph-lines between Fort Egbert, Eagle City, and Fort Lisburne, near Valdez. This line brings in direct telegraphic communication with the rest of the world the Copper river country and the Alaskan coast along Prince William Sound. The telegraphic outlet from Fort Egbert is by a signal-corps wire, connecting the Canadian Telegraph line at the international boundary, whence a wire stretches through Dawson to Ashcroft, on the Canadian Pacific Railway. The line from Fort Egbert to Fort Lisburne, 425 miles long, was built by almost inconceivable effort and hardship through an uninhabited country, along rough and almost impassable trails. All wire, insulators, and other line material, as well as food for men and forage for animals, were either dragged hundreds of miles by sleds in midwinter or carried by pack on the backs of men.

Education.—The educational work of Alaska is under the direct supervision of the Rev. Sheldon Jackson, D. D., the United States General Agent for Education for Alaska. The following table shows the number of children attending schools, the race under instruction, and the total enrollment and average monthly attendance for the school year extending from September, 1900, to May, 1901:

| SCHOOL | ENROLLMENT | AVERAGE ATTENDANCE-
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitka:</td>
<td></td>
<td>APRIL</td>
</tr>
<tr>
<td>No. 1 (whites)</td>
<td>48</td>
<td>25</td>
</tr>
<tr>
<td>No. 2 (natives)</td>
<td>131</td>
<td>19</td>
</tr>
<tr>
<td>Juneau No. 2</td>
<td>79</td>
<td>11</td>
</tr>
<tr>
<td>Douglas No. 1 (whites)</td>
<td>56</td>
<td>62</td>
</tr>
<tr>
<td>No. 5 (natives)</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td>Fort Wrangell:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 (whites)</td>
<td>66</td>
<td>33</td>
</tr>
<tr>
<td>No. 2 (natives)</td>
<td>59</td>
<td>11</td>
</tr>
<tr>
<td>Jackson:</td>
<td>58</td>
<td>13</td>
</tr>
<tr>
<td>Haines:</td>
<td>46</td>
<td>7</td>
</tr>
<tr>
<td>Hoornak:</td>
<td>32</td>
<td>7</td>
</tr>
<tr>
<td>Hoonah:</td>
<td>46</td>
<td>7</td>
</tr>
<tr>
<td>Gravina:</td>
<td>65</td>
<td>11</td>
</tr>
<tr>
<td>Kake:</td>
<td>96</td>
<td>16</td>
</tr>
<tr>
<td>Kadiak:</td>
<td>107</td>
<td>45</td>
</tr>
<tr>
<td>Wood Island:</td>
<td>63</td>
<td>30</td>
</tr>
<tr>
<td>Night-school:</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Afton:</td>
<td>63</td>
<td>30</td>
</tr>
<tr>
<td>Unalaska:</td>
<td>43</td>
<td>11</td>
</tr>
<tr>
<td>Cape Prince of Wales:</td>
<td>107</td>
<td>45</td>
</tr>
<tr>
<td>Nome:</td>
<td>64</td>
<td>30</td>
</tr>
<tr>
<td>St. Lawrence River:</td>
<td>53</td>
<td>29</td>
</tr>
<tr>
<td>Fort Clarence:</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Carmel:</td>
<td>95</td>
<td>29</td>
</tr>
<tr>
<td>Eaton Station:</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Ship Bay:</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Sitka Industrial School:</td>
<td>111</td>
<td>45</td>
</tr>
<tr>
<td>Schoolroom No. 1</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Schoolroom No. 2</td>
<td>81</td>
<td>30</td>
</tr>
</tbody>
</table>

The small average attendance was due to two epidemics—measles and smallpox in southeastern Alaska—that caused much sickness and a great many deaths, particularly among the natives.

The appropriation for 1900-01 was $30,000, and was disbursed as follows: Salaries of officials, $4,865; salaries of teachers, $18,392.38; supplies, $4,542.36; fuel and lighting, $889.05; repairs, $521.41; rent, $570; traveling expenses, $546.25; freight, $34.95; balance, $48.60. The expense per capita of enrollment was $17.78.

In addition to the schools established by the United States Bureau, most of the missions to Alaska maintain schools teaching general and industrial branches.

The Sitka Training-School reports as follows: "Pupils—boarding, 150; day, 5; teachers, 15; salaries, $6,940.91; current expenses, $7,995.89; repairs, etc., $907.03; total, $15,930.83. Tuition received, $605.75." The Sitka Hospital reports as follows: "Physician in charge and 2 nurses. More than 1,500 patients have been treated in the hospital and at the ranches, and a large number of successful operations have been performed. Smallpox was epidemic, and physicians, nurses, and teachers acted heroically in caring for the sufferers." Following is the report upon education in Alaska for the year ending June 30, 1902, from the annual statement of the United States Commissioner of Education, embodying the terms and some of the practical workings of the new provision for educational funds, which superseded the regular annual appropriation for public schools in March, 1901: "The bureau has maintained the past year, outside of incorporated towns, 27 public schools, with 33 teachers and an enrollment of 1,741 pupils..." An Act making further provision for a civil government for Alaska, and for other purposes," approved June 6, 1900, section 460, chapter xlv, Part II (31 Stat. L. 330), provides a tax on business and trade in the form of a license at the public schools, but Part V, said act, provision is made whereby 50 per cent. of said license money collected in incor-
porated towns shall be turned over to the treasury of said towns for school purposes. By an
amendment to the above section 203, approved March 3, 1901, it was provided that 50 per cent.
of all license moneys that may hereafter be paid for business carried on outside incorporated
towns in the district of Alaska shall be set aside to be expended, within the discretion and under
the direction of the Secretary of the Interior, for school purposes outside incorporated towns in
said district."

Under the provision of the license law there has been received from March 3, 1901, to June
30, 1902, for education in Alaska, outside of incorporated towns, $35,882.41. This fund was dis-
bursed as follows: Salaries of officials, $6,066.12; salaries of teachers, $17,192.64; supplies, $2,432.64;
fuel and lighting, $905.40; repairs, $204.53; rent, $369.85; traveling expenses, $201.40; freight,
$27.24; balance, $9,404.69.

Expenditure. The appropriations for the intro-
duction of domestic reindeer into Alaska were in 1901 and 1902 $25,000 for each year. The expendi-
tures were, in 1901: Salaries, $10,430.57; supplies from government stock, $2,020.57; the revenue-cutter
Bear, $2,202.57; for 429 deer, $6,617.50; other expenses, $4,017.53; balance, $7.13. In 1902: Sal-
aries, $2,310.05; supplies, $4,495.44; transportation, $2,000, which was paid for in coin instead of barter goods as formerly. When the revenue-cutter Bear reached Barones Korgif
Bay the natives had large herds to sell; but when they learned that the reindeer were carried no flour,
ical, tobacco, or other things for which they were accustomed to trade, never having had any
money in circulation and being unacquainted with its value, they refused to sell, and only 30
deer were secured.

The Nome Conspiracy.—Jan. 6, 1902, the United States Circuit Court of Appeals, in San
Francisco, fined Judge Arthur H. Noyes, of the Second District of Alaska, $1,000 for contempt of
court, and sentenced District-Attorney Joseph K. Wood and his assistant, C. A. A. Frost, to four
months and one year imprisonment respectively. While the case was tried solely on the charge of
contempt, the defendants having refused to an-
swer the mandates of the court, it was the out-
growth of the conspiracy entered into by Judge
Noyes, Alexander McKenzie (who was convicted
in February, 1901), and others in Nome in the
summer of 1900, where, by the appointment of
McKenzie as receiver, they took over all the most
valuable mining-claims in Nome, and refused to restore them or to respect the injunctions of the
higher court. Upon the findings of Attorney-
General Knox, Feb. 23, 1902, after examining the
charges, President Roosevelt dismissed Judge
Noyes from office Feb. 25, 1902.

ARIZONA, a Territory of the United States, organized Feb. 14, 1883; area, 113,030 square miles. The population, according to each decen-
nial census since the organization, was 9,658 in 1870; 40,440 in 1880; 59,020 in 1890; and 122,931
in 1900. Capital, Phoenix.

Government.—The following were the Terri-
torial officers in 1902: Governor, N. O. Murphy, succeeded in July by Alexander O. Brodie; Secre-
tary, Isaac T. Stoddard; Auditor, William E. Nichols; Treasurer, T. W. Pemberton, resigned
and succeeded in August by I. M. Christie; Attorney-
General, C. A. Ainsworth, resigned and suc-
ceded in August by E. W. Wells; Adjutant-Gen-
eral, H. F. Robinson; Superintendent of Educa-
tion, R. L. Long, resigned in July, succeeded by
Nelson G. Layton; Geologist, W. P. Blake; Survey-
OR-GENERAL, Hugh H. Price; Veterinarian, J. C. Norton; Chairman of Livestock Survey, A. C. McQueen; Surgeon-General, M. M. Walker;
Board of Equalization, R. N. Fredericks, Michael
Ohi, M. F. Freeman, resigned and succeeded by
Frank H. Parke; Game Commission, W. L. Pinney, T. S. Bunch, Eugene Allison; Chief Justice of the Supreme Court, Webster Street, succeeded March 18, 1901. The associate justices are: Richard E. Sloan, Fletcher M. Doan, George R. Davis; Clerk, Lloyd Johnston, succeeded by Shelby M. Collum.

The Territorial Legislature meets biennially in January of the odd-numbered years; the session is limited to sixty days. The Council has 12 members and the House 21.

Finance.—The biennial report of the Auditor for 1901-'02 shows that Territorial warrants have been drawn to the amount of $385,521.00, and that the floating indebtedness of the Territory is now $119,859. The total valuation of the taxable property of the Territory is $30,083,177.57, an increase of $229,343 over the valuation of 1901. The rate of taxation, which was 1.17 that year, was reduced in 1902 to 1.1 and a fraction. The counties pay on their indebtedness annual interest aggregating a little more than $65,000.

Books for $30,000 were issued this year for the purpose of making a Territorial exhibit at the St. Louis Exposition. Territorial bonds were redeemed as follows: Insane asylum 7 per cent., $50,000; University, 7 per cent., $7,000. The net indebtedness of the Territory is $1,065,461.90, a decrease of $5,388.17.

Education.—The census reports show the number of illiterates in the Territory to be 27,307. The percentage of persons between ten and fourteen years of age able to read and write was 70.92 in 1890 and 77.79 in 1900. The number of inhabitants that speak no English was 5,388.17.

There are about 23,000 children of school age; the average expenditure for each is $15.11.

A class of 18 was graduated at the Tempe Normal School in June. A girl's dormitory is in process of construction, to cost, with its furnishings, $12,000.

Last winter the State Board of Education of California, upon examination of the quantity and quality of the Tempe Normal School, officially recognized the latter as a par with their own normal schools.

The university graduated 3 women in the literary course and 3 men in the department of mining engineering. All the men in the institutions are taking either this course for a degree or the shorter course in mining and assay.

Banks and Loan Associations.—The report of the Bank Examiner at the close of the year shows that there were 16 incorporated Territorial banks, 6 building and loan associations organized under the laws of the Territory, and 7 national banks. Some of the Territorial banks since the matter for the report was gathered have been converted into national banks. Great gains are shown in the business of both the Territorial banks and the building and loan associations.

The resources of the former have increased within a year from $3,018,806 to $4,675,032.33. The operations of the building and loan associations have been increased from $588,369.45 to $701,472.09. The increase of deposits in banks, both Territorial and national, have been for the last two years: for 1900, $40,025,886.97; for 1902, $7,015,087.98. Of the total increase of $780,607.12, $632,390.07 has been in Territorial banks and $157,217.05 in national banks.

The railroad tracks aggregating 83.04 miles were laid in the Territory. The Santa Féd, Prescott and Phoenix has been improved by the construction of what is known as the Hell Cañon Cut-Off. It is shorter than the old line by 3 miles; the grade is 14 per cent., against 3 per cent. on the old line. The most notable feature of the Hell Cañon Cut-Off is that of the Hell Cañon viaduct, crossing a deep cañon, which, to the time this improvement was conceived, was considered practically impassable. The viaduct is a fine steel structure, 643 feet in length, and crosses the cañon at an elevation of 190 feet.

The total railroad and Pullman car valuations this year amounted to $4,998,434.32. This is an increase over the valuation last year of $175,405.41, which, however, did not include the El Paso and Southwestern.

Corrections.—About 300 convicts are confined in the Territorial prison at Yuma. No satisfactory solution of the convict labor problem has yet been found.

A reform school for boys and girls has been built near Benson, with grounds comprising 40 acres. It is of tuff, has 20 rooms, and cost $25,000. It will be ready for occupancy after the next session of the Legislature.

Irrigation.—The greater part of the irrigated land of the Territory is in the Salt river valley. The total expanse of the fully irrigated land in Arizona is 185,390 acres. In the past ten years 545 miles of canals have been constructed, at a cost of $1,500,000. Artesian water is used to a limited extent in the San Pedro and Gila valleys, near Benson and Safford. A new corporation has acquired the Peoria Canal property, near Gila Bend, on which $1,000,000 has been spent. The dam is to be rebuilt and about 80,000 acres of good land reclaimed. The Government has spent $13,000 for new ditches on the Pima Indian reservation.

Around Yuma the main interest concerns the Imperial Canal, which heads near by, on the California side of Colorado river. The new Rockland Canal, north of Yuma, will irrigate 10,000 acres. About 100 horse-power will be developed on the Rudy Canal, west of Yuma, to be used in pumping water to higher line lands.

An organization company, with a capital of $1,000,000, has been formed with the object of securing the construction of the proposed Tonto creek storage dam on Salt river, near Phoeniz, under the general irrigation act of Congress. The dam was to be 210 feet high. The total investment is estimated at $2,000,000, and it is to impound 840,000 acre feet of water. The engineers are considering plans for building the dam 40 feet higher, impounding 1,400,000 acre feet of water.

The unique feature of the whole enterprise is the scheme for development of electric power. A canal will be dug, heading at the upper end of the reservoir site, capable of carrying the minimum flow of the river. This force will be utilized in generating electric power to be used in making the necessary cement from materials close at hand, for running all the huge construction machinery that will be used in the building of the dam and in the operation of the head-gates, and later, when all is finished, it will be cabled to the valley and employed in raising the underground supply.

Products and Industries.—Arizona has 314 manufacturing establishments with a capital of $4,229,450.84, and for 1902, $7,015,087.98. Of the total increase of $780,607.12, $632,390.07 has been in Territorial banks and $157,217.05 in national banks.

In 1901, 1902 includes operating 83.04 miles of railroad.
the copper-mines; Arizona stands third in the production of copper, only Michigan and Montana standing above it. Since the great decline in the value of silver and the shutting down of the Tombstone mines, the production of the white metal in the Territory has decreased, until now it represents only about 6 per cent. of the total mineral output, even the gold production being three times as great. As a result of this decline, it appears that the gold product in 1901 amounted to $4,083,000 in value, and the silver to $1,087,440. The greatest mining center of the Territory is Bisbee, near the Mexican line.

A scheme has been formed to mine or quarry the ice in the caves near Flagstaff. The main, or best-known ice-cave, lies at the head of Clark's valley, 17 miles southwest of Flagstaff.

The culture of date-palms has been undertaken at the experiment station south of Tempe. Trees imported two years ago are doing well, and another load from Egypt was received at the station this year.

Lands.—The court that had the disposition of private land claims passed upon 18. The total area authorized was 11,326,108.04 acres; the total confirmed, 121,187.50; the total rejected, 11,204.920.54. Among those rejected was the famous Peralta grant, amounting to 10,407,466.18 acres.

The United States Geological Survey is examining the forest reserves. The total area of the San Francisco mountain reserve is 785,360 acres. The Black Rock reserve comprises 1,826,380 acres.

Political.—The candidates for the office of delegate in Congress at the November election were Robert E. Morrison, Republican, and J. F. Wilson, Democrat. Wilson was elected by a vote of 9,170 to 9,259 for Morrison.

ARKANSAS, a Southern State, admitted to the Union June 15, 1836; area, 53,850 square miles. The population, according to each decennial census since admission, was 97,774 in 1840; 200,987 in 1850; 435,450 in 1860; 484,471 in 1870; 502,525 in 1880; 1,128,179 in 1890; and 1,311,564 in 1900. Capital, Little Rock.

The following were the State officers in 1902: Governor, Jefferson Davis; Secretary of State, John W. Crockett; Auditor, T. C. Monroe; Treasurer, R. C. Tipton; Attorney-General, Mammoth Murray; Comptroller, J. W. Colquitt; Superintendent of Education, J. J. Doyme, succeeded by J. H. Hinemon; Commissioner of Mines, Manufactures, and Agriculture, Frank Hill, succeeded by W. W. Bradford; Railroad Commissioners, Jeremiah G. Wallace, Felix M. Hanley, Abner Gaines; Adjutant-General, Charles Jacobson; Geologist, John C. Branner; Chief Justice of the Supreme Court, Henry G. Bunn; Associate Justices, Simon P. Hughes, Carroll D. Wood, Burrill B. Battle, James E. Riddle; Clerk, P. D. English. All are Democrats.

State officers are elected on the first Monday in September in the even-numbered years, and serve two years. The Legislature meets biennially the second Monday in January in the odd-numbered years. The session is limited to sixty days.

Finances.—The report of the Auditor for the two years ending Sept. 30, 1902, says: "The public debt of the State has been reduced to a minimum, and will very soon be wiped out entirely, with the exception of the funding bonds held by the permanent school fund, amounting to $1,118,500. Exclusive of these bonds, the present indebtedness of the State is $57,200 of the funding bonds of 1891, of which sum $102,500 is in the permanent endowment fund of the University of Arkansas, and the remainder, 35 bonds of $1,000 each, is held by private individuals. These bonds are being gradually retired. The act approved May 3, 1901, calling in for redemption the old outstanding bonds, provided that all such bonds not called within six months from the date of call made by the Treasurer should be forever barred, null and void. Of the 22 bonds shown by the records to be outstanding, only 7 were presented to the Treasurer. The Auditor estimates the ordinary expenses of the State government for the next two years at about $1,000,000. The total value of property in the State, as assessed for taxation, is about $224,000,000.

Education.—From the census reports on illiteracy in the State it appears that Arkansas has 190,665 illiterates. The percentage of persons from ten to fourteen years of age who were reported able to read and write was 77.80 in 1890 and 83.80 in 1900. Eighty of the States and Territories were below Arkansas in the list in 1890, and nine in 1900.

The school population this year was 495,368; the State apportionment of funds was $539,351.12, giving a per capita of $1.06. The monthly salary paid to male teachers is given as averaging $38.50; to female, $36.50.

The State University graduated a class of 22, June 19. In the medical department 11 were graduated in April. At the opening in September about 500 students were enrolled. The university ships were destroyed by fire in the autumn, at a loss variously estimated at $20,000 to $30,000, without insurance.

Charities and Corrections.—A report of the Lunatic Asylum, submitted in July, covers the period from Dec. 1, 1900, to July 1, 1902. The number Dec. 1, 1900, was 62; admitted, 235; discharged, 213, of whom 88 had recovered, 67 improved, 10 unimproved, 2 eloped, 2 were found not to be insane, and 61 died, leaving 644 remaining. The average cost of maintenance per capita for a month was $4.49, officers and employees included.

At the School for the Blind there were 169 inmates March 31. The cost of maintenance for one month was $4.40 per capita, including teachers and employees, 235 in all. Four students were graduated in June.

There were 298 pupils remaining at the Deaf-Mute Institute April 30. The average for sus-tenance for one month when the whole number, including employees, was 294, was $4.12. New buildings have been completed for both the Blind and Deaf-Mute Institutes.

At a meeting of the Penitentiary Board in November it was decided to buy a plantation in Lincoln County for a convict farm. It comprises about 11,000 acres, of which 2,400 are in cultivation. It is 28 miles below Pine Bluff, at a bend of Arkansas river, and has 7 miles of river front. The price was $140,000. The Governor was the only member of the board opposed to the purchase; he announced that he would send a message to the Legislature advising that it be canceled.

Militia.—In a report to the adjutant-general of the United States army in June it was stated: "1,604 militia have been regularly organized, uniformed, and in actual service of the State during the year ending June 30, 1902; that the average attendance at drills and parades during the year was, to the best of our knowledge and belief, on an average semimonthly for the 25 companies of infantry, monthly for the 2 companies of cavalry." The Government allotment to the State for militia supplies was $42,000. In Novem-
The capital in grist and flour mills in 1900 was 
$1,183,052; the value of the product, $3,708,109.
The number of farms in the State in 1900 was 
178,094; the value, $1,35,182,170; total value of 
farm property, $1,31,416,001; number engaged in 
agriculture, 340,904; farm-products, $79,049,490.
The estimate of the average yield of corn to 
the acre in 1902 was 20.2; in 1901 it was 8.1; the 
mean of the average of the past ten years was 
17.3.
The cotton-crop of 1902—02, according to Sec- 
retary Hester's report, was 820,000 bales, against 
762,000 the year next preceding. The consump- 
tion in mills of the State was 2,463 bales. The 
whole number of spindles was 14,588; number of 
looms, 150; of mills, 4.
The cotton-seed product was 190,015 tons; the 
cost, $2,245,710; the products, $3,188,512.
The number of commercial failures in the State 
the first half of the year was given as 162, with 
liabilities of $78,389. In the corresponding 
months of 1901 there were 116, with liabilities of 
$81,009.
Early in the year measures were taken to col- 
clect relief for the sufferers by the drought in the 
northern part of the State in 1901.

Court Decisions.—The Supreme Court has sus- 
tained the act of the Legislature of 1901 author- 
izing cities of the first class to pass vehicle tax 
ordinances. The tax was resisted on the ground 
that it was not constitutional and void “in this, 
that it is either an attempt by the Legislature to 
authorize said cities to impose or levy a direct 
tax upon wheeled vehicles as property, in excess of 
the amount limited by the Constitution and in 
violation of its provisions relating to taxation, or is 
an attempt to create outside of the common right 
to use vehicles a privilege and therupon to tax the 
same.”

The act “to suppress the illegal sale of liquors, 
and to destroy the same when found in prohibit- 
ed districts” was attacked, but was pronounced 
constitutional by the Supreme Court.

Hot Springs.—In the annual report of the 
Secretary of the Interior much attention is given 
to the Hot Springs reservation. It says in part 
“The success of the Hot Springs as a health re- 
sort since the assumption of supervisory control 
by the Government in 1878 has been remarkable 
The increase in patronage has been constant year 
by year. During this period of twenty-four years 
The superintendent estimates that a total of 550, 
000 people have visited Hot Springs for health and 
recreation; the patronage of the year just ended 
was 66,000.

The reservations, including the mountainous 
districts known as North mountain, Sugar Loaf 
mountain, and West mountain, together with 
Hot Springs mountain, were forever reserved from 
sale and dedicated to public use as parks. The 
reservations, with Whittington Avenue reserve, 
comprise in all 911.63 acres.

Little Rock—The local chapter of the Daugh- 
ters of the Confederacy last winter entered an 
emphatic protest against any presentation of the 
play Uncle Tom's Cabin in the capital city.

Pardons.—The Governor, having been in- 
duced to grant a pardon for remission of a fine by a 
petition on which, as was afterward found, about 
100 names were forged, including those of the 
sheriff, the clerk, and the prosecuting attorney, 
issued a proclamation directing that in future 
“the applicant or his attorney shall deposit peti- 
tion for pardon with the circuit clerk of his 
county fifteen days, subject to the inspection of the 
general public.

The Governor gained considerable notoriety in
May by granting a pardon to a negro convict in the Penitentiary on condition that he should become a resident of Massachusetts within thirty days. The negro had been convicted in 1860 of assault with intent to kill, and sentenced to three years in the prison.

LAWLESSNESS.—Lynchings have been reported this year at or near Foreman, Tomberlin, Magnolia, Stephens, and Forest City. All the negroes lynched were accused of assaults upon women or girls; one, who murdered his victim, was burned at the stake.

In October a company of the State militia was called out to aid the sheriff to keep order at El Dorado, where great excitement had been caused by a tragic affair in which 3 men were killed and 3 wounded, 1 fatally. The fight was the culmination of a feud arising from the shooting of a man by an officer whom he attacked for having arrested him.

Political.—The Democratic primaries for the choice of candidates for United States Senator, members of Congress, and State and local officials were held March 29. The candidates for the offices at large were ex-Gov. James P. Clarke and Senator James K. Jones; for Governor, Jefferson Davis and E. W. Rector. Clarke and Davis were chosen by large majorities, with 26,227 and 26,298, respectively. The resolutions recognized the Kansas City platform "as the declaration of the national Democracy upon national questions until supplanted by action at the next national convention; denounced the trusts and the Dingley tariff; favored the building of the Nicaragua Canal by the Government; an appropriation for the Louisiana Purchase Exposition; laws for protection of labor; a new State House; enlargement of the powers of the Railroad Commission and of the Interstate Commerce Commission; the establishment of a reform school; and better provision for the insane. Following is the ticket: For United States Senator, James P. Clarke; Governor, Jefferson Davis; Secretary of State, J. W. Crockett; Attorney-General, George W. Murphy; State Treasurer, H. C. Tipton; Superintendent of Public Instruction, J. H. Hinemon; Auditor, T. C. Monroe; Associate Justices Supreme Court, B. B. Banfield and C. E. Conley; Railroad Commissioners, J. W. Phillips, B. B. Huddins, J. E. Hampton; Commissioner of Mines, Manufactures, and Agriculture, H. T. Bradford. They were designated into two factions, known as the "regulars" and the "insurgents." Both held conventions at Little Rock, June 26. The "regulars" nominated Harry H. Myers for Governor. Other nominations were: For Secretary of State, Charles T. Duke; Auditor, John L. Smith; Treasurer, Joseph Berger; Attorney-General, Charles F. Cole; Land Commissioner, W. H. Conine; Superintendent of Public Instruction, Robert L. Floyd; Commissioner of Mines, Manufactures, and Agriculture, F. S. Baker; Associate Justice of the Supreme Court, Charles C. Watera. The resolutions condemned the national policy of the party at some length. On State affairs they favored an exhibit at St. Louis, equal taxation, and salaries for justices of the peace and prosecuting attorneys. The Democratic party was condemned for its failure to suppress trusts, to invite industries into the State by providing for them reasonable exemp- tion from taxation. The resolutions condemned the work upon the new Statehouse, after its site had been chosen, the foundation laid, and thousands of dollars of the public money laid out thereon; for its partisan man- agement of the State charitable boards in restricting their membership wholly to the Democratic party; for its partisanship applied even to the public schools, by which none but Democrats need aspire to the responsible position of school director; for its failure to provide a railroad com- mission which affords any protection to the peo- ple of the State; for failure to establish a reformatory school, to provide nearly an institute insane outside the county jails, and to pass an efficient fel- low-servant law; for "its vacillating and corrupt management of the State Penitentiary, by which monopolies are fostered, first, by entering into contracts for hiring out convicts at prices totally inadequate, and then seeking to dishonestly re- pudiating the contracts; and for its repeated re- fusal to change the law so that the minority party might have one judge and one clerk of its choice at each voting precinct in the State, thereby insuring an honest return of all the votes cast." Payment of the poll-tax was made a prerequisite to voting in the Republican primaries.

The "insurgents" nominated Charles D. Greaves for Governor. No nominations were made for other offices. The most distinctive among the resolutions: "The control of these State organizations has been in the hands of a member of the national Republican Committee for the past success in local or other elections in this State, but for the sole control of federal patronage and the aggravation of the few in control. We earnestly request that the President and his Cabinet officers refuse to recognize such organizations, which have so unworthily represented the Republican party of this State."

The Prohibitionists assembled in convention at Little Rock, June 25, nominated George H. Kimball for Governor, and adopted a platform in accordance with their principles. The concluding declaration was: "We declare our belief that existing conditions in other political parties in this State make it impossible that self-respecting citizens, and particularly Christian men, should continue to support them and the men and measures for which they ask the votes of the people."

The Ex-Slaves Association nominated Rev. R. D. Campbell, their president, for Governor; but the nomination was contested by the State ballot. The State election, held Nov. 1, resulted in the success of the Democratic candidates. The vote for Governor stood: Jefferson Davis, Demo- crats, 77,354; H. H. Myers, Republican, 29,256; C. D. Greaves, Independent, 8,345; George H. Kimball, Prohibitionist, 4,799.

A proposed amendment to the Constitution empowering the Legislature to place its members on a salary instead of the per diem system now in vogue was carried by a majority of 1,616 votes. The law now in effect gives the members of the Legislature $2 per day and their railroad mileage. The constitutional limit of the Legislature is sixty days, but for many years past the sessions have been prolonged to double that time. The question of license was voted upon, about 46 of the 75 counties giving a majority against. The State Senate will be entirely Democratic; the House will have 2 Republicans.
Lieutenant-Governor, Jacob H. Neff; Secretary of State, Charles F. Curry; Comptroller, Edward P. Colgan; Treasurer, Truman Reeves; Attorney-General, William H. Beldin; Governor, Hiram J. Wright; Superintendent of Public Instruction, Thomas J. Kirk; Superintendent of State Printing-Office, Alfred J. Johnston; Adjutant-General, W. H. Scovil; Insurance Commissioner, E. Myron Wolf; Commissioner of Labor, F. V. Meyers; Railroad Commissioners, E. B. Edson, C. S. Laumeister, N. Blackstock; Board of Equalization, Alexander Brown, R. H. Beamer, Thomas O. Toland, Lewis H. Brown; Commissioners of the Supreme Court, Wheaton A. Gray, James A. Cooper, N. P. Chipman, George H. Smith, and John Haynes; Building and Loan Commissioner, Frank H. Gould; Bank Commissioners, John Markley, A. W. Barrett, B. D. Murphy; Chief Justice of the Supreme Court, William H. Beatty; Associate Justices, T. B. McFarland, C. H. Garoutte, R. C. Harrison, Walter Van Dyke, F. W. Henshaw, Jackson Temple (who died Dec. 23); Clerk, George W. Root.

The State officers hold office four years and are elected in November of the even-numbered years between presidential elections. The Legislature meets biennially in January of odd-numbered years, and the session is limited to sixty days.

Valuations.—The assessed valuations of property in the State, as given in the Comptroller's official report for this year, amount to $1,296,750,465, made up as follows: Value of real estate, $600,974,783; improvements, $284,226,533; personal property, $200,164,171; money and solvent credits, $30,000,000; railroad issues, $12,907,003. The rate of State taxation is .382 cents on each $100 of valuation.

The original assessed value of mortgages is $1,415,521,044 and the assessed value of university and other State mortgages is $1,424,513. The total indebtedness of the counties of the State is $3,175,942,75, of which $3,085,900 is funded and $87,042,75 is transient or floating debt.

The aggregate valuation shows a gain of $49,044,662 over the preceding year and $18,081,339 of this increase is represented in the enhanced value of industrial and commercial improvements. The next greatest gain is in the assessed value of railroads, which is $15,691,118 greater than for 1901. Money and solvent credits show an increase of $40,000,000 and railroad issues are reduced $8,820,000 less in amount than for the previous year. The indebtedness of the counties was reduced $157,290,25 during the year, while the total funded debts of the counties was decreased by $135,500. Of the 57 counties in the State, 16 are free of debt, 11 have debts under $20,000 and only 11 owe in excess of $100,000. The largest single county debt is $410,335, owed by Sacramento County, and the smallest is $2,000, owed by Del Norte, and the same amount is owing by Ventura. The total outstanding debt of San Francisco city and county is only $290,000. Although the outstanding financial obligations of the counties show substantial reductions, there has been no backwardness in public improvements.

Education.—The State has two great universities, the Leland Stanford Junior University, at Palo Alto, Santa Clara County, the wealthiest institution of learning on the continent, and the University of California, at Berkeley, Alameda County. This year the magnificent memorial chapel at the Stanford University was completed, at an expense of over $300,000. California has built or got under way institutions to match the other college buildings in the great quadrangle, and is

considered one of the most ornate pieces of architecture, as well as one of the handsomest houses of worship, on the Pacific coast. It is presided over by the Rt. Rev. Dr. F. R. Rail, M.A., D.D., Bishop of California and former Bishop of New York city, and the regular Sunday and weekly services are undenominational. The attendance at the university was more than 1,500 during the year, about twice that number have been in attendance at the University of California at Berkeley. Among the other institutions may be mentioned California College (Baptist), at Highland Park, Oakland; University of the Pacific (Methodist), at San José; Mills Seminary, at Seminary Park, Alameda County; Wilmerding School and the Cogwell Polytechnic School, both at San Francisco; Santa Clara College, at Santa Clara. The elegant country mansion of the late James C. Flood, with extensive grounds and conservatories, at Menlo Park, San Mateo County; the Mark Hopkins Institute of Art, in San Francisco; the recently completed affiliated colleges near Golden Gate Park, San Francisco, and the Lick Observatory on Mount Hamilton, near San José, are all part of the property of and under control of the University of California.

Mining.—Although mining was less prominent in the industrial activities of the State during the last decade, the annual output of precious metals and minerals is still very large. In 1902 the production of gold amounted to $17,124,841, and since the discovery of the metal at Sutter's Mill in January, 1849, the State has contributed more than $1,500,000,000 to the golden wealth of the world. For value of output, California stands second among the States of the Union. The commercial value of the precious metals and minerals in 1902 is recorded at $480,793. Much activity in prospecting for copper is evident in Siskiyou, Trinity, Fresno, Santa Clara, San Luis Obispo, San Bernardino, and other counties. A discovery of a large and rich body of copper ore was recently reported from the neighborhood of the Almaden quicksilver-mine in Santa Clara County, and although the development now in progress has not yet been advanced to fully determine the value of the deposit, it is known to be very extensive and of a high grade. The copper-producing era in California began to assume large proportions and important dimensions in 1873, when the output was 13,638,828 pounds, valued at $1,540,666. No satisfactory estimates can be found at the present writing of the volume and value of the copper production of 1902. The operations of the chief producer, the Mountain Copper Company, in Shasta County, have been twice disturbed during the year, once by fire and lately by labor troubles. The output of the Butte Hill mine has been large and has made its mark in helping to swell the production of the year, which those best informed assert to be fully $7,000,000 in value. California is the only State that produces asphalt, and the output for 1902 is 26,000 tons, valued at $385,000. There are about 50 varieties of metals and minerals in the State of commercial value, all of which are being profitably worked.

Fuel Oil.—Crude oil is coming rapidly to the front as a leading product of the State, and it is now being utilized for steam generation in every section where transportation facilities permit its being laid down profitably. The record for 1902 shows unprecedented progress. The number of producing wells is 2,152, and the production for the year was 13,686,089 barrels. Oil wells of transportation facilities, 424 producing wells were capped and not being pumped at the close of the year. The depth of producing wells ranges from 200 feet at Summerville, to 5,584 feet at Fullerton. The Southern Pacific Railroad Company has
504 locomotives consuming 600 barrels each a month. The Santa Fé Railroad Company is also converting its 1 locomotives to oil burners. In 1902 290 engines operated between San Francisco and Winslow, Arizona, were oil-comsumers. Two years ago there was not a streamer burning oil; now there are 112 using it for fuel. The Standard Oil Company has its new pipe-line from the southern oil-fields near Bakersfield to Point Richmond on the eastern shore of San Francisco Bay, nearly completed, and it will be in operation early in 1903.

Banking.—The State has 321 banks, of which 191 are commercial, 61 savings, 49 national, and 20 private. All but the national banks are under the jurisdiction of the State Board of Bank Commissioners, which calls for detailed reports at irregular intervals two or three times each year. The aggregate resources of the banks in the State on Aug. 23, 1902, the date of the last official report, was $31,176,397. This represents a gain of $5,754,716.21 in twelve months, in comparison with the official statement of Aug. 17, 1901. Classified, the banking resources include the following items in the proportion of the year: real estate, $15,540,532.12; stocks, bonds, and warrants $112,122,208.85; loans on real estate, $116,489,806.06; loans on stocks, bonds, and warrants, $36,937,218.43; total loans; $334,129,136.64; other securities $14,512,862.97; loans on personal security, $88,746,022.52; money on hand, $33,604,414.34; due from banks and bankers, $52,415,856.22; other assets $7,737,421.08; and the total capital of all the banks in the State amounts to $52,099,044.38, and the total due depositors in all banks is $368,594,760.00. In San Francisco there are 9 savings-banks, and the deposits aggregate $138,193,443.38. The current rate of interest for loans on real-estate security is 6 to 6 per cent. per annum, the banks paying the mortgage taxes. The annual allowance of interest on deposits by the savings-banks is 3\% to 3\% per cent. The resources of the 19 commercial banks in San Francisco amount to $104,237,334.30, and the total due depositors aggregates $65,798,854.87. There was a large increase in the business of the State in the last four months of the year. The month of December, 1902, showed the heaviest clearings for any one month in the history of the State. The total being $138,571,697.04. The deposits in all the banks of the State are $248,222 per capita of the population.

Agriculture.—The farming interests of the State had a very prosperous year, and remunerative returns were made almost continuously. The wheat-crop was not up to expectations in quantity, but the quality was excellent and the prices obtained were the highest in four years next preceding. The total yield was 21,073,366 bushels. As during the two previous years, the shortage in production was in the southern portion of the State, the yield in central and northern California being bountiful. The crop of corn was 2,141,500,000 bushels. The crop of barley was a little over 19,000,000 bushels, but the higher prices brought the value up to $10,000,000. The production of cotton was light, the yield and former being about 1,000,000 bushels and of the latter something over 2,000,000 bushels. Ewe is grown very sparingly, and 350,000 sheep is a liberal estimate of the total. The wool was the highest in many years, choice lot selling at $1.15 a cental. The crop of beans was larger than usual, the total being about 115,900,000 pounds, of which 40,000,000 pounds were marketable. Hop-growers had one of the best years in the history of the industry. The production was bountiful, the total being 55,000 bales or about 10,600,000 pounds, the price ranging from 20 to 26 cents a pound.

The output of beet-sugar for the year was variously estimated at 80,000 to 85,000 short tons, 3 of the 8 refineries not furnishing statistics of their production. The crop of beets was large, and the yield of sugar ranged from 213 to 258 pounds to each ton of beets. The laboratory percentage of sugar in beets varied from 14.18 to 16.43 per cent., according to locality.

The best estimates on the production of honey place the year's crop at 3,750,000 pounds. This is below expectations, but the scarcity of spring rains in the blooming time throughout southern California caused the deficiency.

The wool-clips was about 18,000,000 pounds. This is a fair average for the past few years, and the prices generally realized by growers have been remunerative.

The rainfall at San Francisco in the season of 1901-02 was 18.98 inches, which is considerably above the preceding season. Northward it was greater, being 51.96 inches at Eureka, in Humboldt County; and southward there was a gradual decrease until at San Diego the 9.95. (See climatic table.)

Horticulture.—The yield of nearly all fruits was in excess of that of the preceding year, and generally the prices were more satisfactory to growers. Shipments of dried fruits to the Eastern States aggregated 7,141 car-loads, of which 2,011 cars were pears, 1,777 peaches, 1,033 grapes, 1,478 plums and prunes, 222 apricots, 245 cherries, and the capital of all the ships from the San Francisco market amounted to 25,099,000. The New York city took 1,475 car-loads, Chicago 1,301, Boston 745, Minneapolis 419, Philadelphia 295, and Pittsburg 278. These were the leading centers of distribution, although 10 other cities took over 100 car-loads each, and as many more over 50 car-loads each. The shipments of the year were the largest in the history of the business. The shipments of oranges and lemons for the citrus season, which begins Nov. 1, aggregated 10,180 car-loads of 350 boxes each. Of this total, 1,836 car-loads were lemons.

The prune-crop was a fair average, the estimated yield being 150,000,000 pounds. The export demand was steady, but prices were rather low until the end of December, when there was a sharp advance. The total being 8,800,000 pounds. The walnut-crop was larger than usual, and the quality was excellent, the total yield being 17,000,000 pounds. The crop of almonds was also large, the total being 5,800,000 pounds.

The viticultural interests had a very favorable season and the yield of wine, 40,000,000 gallons, was the largest for several years. Of this total, 26,000,000 gallons were dry wines and 14,000,000 gallons sweet wine. The wine grape growers capitalized the highest prices paid in many years, in some sections as high as $34 a ton being paid at the wineries for some fine varieties. In the season 350,000 tons of grapes were crushed for wine-making. The best trade estimates place the brandy production at 5,000,000 gallons.

The pack of canned fruits is slightly less than for the previous year; the total being 2,250,000 cases, each case containing 2 dozen 21-pound cans.

Dairying.—This industry has made rapid improvement during the past few years, and while the annual output is still far short of the requirements, the production of the last year shows a large increase. The coast counties—Humboldt, Marin, Sonoma, and San Mateo—are still in the
lead as producers, but the greatest recent growth is now in Santa Clara, Fresno, Stanislaus, San Joaquin, Kings, Merced, and other of the interior counties. San Francisco Bay leads in the production of cheese, the best in the State being produced in the southern part of the county. As in all other States, the business of butter-making is being transferred to factories. In 1897 California produced 10,866,646 pounds of butter by creamery process and 13,256,549 by dairy methods. In 1892 21,393,021 pounds of creamery butter were produced, while the dairy-product was only 9,935,741 pounds. The dairy-product of the year 1892 was valued at $3,128,762 pounds of butter, $474,072; value of 1,053,441 pounds of cheese, $702,371; value of 146,680 cases of condensed milk and cream, $564,758; value of milk and cream consumed, $6,238,555; value of calves from dairy cattle, $1,568,564; milk produced on dairies and creameries, $1,710,040. A dairy-school is connected with the State University at Berkeley, where instruction is given in modern and scientific methods.

Manufactures.—The natural resources of California are numerous and extensive, but the high cost of fuel has always been a barrier to the development of industries. The rapid increase in the production of crude oil and the installation of electric-power plants have so cheapened the generation of power that in the past two years the increased output of manufactured commodities has been enormous. Two years ago the annual output for the State was $392,874,781, as shown by the census. Statistics based on advice from various parts of the State show that the production of 1892 was more than $400,000,000, San Francisco's share being $150,000,000. The output of Los Angeles is about $30,000,000 a year; Oakland, $11,500,000; San José, $8,000,000; Sacramento, $11,000,000; and Stockton, $6,000,000. There are a dozen smaller cities which produce about $1,000,000 worth of commodities each year. San Francisco's factories embrace almost every line of mechanical endeavor, and the bringing of electric power, generated by the rushing streams of the Sierra Nevada mountains, enabled more small factories to begin operations in 1892 than every other year combined.

Electric Power.—With the single exception of New York, where electric power generated at Niagara Falls is transmitted to many towns, no State of the Union possesses so large a transmission facilities as California. The principal electric-power plants now in operation in the State are the Bay Counties Power Company, which has absorbed several smaller plants in the north central counties, producing in the aggregate 30,000 horse-power; the Standard Electric, producing 15,535 horse-power; the San Joaquin Electric, producing 2,520 horse-power; the Truckee River Company, producing 2,800 horse-power; the Power Development Company of Bakersfield, producing 2,500 horse-power; the Mount Whitney Company, producing 1,000 horse-power; and the Butte County Electric Company, producing 1,500 horse-power.

The long-distance record at present for any continuous length of time was made in September, 1902, when the Standard Company's lines from Oakland to Stockton, via Mission San José, were harnessed to the bay counties lines, making a continuous line of 229 miles. In October, 1902, San José and Redwood City were also connected, and the total distance was made 240 miles. This is the world's record for distance. Electrical engineers who have carefully investigated the waste of the Sierra Nevada mountains estimate that on the western slope alone at least 1,000,000 horse-power is available within reach of San Francisco. The estimate is based on a transmission distance of only 200 miles.

Seven amendments to the Constitution of the State were adopted by vote, Nov. 4, 1902. These amendments, in brief, are described as follow:

1. To permit the Legislature to levy a special tax for the support of high schools and technical schools.
2. To permit the Legislature to divide the State into counties and county, municipality, school district, reclamation or irrigation district.
3. To exempt from taxation all bonds issued by the State of California, every county, municipality, school district, or reclamation or irrigation district.
4. To permit cities to adopt their charters by a majority of the vote cast, by city election, to reduce the number of votes necessary to amend a charter from three-fifths of the electors to a majority voting thereon at any election, and to permit cities, by a petition of 1,500, or the number, to propose amendments to city charters.
5. Making eight hours a day's work on public work, whether done under public employment or by contract.
6. To permit the use of voting-machines in localities designated by the Legislature and the local authorities.
7. To permit the Legislature to appropriate money for the construction of State highways.

COLORADO, a Western State, admitted to the Union, Aug. 1, 1876; area, 105,836 square miles. The population was 184,287 in 1880; 412,198 in 1890; and 539,700 in 1900. Capital, Denver.

Government.—The following were the State officers in 1902: Governor, James B. Orman, Democrat; Lieutenant-Governor, David C. Coates, Populist; Secretary of State, David A. Mills, Populist; Treasurer, J. N. Chipley, Silver Republican; Auditor, Charles W. Crouser, Democrat; Adjutant-General, G. F. Coughlin, Populist; Attorney-General, Charles C. Post, Democrat; Superintendent of Public Instruction, Helen L. Grenfell, Democrat; Chief Justice of the Supreme Court, John Campbell, Republican; Associate Justices, Robert W. Steele and William H. Gabbert; Clerk, H. G. Clark.

The State officers are elected in even-numbered years, the term beginning in January of odd-numbered years. The Legislature holds biennial sessions, beginning in January of odd-numbered years, limited to ninety days.

Agriculture.—Colorado is rapidly developing its agriculture and stock resources. The total value of farm property in 1900, as returned to the Census Bureau, was $161,000,000. The value of farm machinery was $4,784,765, and of live stock $49,964,311. For the year 1899, the last of the decade, the value of the products from crop and range was $33,000,000, which exceeded the products of the year 1890 by $20,000,000, and was a gain of 151.6 per cent. in ten years. The percentage of income upon investment in Colorado farms for 1899 was 16 per cent.

Beet-Sugar Industry.—In the great agricultural contest held in the West in 1901 Colorado led in the beet-sugar industry, winning the first prize in the contest against California and Utah. The results made the line of Colorado's capacity as a sugar State. No place in the world has produced so large a yield of rich beets to the acre as was raised in Colorado. The largest yield of beets reported was 79,624 pounds,
Loveland is the largest reservoir in these two valleys. It cost $125,000. Its ownership is divided into 300 shares, which are now worth $1,000 each, making the value of the reservoir more than twice its original cost. The largest reservoir in Colorado is at Twin Lakes, on the Arkansas, it has a surface area of 2,000 acres and a capacity of 89,060 acre-feet. The value of this reservoir to the farmers along the Arkansas river is greatly increased because this has proved one of the most favored regions for growing sugar-beets. Another important reservoir on the Arkansas river is the Koen, near Great Bend, Kan. When completed it will have an area of more than 60 square miles and will hold when full 496,875 acre-feet of water, enough to cover 250,000 acres to a depth of 2 feet.

The tenth National Irrigation Congress opened at Colorado Springs Oct. 6, 1902. The matter of a proposed merger of the National Irrigation Congress with the Trans-Mississippi Congress came up early in the session, and it was decided to postpone the vote on the consolidation for one year. Chief-Hydrographer Newell, of the United States Geological Survey, and Edward H. of the Department of Agriculture, addressed the convention. Mr. Newell in a short speech rehearsed the history of the irrigation law and told how the carrying out of its provisions was left entirely in the hands of the Secretary of the Interior. He then narrated how the provisions could be carried out to the effect that at the beginning one or two extensive schemes of reservoirs and canals would be selected for immediate building. The selection of these would depend largely on how much of the entire cost the settlers under these improvements would be able in time to refund to the treasury.

The bulletin of the Census Bureau for 1902 says that in the last decade Colorado has advanced to the front rank of irrigated States, surpassing California in extent of land under irrigation, but remaining second in number of irrigators and value of irrigated crops. The total number of acres of irrigated crops in Colorado is 2,290,840, and there are 110,431 acres of irrigated pasture land. The present value of irrigated land in the State is estimated at $28,585,552, an average of $40.77 per acre.

Development of the Old Ute Reservation.

The Gurlay Investment Company, of Denver, has entered into arrangements with Eastern capitalists for the immediate complete of the large irrigation project in the southern part of Montrose County, and the northern section of San Miguel County, embracing an area of 2,205,000 acres. The new project insures the building of 60 miles additional of a canal of large dimensions, with laterals and side ditches 75 miles in extent; the carrying up of the two great reservoir systems, partially completed, which, when finished, will impound more than 22,000,000,000 cubic feet of water; the bridging of the Naturita creek cañon, a fine water plant for domestic purposes; the erection of a beet-sugar factory of 700 tons daily capacity; a large canning factory and other industrial enterprises. The waters of the Seven Beaver will be conducted over the entire area, the present canal system will be greatly enlarged to carry several times its present capacity, and the general work of construction will be carried out on a large scale.

The La Sal Mining Company has shipped more than 3,500 tons of their higher grade silver and copper ores to the Boston and Colorado Reduction Works, the tonnage having netted more than $250,000 above railroad and smelter charges. Im-
mense bodies of lower grade ores lie in great dumps from these mines, but the wagon transportation of 75 miles to the railroad, with a fixed tariff of 18 a ton, keeps the owners from placing it in the market.

Coal.—In the year 1902 there was unusual activity in the investigation of Colorado coal-fields, in the known as well as the unknown sections, but more especially in the region soon to be opened in northwestern Colorado by the Denver and Salt Lake Railway, now in process of construction. Experts have made extended surveys in many directions, and have reported the existence of coal in great quantities.

In the federal report for 1900 Colorado is credited with an output of 5,244,304 tons of coal in that year, the average price per ton at the mine being stated at $1.12, or a total of $5,858,036 when ready for shipment. At the average selling price, $1 a ton, the 1900 output would mean $51,000,000.

According to the census returns for 1900, Colorado contains approximately 18,100 square miles of anthracite, bituminous, and lignite-bituminous coal. A conservative estimate places the workable area in Colorado at about 50 per cent. of the total area occupied by the coal-bearing formations, and the possible coal, on the 50-per-cent. basis, is estimated by the Government experts at 33,897,800,000 tons. The magnitude of these figures will be appreciated when it is recalled that the coal area of Pennsylvania is 45,926 square miles, and that the coal area in that State does not exceed 12,774 square miles, while the coal area of all Great Britain is but 9,000 square miles.

New Industry.—A new packing plant was opened in Denver in the autumn of 1902, which is expected to make that city a distributing point for range cattle and a market for fat stock as well as for feeders. This plant will not only give employment to hundreds of men, but it is likely to stimulate the stock business of the whole State and to provide a convenient market for the stockraisers of Colorado, Wyoming, Utah, and New Mexico, and all the territory of which Denver is the natural center. The new plant has a capacity of dressing 900 cattle, 1,000 sheep, and 1,000 hogs daily.

A new device for the branding of cattle has been invented by A. A. Phipps, of Denver, Col., and adopted at the stockyards. The new branding-iron is a self-heating arrangement. The handle is a hollow tube wherein gasoline is held. On the end of the tube is an air-pump to force the gasoline down and assist in generating a gas to heat the brand on the other end. This brand is made of copper, and is heated from the inside. Tests for speed as compared with the old way have been made, and have resulted in branding at the rate of more than 100 head an hour.

New Mint.—On May 21, 1902, a bill was passed in Congress appropriating $250,000 to $300,000 to build a new mint building in Denver.

Home for Helpless Poor.—Winfield Scott Stratton, the millionaire mine-owner and builder, who died Sept. 14, 1902, at his home in Colorado Springs, left a kit, or will, for a free home, in some town in El Paso County, Colorado, to be built for the maintenance of worthy poor persons living in Colorado who are without relatives, and of whom and whose services are unable by reason of old age, extreme youth, sickness, or infirmity to earn a livelihood. The building is to be called the Myron Stratton Home, in memory of the father of the deceased millionaire.

Political.—At the State election in November the Republican candidates were elected as follows: Governor, Joseph H. Peabody; Lieutenant-Governor, W. A. Haggart; Secretary of State, James Cowie; Treasurer, Whitney Newton; Auditor, John A. Holmberg; Adjutant-General, G. F. Gardner; Attorney-General, N. C. Miller; Superintendent of Education, Helen L. Greelf. The vote on Governor was Republican, 57,612; Democrat, 80,217. The vote for the other tickets was small.

CONNECTICUT, a New England State, one of the original thirteen, ratified the Constitution Jan. 8, 1788; area, 4,900 square miles. The population, according to each decennial census, was 237,948 in 1790; 251,002 in 1800; 261,842 in 1810; 275,148 in 1820; 297,675 in 1830; 309,976 in 1840; 370,792 in 1850; 400,147 in 1860; 537,454 in 1870; 625,700 in 1880; 746,258 in 1890; and 808,355 in 1900. Capital, Hartford.

Government.—The following were the State officers in 1902: Governor, George P. McLean; Lieutenant-Governor, Edwin O. Keefer; Secretary of State, Charles Phelps; Treasurer, Henry R. Gallup; Comptroller, Abram Chamberlain; Attorney-General, George M. Cole; Insurance Commissioner, Edwin L. Beall; and Auditor, Elmer H. Wallace. The following were elected in November: Secretary of State, Charles Phelps, 1 by Theron Upson; Railroad Commissioners, Washington F. Wilcox, William O. Seymour, O. R. Fryer; Auditors, W. A. Riley, J. P. Bee; Street Commissioner, Henry E. Back; Fish and Game Commissioners, G. T. Matthewson, E. H. Geer, R. G. Pike; Sheriff; Commissioners, G. C. Waldo, Christian Schwarz, Seth Sanford; Tax Commissioner, Andrew F. Gates; Forester, Walter Mulford; Fire Marshal, John A.Russing; Commissioner of the School Fund, Carnot O. Spence; President of the Board of Charities, Henry H. Bridgman; Commissioners of Banking, C. H. Noble, G. F. Kendall; Commissioner of Building Associations, M. C. Webster; Dairy Commissioner, John B. Noble; Stock Commissioner, Heman O. Averill; Entomologist, W. E. Britton; Factory Inspector, G. L. McLean; Board of Mediation and Arbitration, F. T. Ives, G. A. Parsons, G. L. Smith, all of whom resigned in October; Chief Justice of the Supreme Court of Errors, David F. Fisk; Associate Justices, Samuel O. Prentice, Frederic B. Hall, Simeon E. Baldwin, William Hamersley. The last two mentioned are Democrats, the other judges and the elected State officers are Republicans. Clerk of the Court, George A. Conant.

The term of the State officers is two years, except that of the Attorney-General, which is four years. Elections are held in November of the even-numbered years. The Legislature meets biennially in the following January; the session is not limited as to length.

Finance.—Following is the statement of the receipts and expenditures of the State treasury for the year ending Sept. 30, 1902: Military commutation tax, $55,276.10; mutual fire-insurance companies, $12,060.01; life-insurance companies, $310,402.98; railroads, steam, $984,918.57; railroads, street, $238,922.50; non-resident stock, $141,131.35; savings-banks, $445,721.77; miscellaneous receipts, $47,249.16; interest of school-fund transferred, $110,524.21; avails of courts and forfeited bonds, $52,115.10; national aid to soldiers' homes, $30,860.38; express companies, $11,440.98; telegraph and telephones, $19,049.87; insurance commissioner, $108,860.16; sundry taxes and receipts, $88,021.96; inheritance tax, $333,734.90; investment tax (on notes, bonds, etc.), $147,041.98; interest on deposits in banks, etc.,
$31,611.70; total yearly receipts, $3,275,112.23; total yearly expenditure, $3,112,887.57; funded debt, less civil list funds in the treasury, $1,091,402.10. The expenditures include $486,000 paid for State bonds redeemed and canceled.

The grand list of the State for October, 1901, is given as $649,571,791, a decrease of $44,828,371 from the amount of the preceding year. This decrease, which is only apparent, is owing to a change in the law regarding the assessment of stock of banks, national banking associations, trusts, insurance, investment, and bridge companies.

The expenses of the Constitutional Convention were $24,362.91.

Among other items in the general expense account are the following: Salaries and expenses in executive offices, $39,314; judicial expenses, $401,324.99; board of prisoners in county jails, $100,077; State Capitol and grounds, $64,407; common schools, $483,623; State normal schools, $57,864; State Prison, $55,876; Connecticut School for Boys, $61,123; Connecticut Industrial School for Girls, $44,676; State paupers, $8,388; humane institutions, $409,040; sick and wounded soldiers, $24,660; National Guard, $148,836; Highway Commission, $129,428; interest on State bonds, $65,360; State bonds purchased, $468,000.

Education.—The number of illiterates in the State, according to the census table of 1900, was 42,973.

The number enrolled in the public schools in 1901 was 155,228, an increase of 3,963. The average number of pupils in session was 189,01; the number of schools, 1,522; value of school property, $10,837,685.27; average monthly wages of male teachers, $88.88; of female, $44.40. The total revenue for public schools was $2,989,306.54. The attendance at the New Britain Normal School was 251; at Willimantic, 110.

At the 160 parochial and private schools 31,190 pupils were registered, of whom 3,368 were over sixteen years of age; the average attendance was 23,475, and the number of teachers 867.

The enrolment at Yale in 1902 was 2,750, not including the summer school of forestry or the enrolment in the School of Mines, which was 781.

Charities and Corrections.—The report of the State Board of Charities for the fiscal year 1902 has the following item: The insane in the institutions visited are 90 in number, and include the State Prison, 11 county jails, the reform and industrial schools, 14 institutions for the insane, including private sanitariums, schools for the feeble-minded, the deaf and the blind, 18 hospitals, the 8 county temporary homes for children, and 30 private homes and asylums for children and old people. Besides these there are reports and statistics of the care of the town poor in all the 106 towns in the State, of which 90 maintain almshouses.

The expense to the State for the maintenance and supervision of these institutions was $266,073.

The amount expended by the State for building operations was $193,100, compared with $142,000 in 1901.

The average number of inmates at the State Hospital for the Insane was 2,192. Twelve private sanitariums for mental and nervous diseases are visited by the board, and a diversity of conditions is found in their equipment and general management. The number of insane persons under restraint in the State is estimated at 3,000, being distributed as follows: State hospital, 2,500; private hospitals, 350; private asylums, 290; in town almshouses, 350.

The School for Imbeciles, at Lakeville, is car-

ing for the largest number of inmates in its his-

At the Industrial School for the Blind increased activity in the working departments is reported, the number of blind residents being 30. The kind-

The records of the county temporary homes for dependent and neglected children show 348 children committed to their care during the year. The number of children placed in family homes was 306, and the number remaining in the county homes on Sept. 30 was 742.

The report of the directors of the prison gives the average daily census of convicts as 500, against 490 for the year preceding. The mortality rate, 0.94 to the 1,000, was smaller than the ratio for the State at large, and the lowest for a long pe-

The earnings from convict labor, surpassing those of any previous year, aggregated $53,875. During the past eight years the revenues from this source have steadily expanded. Supplementary revenues of $3,191 from other sources increased the total income of the prison to $57,069, which was more than 75 per cent. of the total cost of maintenance.

Military.—The strength of the National Guard is 2,961 officers and men. The net gain in the year is 16. In the past year 2 companies of coast artil-

The number of men enrolled, 108,784 liable to military duty in case of war, 26,665 exempt for legal causes, and 4,069 liable to pay a military commutation tax of $2 each a year. The disbursements of the several military departments of the State were $138,114.81.

Railroads.—The gross earnings of the steam railroads in the year ending June 30, 1902, were $45,125,648.70, compared with $41,761,906.25 for the previous year. The passenger revenue was $18,275,183.22 and the freight revenue $26,856,444.40, the balance being the revenue from other sources. The gross earnings per mile run were $1.98. The operating expenses of the year were $32,697,563.55, being an increase of $3,524,357.70 over that of the previous year, almost equaling the increase in earnings. The operating expenses per mile run were $1.44.

Of the 421 injuries to passengers, employees, trespassers, and others, 125 were fatal, only 1 to a passenger. The amount of taxes paid was $2,490,526.12, which is $15,104.77 in excess of the amount paid for the previous year. The amount of taxes paid to the State was $984,918.37. The entire amount paid for taxes is about 51 per cent. of the gross earnings. The length of main line and branches in Connecticut is 1,013.35 miles, the length of the second track 248.55 miles, and the length of the third and fourth tracks 84.88 miles. There are also 489.90 miles of sidings.

When the street railway companies began to report to the commissioners, seven years ago, there were 317 miles of street tracks; there are now 517. The capital stock was then $8,604,240. compared with $33,571,248 now. The earnings were then $2,232,031.37; they were this year $3,937,771.40. The amount of taxes paid then was $75,622.34; the amount paid now is $244,270.88.

Banks.—The deposits in the 90 savings-banks on Oct. 1, 1902, amounted to $203,522,225.98, an in-

The whole number of depositors is 444,407, an increase of 13,819. The average amount due to each depositor is $457.96, an increase of $3.89 for each depositor. The total assets amount to $214,892,897.49, a gain
over last year of $10,466,032.81. The State banks had total assets of $10,862,446.98. The liabilities were $10,862,446.98, the principal items being: Capital stock, $2,240,000; unappropriated surplus, $439,850; undivided profits, $547,250.18; and deposits, $7,484,578.72.

The trust companies had assets of $15,160,824.10. The number of State banks reporting was 8. The number of trust companies was 16.

Life-Insurance.—The premiums of all life companies doing business in the State increased from $809,703,547 in 1900 to $837,911,706 in 1901. The increase of the Connecticut companies was $1,180,546; of others, $8,109,211; of industrial companies, $5,519,061. Payments for death claims and to endowment policy-holders increased $14,024,471.

The total of the admitted assets of all companies showed a gain from $1,701,594,888 to $1,838,241,860, and the Connecticut companies alone showed an increase from $164,021,504 to $171,674,853.

The insurance increased, for the Connecticut companies, from 277,719 to 294,293 policies, and in amount from $544,067,128 to $574,900,791.

Highways.—About 133 miles of roadway were improved in one year under the old appropriation of $800,000, among the sums contributed by the towns, to $460,000. Since 1895 about 500 miles have been improved, with the aid of the State.

Industries and Products.—Of the dairy interests of the State Commissioner Noble says: "We have 26,948 farms in this State, valued at $97,425,000. The value of our farm-products in 1901 was $289,380. From this amount $61,178,000 worth was fed to live stock on the farm. All farm property, including land, buildings, implements, and live stock, was valued, June 1, 1900, at $113,305,630. The oleomargarine made in the State amounted in 1901 to 10,786,302 pounds. The poll-tax in 1901 caused a loss to the tobacco farmers of the State estimated at about $1,000,000. Experiments with the shade-grown Sumatra tobacco have been successful.

The Labor Commissioner's report gives the following items in regard to manufacturing interests in 1901: Eighty-seven concerns erected 92 additions and new factories. This stands in comparison with 245 manufacturing buildings and additions erected the twelve months previous by 172 concerns. The expenses incurred in the latter in 36 of the 168 towns, against 59 the year previous. From Jan. 1, 1901, to Oct. 30, 1901, 93 strikes and 3 lockouts were chronicled. Only one-third were failures. The totals show that 11,250 employees were involved in the strikes and that the resulting loss of time was 250,168 working days, which amounted to a loss of wages to the amount of $375,252. In 984 establishments 104,256 persons employed received an average of $441.53 each in earnings, while the daily earnings per person were $1.50 a day.

The Putnam House.—A deed conveying the historic Putnam cottage to the Israel Putnam House Association was passed at Greenwich Nov. 25, the consideration being $7,125. The association received a charter from the last Legislature for the purpose of taking possession of this property, which consists of a house and 1 acre at the top of Putnam's Hill on the Boston Post Road. The house will be used as a museum by the local chapter of the Daughters of the American Revolution.

Derby.—A memorial library given to the city by Mrs. and Mrs. H. H. Wood in memory of their son, Harcourt Wood, was dedicated Dec. 27.

Farmington.—At Farmington, Oct. 28, a building erected as a memorial to Miss Sarah Porter, of the Farmington School, was opened and presented with an inscription and appropriate exercises.

Simsbury.—A chapel in memory of Adelbert S. Hay was given by his father and mother to the Westminster School at Simsbury and dedicated Nov. 1.

Kensington.—A free library presented to Kensington by Henry Peck, of Waterbury, was dedicated Nov. 6.

Hartford.—A new hospital for consumptives, built on the crest of Newington mountain, an auxiliary to the Hartford Hospital, was opened in May.

Waterbury.—This city was devastated by two fires in February, with the loss of about 100 business buildings, involving from $4,000,000 to $5,000,000.

New Milford.—A fire at New Milford, May 5, entailed a loss of $500,000 to $700,000.

Constitutional Convention.—This convention, called by a vote of 47,517 for and 26,742 against it, met in Hartford, Jan. 1, with 106 delegates, 1 from each town. It was in session more than four months, adjourning May 15. A special election, held June 16, to decide whether the Constitution framed by the convention should be accepted, resulted in its rejection. The vote was very light; while the vote for President in 1900, the largest ever cast in the State, aggregated 180,115, and the registered vote of the State was 207,762, only 31,374 voters expressed their will in regard to the proposed Constitution—10,250 for its adoption and 21,124 against.

The interest in the work of the convention centered on its action in the matter of representation. The existing Constitution was framed in 1818, and has been modified by 30 or more amendments, which, however, did not materially change the system of town representation. The act providing for the convention provided that delegates should be chosen on the basis of town representation instead of that of population, thus giving the small towns the same control that they have in the Legislature. No radical change in the principle of apportionment was therefore to be expected.

Political.—The Republican State Convention was held in Hartford, Sept. 17. Gov. McLean declined to be a candidate for another term, and Abram Chamberlain, the Comptroller, was nominated for Governor. The names of candidates for other offices were: For Lieutenant-Governor, Henry Robert Secretary of State, Charles G. R. Vinal; Treasurer, Henry H. Gallup; Comptroller, William E. Scott; Attorney-General, William A. King; Congress- man at Large, George L. Lilley.

The resolutions approved the policy of the President and favored his renomination; opposed a general revision of the tariff; favored the re-election of Senator Platt; favored also measures in the interests of labor and supervision of trusts: thanked Gov. McLean for his able administration; and said further: "We pledge the Republican party at the coming session of the General Assembly to a fair and equitable readjustment of the senatorial districts in accordance with the constitutional amendment passed by 2 Republican Legislatures, and last ratified by the people at the polls.

"We declare our faith in the historic town system of Connecticut, but, recognizing the natural desire of the populous towns for increased representation in the house, we believe that change which will preserve the fundamental features of the present system and at the same time meet all reasonable demands, should be effected, and
that they can be accomplished by the regular process of constitutional amendment.

The Delaware delegation in Congress in New Haven Sept. 25 and nominated the following: For Governor, Melbert B. Cary; Lieutenant-Governor, E. Kent Hubbard, Jr.; Secretary, Arthur B. Calking; Treasurer, Philip Hugo; Comptroller, Edward G. Kilduff; Attorney-General, Noble E. Pierce; Representative at Large, Homer S. Cummings. The platform as reported was in part as follows:

"We have no sympathy with the Republican policy of fostering and protecting monopolies by legislation and at the expense of the people. We believe that the prices of beef, coal, and other necessities of life have been raised through illegal combinations and by means of special privileges conceded to monopoly by the party in power, and we demand the passage of such new laws as are required to supplant and give potency to existing statutes. We demand publicity as to the affairs of corporations engaged in interstate business, and the enactment of laws requiring all such corporations, before doing business outside of the State of their origin, to show that they have no water in their stock and that they are not designed to monopolize any branch of business or the production of any articles of merchandise."

Reciprocity with Cuba was favored and an immediate reduction of the tariff on Cuban imports urged. Other planks protested against the granting of ship subsidies, favored the election of United States Senators by popular vote and demanded legislation to prevent "government by injunction."

The State Prohibition Convention opened Sept. 9 in New Britain. Nominations were made as follow: For Governor, Robert N. Stanley; Lieutenant-Governor, Atwood H. Smith; Secretary, Leon M. Barnes; Treasurer, Oliver G. Beard; Attorney-General, John J. Copp; Comptroller, William Ingalis; Congressman at Large, Frederick G. Platt. By the roll call of the members of the Delegation the Republicans were continued in control of the State government.

The summary of the vote for Governor was: Chamberlain, Republican, $5,358; Cary, Democrat, 69,360; Valley, Independent, 41,200. By the decisive vote of the Republicans the balance of the ticket was returned.

The Socialist vote was considerably larger than in former elections.

On joint ballot the Republicans will have 205 in the Legislature and the Democrats 74.

Waterways.—Congress at the last session appropriated the following sums for improving the harbors: New London harbor, $29,400; New Haven harbor breakwater, $44,000; Milford harbor, $15,000; New London harbor breakwater, $39,000; New Jersey harbor, $20,000; Pawtucket river, $9,000; Thanes river, $15,000; Housatonic river, $10,000; Connecticut river, below Hartford, $30,000.

DELAWARE, a Middle Atlantic State, one of the original thirteen, ratified the Constitution Dec. 7, 1787; area, 2,120 square miles. The population, according to each decennial census, was 30,068 in 1790; 64,273 in 1800; 72,674 in 1810; 72,740 in 1820; 78,885 in 1830; 91,532 in 1850; 112,216 in 1860; 125,015 in 1870; 146,088 in 1880; 168,493 in 1890; and 184,735 in 1900. Capital, Dover.

Governors.—The following were the State officers in 1902: Governor, John Hunn; Lieutenant-Governor, Philip L. Cannon; Secretary of State, Caleb R. Layton; Treasurer, Martin B. Burris; Auditor, Purcell B. Norman; Attorney-General, Herbert H. Ward; Insurance Commissioner, George W. Marshall; Adjutant-General, I. P. Wickersham; Chemist, T. R. Wolf; President of Board of Pilot Commissioners, Alfred D. Poole—all Republicans; Chancellor, John E. Nicholson, Democrat; Chief Justice, Charles B. Lore, Democrat; Associate Justices, Ignatius C. Grabu and William H. Boyce, Democrats, and W. C. Spruance and James Pennewill, Republicans; Clerk, William Virdin, Democrat.

The term of the State officers is four years. They are elected at the time of the presidential elections. The Legislature meets biennially in January of the odd-numbered years; the session is limited to sixty days.

Finances.—The Auditor's estimates of receipts and expenditures in 1901 were respectively $482,558 and $341,005. The assets of the State were given as $1,115,509, and the liabilities as $759,750.

Education.—By the census of 1900 it is shown that there are 17,531 illiterates in the State. The percentage of persons from ten to fourteen years of age able to read and write was 95.49 in 1900; it was 98.96 in 1890. The number of illiterates in 1900 was 14,031.

The State College, at Newark, which had 114 students in May, graduated a class of 15 in June. As a result of the suspension of 6 students in May for participation in horse racing, about 100 students went out on strike.

The average monthly salaries paid to teachers in 1900 were, for men $30.60, and for women $24.08.

Waterways.—The following sums were appropriated by Congress for improvements to the waters of the State: For Delaware river—New Jersey, New York, and Delaware—$400,000; for Appoquinimink, Murderkill, and Missippen rivers, $15,000; for Smyrna river, $15,000; for Wilmington harbor, $50,000, not more than $25,000 to be used until arrangements have been made to dispose of the sewage of the city so as to prevent the filling of the channel.

Products and Industries.—Statistics of manufactures of all kinds are given in Annual Cyclopedia for 1901. Others for special branches of manufacture have been published since. The capital invested in cotton manufactures, exclusive of cotton small wares, in 1901 was $494,668; the number of looms was 738; the value of products, $372,089.

Delaware ranked ninth in the list of leather-producing States in 1890, and sixth in 1900. Delaware has 5 establishments for the making of butter and cheese, with a capital of $19,085 in 1890, and 22 (1 creameries and 1 cheese factory), with a capital of $85,155, in 1900. The value of the products was $124,780 in 1890 and $252,290 in 1900.

The statistics of the ship-building industries are: Establishments, 11 in 1890 and a similar number in 1899; capital, $1,745,213 in 1890 and $2,226,811 in 1900; salaried officials, clerks, etc., 43 in 1890 and 97 in 1900; salaries of officials, clerks, etc., $108,174 in 1890 and $124,010 in 1900; average number of wage-earners, 1,769 in 1890 and 2,031 in 1900; wages, $808,077 in 1890 and $992,449 in 1900; miscellaneous expenses, $69,819 in 1890 and $122,267 in 1900; cost of materials, $594,359 in 1890 and $1,694,818 in 1900; value of products, including repairing, $2,044,313 in 1890 and $3,004,306 in 1900.

Delaware has 1 iron and steel ship-building establishments. In 1900 they built 13 iron and steel vessels, valued at $1,908,599.
Following are the figures on the manufacture of flour: Establishments, 50, with a capital of $1,127,692, in 1890, and 83, with a capital of $1,617,808, in 1900.

The value of the products was $1,675,040 in 1890 and $1,165,800 in 1900.

The reports of the shipments of fruit over the railroads in the summer of 1902 showed estimates of 2,351,460 baskets of peaches and 362,345 baskets of pears.

Political.—The factional contest in the Republican party in the State continued through the year, notwithstanding attempts that were made to bring about a compromise. The regular Republicans proposed to the Union Republicans, the supporters of J. E. Addicks, that each faction should submit to the other the names of 10 men, any one of whom they would be willing to support, the other faction to make their choice, and thus secure 2 Republican Senators. The regulars submitted a list of 10 men of Kent and Sussex Counties, agreeing to support any one of them who should be the choice of the Union Republicans, provided the latter would submit a similar list of men of New Castle County, and agree to support that one of them who should be preferred by the regulars. This proposition was rejected by the Union Republican State Committee, which suggested a caucus of the Republican members of the General Assembly, to be participated in by members of both factions and the selection by each of a candidate of its choice, to be voted for by all the members in open session. It was desired to have a special session of the Legislature called. This proposal was rejected. The one faction was determined on “Addicks or nobody,” the other on “nobody rather than Addicks.” They held separate State conventions, each naming a candidate for member of Congress, but uniting on the candidates for Treasurer and Auditor, thus causing the election of the Democratic candidate for Congress. William M. Byrne, District Attorney for the State, resigned that office to become the candidate of the Union Republicans for Congress, and after his defeat he was reappointed to the federal office by the President.

The Regular Republican Convention met in Dover on the 19th of June and nominated the following ticket:

For Representative in Congress, Dr. L. Heisler Ball; Treasurer, Martin B. Burris; Auditor, Purnal B. Norman. The greater part of the platform was in support of the national policy of the party. On State affairs the following declarations were made: "We demand State legislation looking to a complete and comprehensive system of auditing the accounts of all State, county, and hundred officials, to the wise and systematic improvement of the public highways under county road engineers, and to identical methods of conducting elections in all the counties.

"We favor a free and untrammeled ballot, and we pledge ourselves to the repeal of the clause of the State Constitution requiring the payment by the voter of any money as a qualification for exercising the right of an elector.

"We favor legislation providing salaries for all State officers. We also favor better facilities and higher efficiency in our schools, and we desire that colored children should enjoy greater educational opportunities."

The ticket of the Union Republicans, whose convention was held in Dover, Sept. 2, was: For Representative in Congress, William Michael Byrne; Treasurer, Martin B. Burris; Auditor, Purnal B. Norman, and all the State officials the platform expressed satisfaction with the present administration; demanded legislation for good roads, and for protection of workmen operating complicated machinery; declared in favor of permanent registry of voters, and salaries for county officials; and said further: "That the interstate commerce law ought to be rigidly and impartially enforced, so that shippers of goods over a shorter haul should not be discriminated against in favor of a shipper of goods over a longer haul. We demand that the anthracite coal-mines of the country, which are at present closed, shall be opened and operated and coal supplied to the people at a fair and reasonable price therefor, and we believe that the owners of said mines, having devoted them to a public use, have granted to the public an interest in such use, and must, to the extent of the use, submit to be controlled by the public for the common good; that this public interest in said mines demands that they be immediately opened and operated; and that this interest is one that should be protected and conserved by the courts of the country."

The Democratic Convention, which was held in Dover, Sept. 17, nominated the following ticket:

For Representative in Congress, Henry A. Houton; Treasurer, Joseph H. Hossinger; Auditor, J. Thomas Lowe. An unsuccessful effort was made to include in the platform the principles of the Kansas City platform. Following is a part of those adopted:

"We favor the earliest possible completion of the inland waterway to our schools, the creation of good roads, the encouragement of competing lines of transportation by legislation favorable to electric railways and steamers on navigable waters, and believing the time has come when the condition of our State treasury under the operation of laws enacted by Democrats while in control of our Legislature warrants it, we favor abolishing all State taxes on merchants, manufacturers, and similar licenses.

"We favor a permanent system of registration and abolishing the registration fee of $1 as a prerequisite to voting."

The Prohibitionists, in convention in Middletown George W. Todd for Representative Congress, John H. Kelly for Treasurer, and H. B. Hitchcock for Auditor were elected. The vote for Treasurer was 20,705 for Burris to 16,652 for Hossinger. The members of the Prohibition convention elected to Congress by 16,396 against 8,028 for Regular Republican, and 12,988 for Byrne, Union Republican. The Prohibition candidate had 59 votes, and the Social-Labor 216.

The Legislature will have 30 Republican and 21 Democratic. FLORIDA, a Southern State, admitted to the Union, March 3, 1845; area, 58,969 square miles.

The population, according to each decennial census since admission, was 87,445 in 1850; 149,415 in 1860; 187,748 in 1870; 269,485 in 1880; 393,231 in 1890; and 528,542 in 1900. Capital, Tallahassee.

Government.—The following were the State officers during the year: Governor, William Jennings; Secretary of State, B. Clay Crawford; Treasurer, James R. Whifford; Comptroller, Azoo C. Croom; Attorney-General, William B. Lamar; Superintendent of Public Instruction, William N. Sheats; Adjutant-General, J. Clifford; State Board of Education, E. McElvin; State Chemist, E. R. Rose; State Auditor, W. V. Knott; Railroad Commissioners, J. E. Day (resigned; R. Hudson Burr appointed), L. L. Morgan, J. R. Soule, and J. L. Thomas; Joseph Y. Porter; Board of Health, E. M. Hay.
dry, Horace E. Simpson, M. D., N. B. Broward; Chief Justice of the Supreme Court, R. F. Taylor; Associate Justices, Milton H. Mabry (succeeded by W. A. Hocker), Frances B. Carter; Supreme Court Commission, W. A. Hocker, J. G. Glen, E. C. Maxwell. The Supreme Court Commission was abolished in November by law, and three additional justices of the Supreme Court appointed, as follows: Evelyn C. Maxwell, Thomas M. Shackleford, Robert S. Cockerell. Supervisor of Convicts and Convict Camps, Robert F. Rogers.

The term of the State officers is four years. They are elected in November of the years of the presidential elections. The Legislature meets biennially on the first Tuesday after the first Monday of April of the odd-numbered years. The session is limited to sixty days.

Valuation.—The assessed valuation on property of all kinds for 1901 was $87,551,192.17, an increase of $694,358 over the assessed valuation for 1900. The following data are given by the Comptroller in his last report: Number of acres, 25, 507,672; number under cultivation or improved, 1,117,617; valuation of improvements (exclusive of improvements on homesteads), $30,400,000; valuation of town and city lots with improvements thereon, $23,660,288; aggregate value of real estate, $90,000,756. Number of horses, asses, and mules, 57,174; cattle and calves, 9,179; hogs and swine, 1,114,343; number of swine and dogs, 212,571. Full cash value of all animals, $6,239,958; value of personal property other than animals, $12,904,874. Aggregate value of real estate, $60,000,758; aggregate value of personal property, $17,844,822; aggregate value of railroads and rolling-stock, $10,333,481.77; aggregate value of telegraph-lines, $292,130.40. Taxes for State purposes, $487,808.96; taxes for county purposes, $1,265,879.66; school subdistrict taxes, $70,744.16. State license tax (not included in State tax), $201,043.77.

Banks.—On Jan. 1, 1902, 25 incorporated banks were doing business under the laws of Florida. At the close of business on December 31, 1901, their assets amounted to $6,149,532.92, an increase over the assets of Jan. 1, 1901, reported as $4,773,016.11, of $1,376,516.75. Five of the State banks are savings-banks or have savings departments. Their aggregate assets of $6,322,929.31. The following figures indicate the condition of the banks of the State on Jan. 1, 1902: The resources were: Loans and discounts, $17,730,168; mortgages, $11,905,168; deposits, $4,382,116; due from private banks, $4,527.44; due from incorporated banks, $1,080,903.90; bank-house furniture, $173,750.18; other real estate and mortgages, $195,949.20; checks and other cash items, $34,236.65; cash in bank, $556,853.34; total, $6,149,532.92. Liabilities: Capital stock paid in, $185,250; surplus, $104,069.11; undivided profits, $145,350.39; dividends unpaid, $815; individual deposits, $4,492,741.28; demand certificates of deposit, $358,091.75; notes and bills rediscounted and other liabilities, $117,198.44; time certificates of deposit, $197,724.40; certified checks, $13,559.20; cashier's checks outstanding, $2,055.29; due to incorporated banks, State or national, $36,021.80; total, $6,149,532.92.

Insurance.—The last statement of the Treasurer gives the number of insurance companies authorized to do business in Florida as 80. Of these 50 are fire-insurance companies, 16 life-insurance companies, and 18 miscellaneous (accident, marine, surety, boiler, plate-glass, etc.). The aggregate losses of the fire-insurance companies in 1901 were $2,990,080.45, and the receipts for the same period $329,080.77, a loss for the year of $3,050,000.88. Twelve life-insurance companies report losses in 1901 as $386,383.66; receipts as $1,040,363.48, a profit for the year of $654,978.82. Eighteen miscellaneous companies report losses of $37,945.47, receipts as $75,138.80, a profit of $40,190.33. The heavy loss of the fire-insurance companies was owing to the great conflagration at Jacksonville, May 3, 1901, when a large part of the city was destroyed, causing a total loss of from $12,000,000 to $15,000,000.

Railroads and Telegraphs.—The last report of the Florida Railroad Commission gives the following figures: Railroad mileage for the year ending Feb. 28, 1902, 3,466.45 miles, divided as follows: Main track, 2,774.35 miles; branches and spurs, 403.19 miles; yard tracks and sidings, 288.91 miles. The valuation of railroad property assessed for taxation was $18,225,178.18; capital stock and bonds of roads, $70,330,201.05. Gross earnings for the year ending June 30, 1901, $1,179,133.85; operating expenses, $6,915,656.32; income from operation, $2,263,837.53. Gross earnings for the year ending June 30, 1902 (with the exception of 4 or 5 roads not reported) are $10,079,802.23; operating expenses, $7,481,548.24; net earnings, $2,598,153.99.

The assessed valuation for the telegraph-lines of the State was $29,554.74. Telephone valuation assessed, 1,565.32 miles, ranging from 3 to 55 wires to each pole.

Education.—The report of the Superintendent of Public Instruction for the year ending in 1902 gives the following data: Total enrolment of students, 112,354; number of white students, 69,541; negroes, 42,843; white males, 35,374; white females, 34,167; negro males, 20,000; negro females, 22,843; average daily attendance during the year of both races was 76,104; of whites, 46,264; of negroes, 29,881. The average number of days of schooling was: Both races, 49; whites, 55; negroes, 41. The number of teachers employed was 2,799, divided as follows: Whites, 2,129, of whom 623 were men and 1,506 women; negroes, 670, of whom 278 were men and 392 women. The highest monthly salary paid to white men was $150; to white women $90; to negro men $100, and to negro women $50. The average salary was $44.25 to white men; $35.44; to negro men $29.99; to negro women $28.75. The amount paid to all teachers was $589,733.33. The value of all property used for school purposes was $1,000,000,000. The value of buildings owned by county boards, $646,482; value of grounds owned by county boards, $783,861.

The Florida School for the Deaf and Blind had enrolled for the school year ending June 30, 1902: Whites, 47; negroes, 26. White deaf boys, 15; white deaf girls, 22; total, 37. White blind boys, 8; white blind girls, 4; total, 10. Negro deaf boys, 13; negro deaf girls, 7; total, 20; negro blind boys, 4; negro blind girls, 2; total, 6.

The Legislature appropriated $12,000 for its support during the year ending June 30, 1902. Additional appropriations of $4,700 were made for building and other expenses. The expenditures for the year were $15,495; the balance in the treasury, June 30, 1902, was $1,700.

Corporations.—In the first six months of 1902 54 corporations were chartered by the State of Florida. The capital stock represented by these companies aggregated $1,629,129.50. Manufactures.—The United States Government statistics give the following figures: Value of manufactured products in 1890, $18,225,800; in 1900, $36,810,243. Number employed in man-
manufacturing in 1890, 13,190; in 1900, 34,230. Wages paid in manufactory in 1890, $6,918; 614; in 1900, $10,853,086. Value of farm-products in 1890, $12,086,320; in 1900, $18,309,104.

Phosphate.—According to statistics furnished by the United States Geographical Survey, Florida, since 1894, has been the chief State in the production of phosphate rock. In 1888 the number of tons mined was 2,813; in 1894 it was 589, 174; in 1901 it was 751,996.

Claims and Appropriations.—Two events of importance to Florida were the passage by Congress of the Florida Indian War claim against the United States Government, which the Florida delegation to Congress had for forty-four years vainly tried to collect; and the appropriation of nearly $35,000,000 by Congress for Florida rivers and harbors. The Indian War claim amounted to more than $1,000,000. The improvements in the principal ports of the State insured by the appropriation made by Congress will greatly increase their commercial importance.

Political.—On July 15, 1902, Florida held its first primary election for the nomination of candidates to be voted for at the regular election in November. A primary election was held on Aug. 12 to determine the nomination where no one candidate received a majority vote. Candidates for the United States Senate, 2 Railroad Commissioners, Supreme Court, Justices, State Comptroller, for the First and Second Congressional Districts, for the new Third Congressional District, Secretary of State, candidates to represent all of the counties in the legislature, lower house in the Legislature of 1903, and to represent half of the counties in the Senate, as well as a large number of county officials, were voted for by the Democratic party. No negro and no white man other than a Democrat was allowed by law to take part in this Democratic primary election. The entire State ticket nominated by the primary was of course Democratic. All the candidates were nominated by the primary were elected in November. One Republican member of the lower house was elected. The Republicans did not nominate any State ticket.

Constitutional amendments were voted for in November: one providing for three additional Supreme Court justices, and one providing for an additional judicial circuit. Both amendments were carried.

Penitentiary.—On Jan. 1, 1902, Florida had 921 convicts in its care. In 1902 449 were received and 38, who had escaped, were recaptured. In the year 1902 91 convicts were discharged on expiration of their sentences, 40 were pardoned, 78 escaped, 6 were committed to the insane asylum, and 2 were released by order of court. On Dec. 31, 1902, the convicts numbered 1,033. Of the convicts received in 1902, 12 were of foreign birth, and 437 were native-born. Their ages varied from eleven years to sixty years, the largest number being committed between the ages of nineteen and thirty-one. Of these convicts, 36 were white, 35 being males and 1 female; 413 were negroes, 399 being males and 14 females. Forty-nine were committed for murder, 55 for attempt at murder, 65 for grand larceny, and 55 for entering with intent to commit misdemeanor.

Finance.—The Treasurer's report of the general revenue fund for 1902 shows a balance in the treasury on Jan. 1, 1903, of $224,074.19. The receipts in 1902 amounted to $509,074.19, the principal sources of revenue being as follows: General revenue, $1,335,099; admission tax, $57,546.11; State taxes, $232,594.52. The debt of the State on Jan. 1, 1903, was $1,032,500, divided as follows: Bonds in State school fund, $350,100; bonds in Agricultural College funds, $135,007; bonds in seminary funds, $98,000; bonds in the hands of outsiders, $148,000. Total funds on hand Dec. 31, 1902, amounted to $1,092,458.26. Of this $902,946 was the Indian War claim fund. Appropriated and paid by the Congress of the United States in 1902 after pending nearly fifty years. The bonded debt of the State consists of $704,800 of 6-cent, bonds, and $207,700 of 3-per-cent, manuscript bonds issued to the 3 educational funds of the State. In 1873 $295,000 of 6-cent State bonds were issued, to mature Jan. 1, 1903. The sinking-fund has taken up $186,200 of these bonds. This leaves $704,800 of them outstanding, and of these $616,800 are held by the 3 educational funds of the State as investments, and $148,000 are held by individuals and will be paid on presentation. The $297,000 of 3-cent, manuscript bonds held by the educational funds of the State were issued in place of a like amount of 7-cent, bonds, which were held by these funds and which matured Jan. 1, 1901.

Charities.—The State Hospital for the Insane reports that in 1902 286 new patients were admitted, the whole number treated in the year being 926. In that year 100 discharges were made, 13 as improved, 4 as unimproved, 1 as insane. One hundred and two died in the year.

GEORGIA, a Southern State, one of the original thirteen, ratified the federal Constitution Jan. 2, 1788; area, 59,475 square miles. The population, according to each decennial census, was 82,548 in 1790; 162,866 in 1800; 252,433 in 1810; 340,895 in 1820; 518,243 in 1830; 691,322 in 1840; 906,185 in 1850; 1,057,286 in 1860; 1,184,109 in 1870; 1,542,180 in 1880; 1,837,353 in 1890; and 2,216,331 in 1900. Capital, Atlanta.

Government.—The following were the State officers in 1902: Governor, Allen D. Candler; Secretary of State, Philip Cook; Treasurer, Robert E. Park; Comptroller-General, William A. Wright; Attorney-General, Boykin Wright; Adjutant-General, J. W. Robertson; Commissioner of Education, G. R. Glenn; Commissioner of Agriculture, O. B. Stevens; Geologist, W. S. Yeates; Chemist, J. M. McDandlees; Postmaster General, John W. Lindsey; Entomologist, W. M. Scott; Librarian, Carlton J. Wellborn; Railroad Commissioner, Spencer R. Atkinson; J. Pope Brown, and G. Gunby Jordan; Prison Commissioners, J. S. Turner, C. A. Evans, and Thomas Eason; Chief Justice Supreme Court, Thomas J. Simmons; Associate Justices, Samuel Lumpkin, Hal Lewis, Andrew J. Cobb, William A. Little, and William H. Fish; Clerk, Z. B. Harrison; Court Reporter, George W. Stevens and John M. Graham, all of whom are Democrats.

Early in 1902 Joseph M. Terrell resigned as Attorney-General, to enter the gubernatorial race. He was elected. Boykin Wright was appointed by Gov. Candler to fill the unexpired term of Attorney-General Terrell, and, at the autumn ele...
tion, John C. Hart was elected Attorney-General for the full term of two years. The Legislature in the autumn of 1902 abolished the office of Special Attorney for the Western and Atlantic Rail-
way, which, up to that time, had been held by Edward T. Brown. Mr. Justice Henry T. Lewis resigned from the Supreme Court bench in 1902, and Judge John S. Candler, who was presiding officer of the Stone Mountain Judicial Circuit, was elected to succeed him. Prof. Merritt was elected to succeed W. R. Glenn as State School Commissioner.

The term of the State officers elected by the people is two years. They are elected the first Monday in October of even-numbered years. The Legislature is elected for two years, and, until 1903, met annually on the fourth Wednesday in October for a session of fifty days. In the autumn of 1902 a law was passed changing the time of sessions to the fourth Wednesday in June, and the new Legislature will have 3 sessions, the last 2 occurring in June, 1903, and in June, 1904.

Finance.—The balance in the treasury Oct. 1, 1901, was $730,722.10, while the receipts for the same period amounted to $1,799,783.10. From Oct. 1, 1902, were $3,886,183.21. The disbursements for the year amounted to $4,105,705.10, leaving a bal-
ance in the treasury Oct. 1, 1902, of $511,180.21. The Legislature was authorized to borrow $200,000 during the year to cover casual deficiencies, but it was only necessary to secure $150,000. The money was borrowed in New York at 3 per cent. 

A large debt (over the Jan. 1, 1903, was $7,631,500. On that date $100,000 of bonds was retired. The law requires that this amount of bonds shall be retired the first of every year, or $100,000 is raised by special tax levy for this specific purpose. The yearly interest charge against the State is $325,500. For years there has been in the treasury an amount, which, on Jan. 1, 1903, was $152,437.65, arising from the sale of public property, which, according to a de-
cision of the Supreme Court of the State, may now be used to pay interest on the bonded debt. The Legislature in December, 1902, took the necessary steps authorizing the Treasurer to use this fund in the manner named.

The State owns the Western and Atlantic Rail-
way Company, the Tennessee and Alabama Railroad, Chattanooga, Tenn., 137 miles, and is estimated to be worth about $12,000,000. This property was leased for twenty-five years by the Nashville, Chattanooga and St. Louis Railroad for $100,000 per annum, which the State receives yearly $420,012. The State also owns 186 shares of stock of the Georgia Rail-
way and Banking Company, valued at $20,700, and 440 shares of stock of the Southern and Atlantic Telegraph Company, incorporated by the Western Union Telegraph Company, valued at $10,000.

Valuations.—The value of all the taxable property in Georgia for 1902 was $467,310,648, which was an increase over 1901 of $10,755,749. The increase in railroad property amounted to $3,957,878. To the assessed value of corporate property returned to the Comptroller-General for taxes ($56,893,468) should be added the estimated value of that portion of this class of property which by law is exempt from an ad valorem tax, which, as a conservative estimate of the Com-
ptroller-General, is worth about $22,000,000. The increase in assessments for 1902 was not as large as in the previous year.

In 1902 the Georgia returned $15,188, 039 of property for taxation. This was a decrease of $441,742 compared with the same returns for the previous year. In 1901, however, there was a large increase in tax returns on property owned by negroes in the State. In 1902 the value of manufactures amounted to $23,494,371, which was an increase over 1901 of $4,499,407. The value of merchandise was $24,104,341, an increase of $224,487 over 1901. There was also an increase of $477,045 in iron works, while the increase in shipping and tonnage was $203,900.

In the autumn of 1902 the Legislature passed a law making the franchises of all public uti-

corations subject to taxation at the same rate as other property owned by those concerns.

Railroads.—In 1902 there were 6,035.32 miles of railroad in Georgia, against 5,816.90 miles in 1901. The gross earnings of the roads for the year ending June 30, 1902, were $24,932,708.87, an increase of $1,700,645.35 over 1901. The operating expenses for the same period were $17,435,014.53, and the net earnings were $7,501,744.03. In 1901 the net earnings of Georgia railroads were $6,862, 571.19.

Insurance.—From the reports of the insurance companies licensed to do business in Georgia, it appears that the fire companies received in premiums in 1902 $3,902,651.29, and paid losses and expenses amounting to $2,767,782.18, and paid losses to $2,758,782.18, and paid losses amounts to $3,902,651.29, and paid losses amounts to $3,902,651.29. Assured life companies received in premiums and assessments $275,376.23, and paid losses $52,756,411. The fire companies received in premiums $355,940.37, and paid losses amounts to $183,792.66. These receipts represent gross premiums. The business, as a whole, showed an increase over the business of 1901 of about 12 per cent. The State's revenue from the business done in 1902 amounts to $107, 954.76, against $96,648 in 1901.

Appropriations.—For 1903 the appropriations were as follows: Academy for the Blind, $20, 000; College for Negro Youth, at Savannah, $6,000; contingent fund, $10,675.36; contingent fund for Supreme Court, $1,900.65; State Insane Asylum, $250,000; expense fund for trustees of the asylum, $2,152.73; geological fund, $7,300; printing fund for Geological Department, $962.59; Georgia Normal and Industrial School, $22,500; horticultural fund, $4,927; insurance on public buildings, $25,903.91; North Georgia Agricultural and Mechanical College, $10,000.75; prison fund, $120,081.60; public schools, $180,46; public building fund, $17,847.80; publishing Supreme Court reports, $5,475.32; reprinting Su-
preme Court reports, $5,954.15; School for the Deaf, $25,000; public schools, $1,574,122.02; Georgia School of Technology, $40,000; Soldiers' Home fund, $15,000; for new building, $19,500; special incidental appropriations, $4,410.87; State Normal School, $21,300; State University, $8,000; expense fund for trustees of the university, $478.64; disabled soldiers' pensions, $189, 035; indigent soldiers' pensions, $302,340; indigent widows' pensions, $78,180; widows' pensions, $193,200. In addition to the regular appropriations, $84,952.81 was expended on new buildings for the State Insane Asylum at Milledgeville; $29,000 was set aside for buildings for the State University at Athens; the civil government cost $129,908.61; $500 was spent on an exhibit of Georgia minerals for the Charleston Exposition, and the legislative pay-rolls amounted to $70,826.

Banks.—The year 1902 was prosperous with the banks in Georgia. In the twelve months 23 new State banks were chartered. The aggregate paid-
in capital of State banks for the year was $87,125.

In the past few years many small banking concerns have been established in the more pros-
perous agricultural districts, and all are reported as in excellent condition. Data prepared and on
file in the Treasurer's office shows that the farmers are the heaviest class of depositors. The following is an item by item report of the condition of the banking institutions of the State in 1902:

The resources were: Loans, $365,657,560.63; overdrafts, $217,176.01; bonds and stocks, $2,371,286; real estate, furniture, and fixtures, $1,825,341.30; due from banks and bankers, $4,954,560.71; cash on hand, $2,823,757.86; other items, $92,696.13; total, $48,991,076.64. The liabilities were: Capital paid in, $9,712,787; surplus and net profits, $4,286,064.49; due banks and bankers, $2,066,864.27; due unpaid dividends, $14,691; due depositors, $57,717,347.52; rediscounts, $1,336,958; bills payable, $3,726,402; other items, $68,632.36; total, $46,981,076.64.

Education.—The State School Commissioner in his annual report issued in September, 1902, gives the total enrolment in the public schools of the State at 502,887. The State fund for school purposes was $1,538,955.17, an increase of $33,828.17 over 1901. The total enrolment in the common schools was 439,658, and in high schools 63,242. This was a total increase of 10,570 for the common schools and 8,132 for the local schools. The average attendance in the common schools was 269.4, and the number of teachers in the common schools was 3,424, an increase of 36 cents over 1901. The cost per capita in the local school system was $11.33, a decrease of 31 cents over 1901.

The amount of the school fund received by common schools was $1,283,924.40, an increase of $12,288.29 over 1901, while the amount of State fund paid by local districts was $229,177.40, an increase of $40,152.73 over 1901. The amount raised by local taxation for school purposes was $135,433.80. In 1902 334 new schoolhouses were built in the State at a cost of $245,380. Nearly all these are in country districts, and most of the money for the schoolhouses was raised by the people of the community in which the houses were located.

The number of children in Georgia of school age according to the last census was 660,870. There are 7,709 schools in the common-school system, an increase of 658 in one year, and 368 in the local-school system, an increase of 60. The number of teachers in the common-school system is 9,180, and those of the local-school system number 1,330. The average yearly salary paid to teachers in the common-school system is $129.35. Of every 100 children of school age in Georgia, 45 are black and 55 are white, and the blacks now get an amount of about 30 percent of the school fund.

It is the general belief that the greatest stumbling-block in the way of the negro's education in the State is the lack of negro teachers capable of doing justice to other members of their race. More than $5,000 is distributed to negro schools from the Slater educational fund, while the Peabody fund gives $6,000 to white schools and $1,500 to negro schools in the State. The amount invested by the Slater North in institutions for the higher education of the Georgia negro is estimated to be not less than $2,000,000. All the schools of like character for whites in the State are not worth anywhere near that sum.

Manufactures.—In 1902 there was a great increase of manufacturing industries in the State. New cotton-manufacturing plants were established, and the aggregate value of these was $250,000, against $18,904,964 in 1901. A cement plant was established at Hartwell, and more than $1,000,000 was expended on it. At Columbus several million dollars were invested in electric and power supplied by Chattooga river, while an electric lighting and power plant, upon which about $1,600,000 was expended, was established on the site of the condition of the cotton factories of the State, which, up to that period, had been sending large quantities of cotton goods to the markets of the East. Since the trade has been resumed much new machinery has been installed, so that the cotton factories of the State are now able to turn out a fine grade of goods. With the markets of the East closed, Georgia goods were forced into competition with the cotton goods of the New England States and suffered by the comparison.

In some of the principal cities of Georgia companies have been organized for the manufacture of almost all kinds of goods. Large furniture factories are in operation in different sections, and the goods are being sent to the Northern and Western markets.

Agriculture.—The farmers are giving more attention to the cultivation of grain and vegetables, while the oats and barley was 63,242. This was a total increase of 10,570 for the common schools and 8,132 for the local schools. The average attendance in the common schools was 269.4, and the number of teachers in the common schools was 3,424, an increase of 36 cents over 1901. The cost per capita in the local school system was $11.33, a decrease of 31 cents over 1901.

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it is impossible to administer that system properly and disburse this large sum of money without some way of selecting those who are entitled to it. The pension rolls, under existing laws, are being burdened with men who never saw the enemy, and, in many instances, deserts. Another great need is to provide by law for the appointment of official examiners of all applicants for pensions not local in character, and pay them for their work.

Prisons.—The prison system in force in the State is that of leasing out the convicts to mine-owners, lumber-mills, turpentine-farms, and, in fact, to any persons who offer bids for their hire. From the hire of the convicts in 1902 the State received $202,329.25. On Oct. 1, 1902, the number of convicts in the Georgia Penitentiary was 2,351, consisting of 252 white men and 5 white women, 1,075 negro men and 80 negro women, an increase of 70 during the year. There were 1,074 convicts who could read and write, 184 who could read only, and 1,087 wholly illiterate. The number of deaths in the year was 69, against 5 in 1901, the rate being 2.3 per cent. A farm is operated by the Prison Commission near Milledgeville, where the women, children, and old, infirm, and diseased men are sent. The capital cost is $30.74 per convict per month. The farm was $19,331.93, while the actual money paid out for farm purposes was $32,719.48. In February, 1902, the Prison Commission purchased 31 acres adjoining the farm.

There were 2,221 misdemeanor convicts undergoing punishment in county chain-gangs, of which 103 were white men, 5 white women, 2,010 negro men, and 105 negro women. Two of these chain-gangs, with an aggregate of 965 convicts, were worked for private individuals, says the Prison Commission, in most instances contrary to the law. Thirty-three chain-gangs, with an aggregate of 1,256 convicts, were worked on public works.

The State leases its convicts for a term of five years, receiving about $100 a year per capita. The contractors, in many instances, have sublet these convicts, receiving as high as $250 per capita.

Military.—The State troops consist of about 5,000 men, organized into 5 regiments of infantry of 12 companies each, 1 regiment of cavalry of 10 troops, 1 battalion of heavy artillery of 4 companies, 2 battalions of light artillery, 1 naval battery of 2 companies, 1 battalion of negro troops composed of 7 companies of infantry, and 1 light battery of artillery. Each company's minimum strength is 40 men, and the average is about 50 men. The infantry are armed with the Springfield rifle, caliber 0.45; the cavalry with the 0.45-caliber carbines; the negro troops with 0.50-caliber Springfield rifles. The naval militia is equipped with 0.45-caliber Lee rifles. The heavy artillery is armed and equipped as infantry. One light battery is armed with 2 3.2-inch caliber breech-loading cannon. The other light batteries are armed with the muzzle-loading cannon. No camp has been held under State auspices since 1897, owing to lack of funds.

The new military law, which became effective in the latter part of December, 1902, provides that in case of call for troops by the State the Governor shall order out the militia regiments as they are now organized. In the event of war the State can furnish, organized, trained, and fairly equipped, not fewer than 4,000 men in one week. The enrollment is now one year; the change from the two-year term was made by the Legislature in December, 1902.

Confederate Soldiers’ Home.—A comparatively short time after the home for helpless Confederate veterans was opened, it was burned. In the latter part of 1902 it was rebuilt and furnished at a cost of $29,012.70, of which amount $18,500 was from the insurance, and the old building the rest was contributed by private citizens. The home stands in a beautifully wooded tract of 119 acres near Atlanta. It now has 63 inmates, and 8 will return when their lease expires. The cost of maintenance has been about $10 a month per capita. In 1901 the Legislature appropriated $16,000 for a maintenance fund for the home, and in 1902 the State authorities set aside a like amount.

Political.—The Democratic party held its State convention in Atlanta on July 2, 1902. The distinctive portion of the platform adopted was this: "We favor the enactment of such laws as will afford equal and exact justice to labor and capital alike, and the administration of those laws in such a spirit of fairness as will protect and foster the interests which are already in the State and encourage the establishment of new enterprises, thereby affording larger and more extended fields of industry for our citizens. We do not believe the cause of labor's betterment should be made a political issue in this State. The best interests of the people, as well as the furtherance of that cause, demand the complete separation of that question from personal party questions. We approve the wisdom and safety of the non-partisan policy which characterizes our present legislation upon this subject, and commend the same to the people of the State."

The following ticket was nominated: For Governor, Joseph M. Terrell; Attorney-General, John C. Hart; Comptroller-General, W. A. Wright; Secretary of State, Hiram Philips; and 100 other State officials. The convention then adjourned.

Hawaiian Agriculture.—O. B. Stevens; Prayer Commissioner, Thomas Eaton; Treasurer, Robert E. Park; State School Commissioner, W. B. Merritt; Justice of Supreme Court, Samuel Lumpkin and A. J. Cobb.

The Populist party held its State convention in Atlanta on Aug. 12, 1902. No platform was announced. James K. Hines was nominated for Governor, but he declined the nomination. The other men on the ticket nominated were: For Secretary of State, B. F. Lee; Treasurer, J. H. Taylor; Comptroller-General, W. W. Wilson; Attorney-General, P. F. Rickard; and Commissioner of Agriculture, W. L. Peck; State School Commissioner, S. H. Zellner.

At the election in October the Democratic ticket was successful. The Populist vote was small.

HAWAI'I, a Territory of the United States, formerly an independent kingdom, proclaimed a republic in 1894, and on Aug. 12, 1886, annexed to the United States in accordance with the annexation treaty signed at Washington on June 16, 1897. On June 14, 1900, the islands were organized as a Territory in accordance with an act of Congress, approved April 30, 1900, which admitted to United States citizenship all persons who at the date of the proclamation of annexation were citizens of the Hawaiian Republic.

Sanford B. Dole, President of the Hawaiian Republic, was appointed Governor of the Territory.

Area and Population.—The area and population of the islands according to the census of 1900 are given in the following table:

<table>
<thead>
<tr>
<th>ISLANDS</th>
<th>Square miles</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oahu</td>
<td>600</td>
<td>55,504</td>
</tr>
<tr>
<td>Hawaii</td>
<td>4,200</td>
<td>45,545</td>
</tr>
<tr>
<td>Kauai</td>
<td>500</td>
<td>30,784</td>
</tr>
<tr>
<td>Niihau</td>
<td>97</td>
<td>35,416</td>
</tr>
<tr>
<td>Maui</td>
<td>760</td>
<td>2,806</td>
</tr>
<tr>
<td>Molokai</td>
<td>570</td>
<td>1,591</td>
</tr>
<tr>
<td>Lanai</td>
<td>150</td>
<td>2,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,877</strong></td>
<td><strong>154,001</strong></td>
</tr>
</tbody>
</table>
The increase in population since 1890 was 44,981, or 41.2 per cent. The number of Hawaiians in 1900 was 29,834, a decrease of 1,185 in four years; part-Hawaiians, 7,635, a decrease of 666; whites, 26,593, an increase of 6,105; Japanese, 62,122, an increase of 30,793; Chinese, 25,742, an increase of 6,360. Honolulu, the capital and chief port, situated on the island of Oahu, had 39,905 inhabitants in 1900.

There were 189 schools in 1899, having 15,460 pupils, of whom 5,043 were Hawaiian, 2,721 part-Hawaiian, 5,822 Portuguese, 2,437 Asiatics, 601 American, 213 British, and 337 German, and having 544 teachers, of whom 282 were American, 130 Hawaiian and part-Hawaiian, and 66 British.

Commerce and Production.—From Jan. 1 to June 14, 1900, the value of the imports was $11,988,000, compared with $19,059,000 for the entire year 1899. The value of exports of Hawaiian products for the year 1900 was $25,461,000, compared with $22,629,000 for the previous year. Sugar was exported in 1900 of the value of $23,771,344; coffee, $176,749; hides and tallow, $88,182; bananas and pineapples, $45,005; rice, $24,077. Of the total of the year 1900 amounts reported $1,156,554 came from Great Britain, $453,727 from Australia and New Zealand, $136,585 from Canada, and the rest almost exclusively from the United States. The chief imports were provisions, groceries, cereals, clothing, lumber, machinery, hardware, and cotton cloth. Of the exports of 1900 the United States received 99.6 per cent. By the year ending June 30, 1900, the exports were $3,000,000 less in value than in the previous year, owing mainly to lower prices for sugar, though most of the exports fell off.

Navigation.—Steamship lines run between Honolulu and San Francisco and the ports of Australasia, Japan, and China. The number of vessels entered during 1900 was 565, of 567,265 tons, having increased from 396 of 447,997 tons, in 1896.

Railroads and Telegraphs.—There are railroads in Hawaii, Maui, and Oahu islands having a total length of 100 miles. Telegraph-lines connect different points in Oahu, Hawaii, and Maui, and a cable is laid between the two former islands. The Marconi wireless telegraph was tried in the spring of 1901 for communication with the other islands. The total length of telegraph-lines is 250 miles. The telephone was introduced early into Honolulu and is used by all.

IDAHO, a Northwestern State, admitted to the Union July 3, 1890; area, 48,000 square miles; population in 1890, 94,385; in 1900, 161,772. Capital, Boise City.

Governor.—The following were the State officers during the year: Governor, Frank W. Hunt; Lieutenant-Governor, Thomas F. Terrell; Secretary of State, Charles J. Bassett; Auditor, Egbert W. Jones; Treasurer, John J. Plumer; Attorney-General, Frank Martin; Adjutant-General, J. L. Weaver; Superintendent of Public Instruction, Charles E. French; Mine Inspector, Martin H. Jacobs; State Engineer, D. W. Ross; Chief Justice of the Supreme Court, Ralph W. Quaries; Associate Justices, I. H. Sullivan and Charles O. Stockdale; Clerk, Solomon Hasbrouck.

The State officers are elected in even-numbered years, the term beginning in January of odd-numbered years. The Legislature holds biennial sessions beginning in January of odd-numbered years. Sessions are not limited, but members draw pay for only sixty days.

Valuation.—The State Auditor completed in September the computations of the assessed valuation of the State as finally fixed after the changes made by the State board. The grand total of the State was $61,291,896.36, an increase of $9,531,138.17 over the preceding year. The greatest increase was in Shoshone County—$4,547,419.96. Cassia and Elmore both showed decrease. In 1900 Cassia was ahead of the other counties in percentage of increase, but it has been slipping back ever since. Fremont County, which has developed very rapidly, did not show the gain in its assessment, having made an increase of only $92,566.45. The total of the assessments by counties reported to the State Board of Equalization was $60,282,704.60. The assessment as equalized by the State board was $51,648,827.76. The figures for railroads were $9,392,184.65; for telephones, $148,132.60; for telegraphs, $102,531.30; total as equalized, $61,291,896.36; assessment in 1901, $51,440,758.19; increase, $9,851,138.17.

The value of merchandise in the State, as equalized by the State board, was $3,041,980.23. The valuation of patented lands was given by the State board as $14,142,787.15; by the assessors at $14,463,586.96. The acreage was 2,981,286. The number of acres taxed and branches not heretofore in the first five months of the year was 34,099, the fees paid being $2,240. The entries for timber and stone land for the same period were about the same.

The Pacific and Northern Railroad was assessed at $3,500 a mile, a reduction of $250 a mile from last year's valuation. The Clearwater branch was assessed at the same amount last year. The Western Union Company's telegraph-lines were valued and assessed at $60 a mile for pole and first wire, and $15 for each additional wire, the valuation last year being $55 and $12 a mile respectively. The telephone-lines of the Rocky Mountain Bell Company and of the Independent Company, except the branch lines already assessed, were valued and assessed at $65 a mile for pole and first wire, and $15 a mile for each additional wire. The valuation of the Salmon river branch of the Oregon Short Line was fixed at $2,500 a mile. The Boise, Nampa and Owyhee and Idaho Northern roads were valued at $2,250 a mile, a reduction in the case of the first line of $500 a mile. The assessments on all main lines of railroad and branches not heretofore fixed were fixed at the same rate as in 1901, except the main lines of the Northern companies, which were assessed at $8,500 a mile, an increase of $230 a mile on the Great Northern for a distance of 80 miles, and of $230 on the Northern Pacific for 84 miles.

The tax levy was fixed at 46 mills. The rate in 1901 was 62 mills. The amount to be raised to run the State government was $245,000.

Education.—The semiannual apportionment of the public-school fund was made by the State Superintendent in July. The apportionment was made by counties, the total amount $576,975. This sum exceeded the apportionment for the same period in 1901 by $4,996.

Penitentiary.—According to the report of the warden of the State Penitentiary, the number of convicts on Nov. 1 was 120. Four convicts were received and 3 were discharged in October, during which month the bills presented and allowed on the maintenance fund amounted to $2,034.88, and on the improvement fund $50.

Mining.—A great mining revival set in this year, largely owing to the discoveries in Thunder mountain, which is expected to make Idaho one of the chief gold-producing regions of the world. Idaho has a greater area of gold-bearing territory than any other State in the Union, one
section of which, as large as the State of Pennsylvania, was very little prospected until this year, during which there has been an immense influx of prospectors. The Thunder mountain district has been now extended until it covers half a dozen important mineral sections, in which fine ledges in great number have been opened. The same work is going on beyond the Thunder range. Important discoveries have been made in Custer and Lemhi Counties. In Elmore County gold was developed in sections not before prospected, especially at Skeleton creek. Blaine County was invaded by an army of prospectors, who met with great success about the head waters of Boise and Wood rivers. Valuable gold properties were also opened in Nez, Pelz, Boise, Owyhee, Washington, and Warren Counties, some of the discoveries in Boise County being phenomenal. Several towns have sprung up in the Thunder mountain district. A postmaster was appointed at Roosevelt in February, and another at the Dewey mine in March. In April the mail-route from Idaho City to Roosevelt and Thunder mountain was selected by the Post-Office Department. The great ore bodies in the Thunder mountain district are all proved up in the company, but has not been explored to a depth of 150 feet. It is several hundred feet wide, and the grade of the ore is such that all the stamps the company can put up can be kept in operation. Nearly two miles eastward the same belt of ore is found on the Sunny-side group, and it has been traced more than two miles westward.

Wood.—The reports of the deputy inspectors to the State inspector in January show that there were 2,700,000 sheep in the State at the beginning of 1901, which number had increased to more than 3,000,000 in January, 1902. The wool clipped was 17,745,000 pounds; the amount received for it by the growers was $1,855,000; the number of sheep and lambs shipped was 796,991; the amount received for them was $1,980,000; the total amount received by Idaho sheep men for wool, sheep, and lambs was $3,460,000. As in the markets of the East the wool and mutton realized $3.75 to $4.00 per hundred, the total value at the point of consumption was $4,775,000.

A proclamation was issued by the Governor in March, establishing against sheep from neighboring States where scab was prevalent. The proclamation differed in some respects from those issued in former years, as it included only the county of Lemhi, the Federal inspectors having made provision under which all sheep approaching the line should be dipped and held twelve days before being permitted to cross, their admission then being optional with the Idaho deputy, who should determine whether there was danger of infection from any band.

Oll.—The Fossil Consolidated Land Company, Limited, was organized in March with a capital of $1,000,000 to operate in the Fossil oil-fields. It controls 1,010 acres in the district, and intends to purchase other oil-well lands in the neighborhood, for which purpose it has set aside a portion of its stock. The Idaho-Wyoming Oil Company increased its capital stock from $1,000,000 to $2,000,000. Oil was found in 11 assessment holes in November, in some at a depth of 25 feet. In the Spring valley district several wells had become daily producers; one of them was producing 45 barrels a day of a very high grade. This well is reported from the Holm Co.

Irrigation.—The Irrigation Department of the Census Bureau published the compilation for Idaho on June 15. For irrigation purposes the department has divided the State into 2 agricultural regions, the arid and the humid—the dividing lines beginning at the southern and eastern boundaries of Idaho County. The humid division contains vast areas of forest, and the rainfall is usually sufficient for the raising of general farm crops and fruits. The great Camas prairie of Idaho County, the high plateaus of Nez Perce, and the rolling hills of Lakah produce more than half the cereals raised in the State, and yield better crops than are grown in the southern irrigated counties. There were 6,803 farms in the State in 1890, covering 1,382,550 acres. Of other farms, 1,820 were in the humid section and 4,753 in the arid section. In 1900 there were 17,471 farms in the State—6,737 in the humid region, and 10,734 in the arid section. Of the 55,946,890 acres of land surface, 3 per cent. were included in farms, and only 2.6 per cent. were improved. Of the improved land 1,888,590 acres were outside the Indian reservations. The irrigated land constitutes 42.6 per cent. of the improved land. The investment by irrigation canals increased in ten years from $1,029,000 to $4,168,352. There are 36 canals, involving a constructive expense of $497,975, which distributed no water, and 16 canals involving $440,000, were failures on account of mismanagement. But the acreage under these ditches, which will be brought soon under cultivation, will undoubtedly be larger than the area now irrigated by all the ditches constructed since 1890. In 1890 the acres irrigated, outside the reservations, numbered 217,006; in 1900, 602,563. At a low estimate, the farm wealth of the State in 1890 was $1,029,000, and in 1900, $12,000,000 by irrigation. The number of acres of irrigated land for each mile of ditch is 121, while the number of acres under ditch for each mile is 270. The average cost of constructing the ditches was about $1,028 a mile, $3.79 an acre of land under ditch, and $8.46 an acre of land actually irrigated in 1899.

The State Land Board passed in April the application of the Washington Irrigation Company, which asked for the segregation of 100,000 acres of land under the Carey act. The land lies along Snake river, between Minidoka and the river. The company proposes to expend $750,000 in reclaiming the tract, which it asked the land board to withdraw from settlement. The board granted the application.

New Companies.—The report of the Secretary of State for the quarter ending Sept. 30 shows that the total amount received as fees for the quarter was $1,782.25, compared with the receipts for the same quarter in 1900, $704.70. The business of the office had more than doubled as a result of the growth and general business activity all over the State. The report shows that 33 notarial commissions were issued in the quarter, quadrupling the filings of 1900. The receipts for the present year will be more than $8,000. The increase in corporations is apparently the beginning of a vast development of the mineral wealth of the State. Among the more important incorporations during the year were the Vindicate Mining Company, of Mullan, with a capital of $1,000,000; the Golden Eagle Mining Company, of Meadows, with a capital of $3,000,000; the Flagstaff Mining Company, of Wallace, with a capital of $1,000,000; the Idaho Mining and Development Company, with a capital of $1,000,000; the Blackfoot Gold-Mining and Development Company, of Boise, capital $1,000,000; the Greyhound Mining Company, capital $1,000,000; the Stewart Mining Company, of Kellogg, capital $1,000,000; the Bullion Mining Company, limited, of Wallace, capital $1,000,000; the Maryland
Gold-Mining and Development Company, at Hail-
ley, capital $2,500,000; the Alice Mining Com-
pany, of Wallace, capital $1,000,000; the South
Sinker Gold-Mining Company, of Silver City, capi-
tal $1,000,000; the Idaho Mining Company, of
Wallace, capital $1,500,000; the Ajax Mining Com-
pany, capital $1,600,000; the Idaho-Iowa
Lateral and Reservoir Company for reclaimer
the desert lands of the looseka river valley;
ley of Idaho, capital $100,000; the Idaho Pros-
pects' Finance Company, of Boise, capital
$2,000,000; the Wake-Up-Jim Gold-Mining Com-
pany, capital $1,200,000; the Idaho Exploration
and Development Company, of Weiser, capital
$1,000,000.

Geological Maps.—The United States Geologi-
cal Survey issued in September reprints of the
Bear valley and Idaho basin map sheets, which
cover portions of the mountainous country of
western Idaho. Portions of Idaho, Custer, Boise,
Emore, and Alturas Counties are included in the
maps, as are also the Idaho City city region and the
rugged crest of the Sawtooth range for much of
its length. By the use of contour lines the moun-
tainous topography of the district is admirably
represented. The maps are large enough, about
half an inch to the mile, and are uniform
with those issued of other parts of the State.

Intermountain Fair.—The Idaho Intermoun-
tain Fair was opened at Boise, Oct. 22, and
was thronged with visitors. The mining exhibit
was particularly fine, embracing ores and precious
stones from every part of the globe. The agri-
cultural and horticultural exhibit, which occu-
pied the whole right-hand side of the building,
contained chiefly the products of the State in
these lines, and displayed many splendid speci-
mens of Idaho fruits and vegetables. The qual-
ity of the entries in the dairy department was also
exceptionally fine. The stock exhibit attracted
much attention, the exhibit of sheep excelling
anything of a similar sort that had previously
been shown in the State. The main building has
four wings, each 50 feet wide and 150 feet long.
The grand stand is an immense structure, capable
of holding 20,000 persons. There are several other
fine structures on the grounds, which are almost
encircled by box-stalls and pens for cattle.

Land Office.—The report of the Land Office for
January shows that the amount turned into the State
Treasury $219,620.82 in 1901. Of this, $137,189
was proceeds of sale of timber lands, the remainder
representing sale of school and other State lands.
The number of school, normal-school, and
university, and school of science lands sold was
15,997. In addition to the amount turned into the
general fund of the State, there was turned into
the common-school fund, interest earned upon the
general school fund, the sum of $45,609.77.

Legal Decisions.—In March the United States
Circuit Court handed down a decision that is con-
sidered of great interest to the mining interests
of the State. In The Empire State-Idaho Mining
and Development Company v. The Bunker Hill
and Sullivan Mining and Concentrating Company,
Idaho, judgment was reversed and cause remanded
with directions to enter judgment for the defend-
ant. This was what is called the King case. It
turned upon the extralateral rights of two claims
located side by side upon the same ledge, each
covering a portion of a very wide outcrop, the end
lines of the claims not being parallel. Judge
Beatty held that the lines of the older location
must turn. The location was the Viola, on the
great Bunker Hill vein. The adjoining claim
was the San Carlos. The point in contro-
versy was the ownership of ore bodies far below
the surface. As it seems difficult to cleave a
vein in two, permitting one owner to follow the
hanging-wall portion between lines in one di-
rection and giving the foot-wall owner the right
to follow it being wall lines laid in a greatly differ-
cent course, there was great interest in the decision
of this case.

In December the Supreme Court reversed the de-
cision of the lower court in the case of The
Lincoln Hardware and Implement Com-
pany. An interesting question of the mortgaging
of community property by the husband and the
status of such mortgage after the death of the
wife was involved. Kindall and two others pur-
based certain agricultural implements from the
Hardware and Implement Company and gave
chattel mortgages to secure their notes given in
payment. One of these mortgages covered the
plots then growing and to be grown on a certain
piece of land that was the community property
of Kindall and his wife, this mortgage being executed
without his wife joining in it. The Hardware
and Implement Company foreclosed the mortgage.
Kindall and his wife then began this action to en-
join the company from foreclosing the mortgage.
While this action was pending, Kindall died.
The court then permitted Kindall to prosecute the
injunction proceedings alone. The defense held
that, though the mortgage on the community
property might not have been good while Mrs.
Kindall lived, it was valid against him after her
death, a view held by the lower court and re-
versed by the Supreme Court.

Fort Hall Indian Reservation.—The Fort
Hall Indian Reservation was opened to settlers
June 17. It consists of 418,000 acres, about 100-
000 being fine farming land, and the rest known
to contain abundant mineral deposits. Nearly
3,000 prospective settlers and miners
rushed into the reservation when the sun
reached the meridian, raced madly for favored lo-
cations, and then ran back to Blackfoot to regis-
ter their claims at the Land Office. Although
the lands within the 6-mile limit of Pocatello had
not been thrown open to settlement, they were
sold to those who had claimed them in the usual
ways, and the hills east of the city swarmed with prospectors.

About 1,000 claims were staked on the first day
within 6 miles of Pocatello. The Fort Hall treaty
of April 22, 1868, provided that the lands should be
offered to the Indians for sale at the assessed value
at the time of their own selection of the lands ceded.
This excited much dissatisfaction among the white
settlers, who asserted that allotments had been made
in half-breeds and to Indians not belonging to the
reservation.

Political.—The Republican State Convention
met in Boise, Aug. 20, and nominated this ticket:
For Governor, John T. Morrison; Lieutenant-Gov-
ernor, James N. Stevens; Secretary of State, Will
H. Gibson; State Auditor, Theodore Turner; State
Treasurer, H. N. Coffin; Attorney-General, John
A. Bagley; Superintendent of Public Instruction,
Miss Mae L. Scott; Inspector of Mines, Robert
Bell; Justice Supreme Court, J. F. Ailshe; Con-
gress, Burton L. French.

The platform underlined the foreign policy of the
administration; denounced "the unpatriotic atti-
dute of the Democratic party" toward the army
and navy; declared that "the wisdom of the pro-
tective policy was manifest by its results," but favored a revision of the
tariff "which will place upon the free list
every article and product controlled by any mon-
The presidents of the State boards were as follow: Agriculture, Martin Conrad; Railroad and Warehouse Commission, James S. Neville; Pharmacy, Willis L. Ling; and Banking enabling Congress "to effectually regulate and suppress" all injurious combinations and aggregations of capital; condemned the present administration of the State, of its property, and its control, and its failure to provide adequate public policy; and the introduction of political parties into the management of educational establishments; and it inveighed against the apportionment for legislative representation made by the Federal Constitution for the counties for 1892 was $1,030,292,435. This was the valuation as given by the Board of Equalization; that given by the local assessors was only $292,517,117. The valuation of the Mississinewa stock of corporations other than railroad stock was $22,705,627. The equalized value of all railroad property, including rolling-stock, improvements, and right of way, was $86,270,000.

**Banks.**—The following statement of earnings and dividends is tabulated from reports of 188 State banks of Illinois that were doing business for the twelve months ending June 30, 1902: Capital, July 29, 1901, $19,055,000; surplus, $10, $25,725; undivided profits, $4,429,580; total dividends, consisting of loans, bonds, stocks, and other investments, $4,082,057; at the beginning of the year the constitution provided for the election of United States Senators by the people; recommended the wise and economical administration of the present State Government, shown by the fact that the State has been brought to a condition according to which it is managed on a cash basis; invited voters to compare the conduct of the business of the State Land Board under Republican and Democratic administration; favored an amendment to the State Constitution providing for initiative and referendum; favored an eight-hour day for all underground employees, an employment of married women equal property rights with men.

**INDEPENDE**

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opoly, and such other articles and products as are beyond the need of protection"; declared that trusts are a great and growing evil, and favored an amendment to the Constitution providing for initiative and referendum; favored the Fowler currency banking bill and government by injunction; favored Government ownership of railroad, telegraph, and telephone lines; demanded an amendment to the Constitution providing for the election of United States Senators by the people; commended the wise and economical administration of the present State Government, shown by the fact that the State has been brought to a condition according to which it is managed on a cash basis; invited voters to compare the conduct of the business of the State Land Board under Republican and Democratic administration; favored an amendment to the State Constitution providing for initiative and referendum; favored an eight-hour day for all underground employees, an employment of married women equal property rights with men.

The Socialist, Populist, and Prohibition parties also nominated tickets. The candidates on the Republican ticket were received in the November election. The Republican candidate for Governor had 31,936 votes; the Democratic, 26,019. The election returns gave the Republicans majorities in both houses of the Legislature.

ILLINOIS, a Western State, admitted to the Union Dec. 3, 1818; area, 56,650 square miles. The population, according to each decennial census, was 55,162 in 1820; 157,445 in 1830; 476,193 in 1840; 851,470 in 1850; 1,717,951 in 1860; 2,539,981 in 1870; 3,077,871 in 1880; 3,826,351 in 1890; and 4,281,560 in 1900. Capital, Springfield.

The following were the State officers during the year: Governor, Richard Yates; Lieutenant-Governor, William A. Northcott; Secretary of State, James A. Rose; Auditor, James S. McCulloch; Treasurer, Fred A. Busse; Attorney-General, H. J. Hamlin; Adjutant-General, James B. Smith; Superintendent of Insurance, Henry Yates; Printer Expert, Charles P. Cunningham; and Recorder of the Supreme Court. Carroll C. Boggs, James B. Ricks, Jacob C. Wilkins, Joseph N. Carter, John P. Hand, James H. Cartwright, Benjamin D. Magruder.

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may be classified as follows: Illinois joint-stock fire and marine companies, 6; Illinois mutual fire-insurance companies, 9; joint-stock fire and marine insurance companies of other States, 112; foreign fire and marine insurance companies, 42; mutual fire-insurance companies of other States, 12; total, 181. This shows a net loss of 17 companies as compared with the number authorized to transact business in this State at the date of the last report.

The aggregate capital stock and deposits of the stock and foreign companies doing business in the State at this date is $3,788,209, less than the aggregate capital at the date of the last report. The total assets of the companies are $414,016,880, an increase over the previous year of $3,417,358. The total surplus was $49,670,553, a decrease of $3,151,690. The total amount of capital of these companies is given as $44,230,060, a decrease from the previous year of $3,786,500.

The amount of reserves written off was $1,472,902,925, a decrease of $15,212,163. The net excess of receipts over disbursements for 1901 was $15,633,574.

The risks in force at the close of the year were $23,570,392,918, an increase of $365,667,156.

The business done in the trunk line fire and marine life insurance companies shows an increase of 8,339 policies, and $7,178,998 more insurance, exclusive of industrial business, over the previous year. The net increase of insurance in force on new and renewal insurance was 49 per cent., as against 44 per cent. in 1900. The total premiums received, apart from industrial business, amounted to $18,441,968, an increase of $1,510,789, or 9.1 per cent. on the bushel on Aug. 1 to $6,150,789.

The entire industrial business written shows an increase of 6,869 policies and $435,885 of insurance. The total business of all life-insurance companies shows an increase in income of $48,200,310, in expenditures of $27,559,083, in assets of $155,409,412, in liabilities of $110,869,786, and an increase in surplus of $44,539,629.

The 44 fidelity, surety, and casualty companies show the following aggregate results: Capital, $20,354,400; admitted assets, $128,335,984; liabilities, $100,463,423; net surplus, $21,872,561; net income, $5,446,761.

There were at the date of this report 22 assessment life and 6 assessment accident companies doing business in the State, with total admitted assets of: Life, $17,304,221; accident, $263,231.

The total admitted assets of 105 fraternal beneficiaries in the State are $21,700,875.

The report of the Railroad and Warehouse Commission for the year ending June 30, 1901, shows the total mileage of steam-railroads in the State to be 17,351 miles, an increase over 1900 of 571 miles. The mileage of surface and elevated electric roads is 218 miles, which is an increase over last year of 69 miles. The total capital of all steam-railroads in Illinois is $5,140,821,620, an increase of $723,169,620. The increase was not so great as during the previous year, but is considered remarkable. The capital stock of elevated and surface lines was $88,386,450, an increase during the year of $5,328,150. Propositionally this is a far greater increase than is shown by the steam-railroads. The total amount of taxes paid by the steam-railways was 4,725,332, an increase of $51,721. The taxes paid by surface and elevated electric roads was $153,169, an increase of $61,929.

For the first time the State Department has been able to accumulate information as to the dollar-wages paid by the railroads. The highest average salary is paid to general officers, and amounts to $16 a day, and the lowest average salary is paid to trackmen, and is $1.28. The highest average salary paid by surface and elevated electric roads is $6.40, and the lowest is $1.43 a day.

The number of passengers carried on the steam-rails was 40,085,781, and the passenger earnings per mile were $2.402, an increase per mile of $2.15. The number of tons of freight handled was 110,177,821. The number of persons employed on steam-railroads in the State of Illinois was 88,583, to whom was paid in salaries $51,999,886, an increase of $639,176 over the year 1900.

Agricultural.—The State Board of Agriculture issued a report, Aug. 1, 1902, showing the condition of the crops and the number of bushels of those already harvested. The area of wheat harvested this season, 1,774,329 acres, is 85,000 acres less than that of 1901; nevertheless the 1902 wheat crop exceeds that of 1901 by 5,475,885 bushels. The total crop, 36,088,783 bushels, is the largest harvested in the State since 1894, when the area was very much larger. The average yield per acre, 21 bushels, is the highest average ever reported. The ruling price of the grain Aug. 1 was 63 cents a bushel, making the value of the entire crop legal tender for $22,900,000. The business done by the life and fire insurance companies shows an increase of 8,339 policies, and $7,178,998 more insurance, exclusive of industrial business, over the previous year. The net increase of insurance in force on new and renewal insurance was 49 per cent., as against 44 per cent. in 1900. The total premiums received, apart from industrial business, amounted to $18,441,968, an increase of $1,510,789, or 9.1 per cent. on the bushel on Aug. 1 to $6,150,789.

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The report of the State Superintendent of Public Instruction for 1902 exhibits the following facts relating to the public schools: The last school census found 1,601,715 persons between the ages of six and twenty-one years. There were 22,273 more boys than girls. The average daily attendance in all grades was 765.057. There are 11,734 school districts in the State, and 12,856 schoolhouses, 169 of them built within the year. But 17 of the pioneer log schoolhouses remain in the State. There were 27,186 teachers employed, at wages averaging $54.55 for men and $54.18 for women. The total expenditures for teachers amounted to $12,192,075.

In the year 1901 the total expenditure for public schools amounted to $20,000,000.

There are 1,008 private schools reported in the State, and 350 high schools. The high schools cost for maintenance $1,531,552, and the total number of pupils in them was 41,961; the number of teachers employed was 1,906, the pay-roll amounting to $1,314,600.

The whole number of persons between the ages of six and twenty-one years reported as unable to read and write was 614.

Mining.—There are 54 coal-producing counties in Illinois. In the year ending July 1, 1902, the total output of 915 mines was 30,021,300 tons. The aggregate value of this coal at the mines was $28,272,690. The total number of employees was 46,005.

Charities.—The bulletin of the State charitable institutions for the quarter ending Sept. 30, 1902, shows the following facts:

The number of inmates present in all the institutions, Sept. 30, was 11,055, the average num-
ber present during the quarter being 10,565. The per capita cost of patronage was $41.11. A comparison of the liabilities and available resources of the institutions shows that the surplus for all on ordinary expense accounts was $101,906. The amount of appropriations provided in the State treasury undrawn Oct. 1, 1902, was $1,588,673.

The number of inmates present in the insane hospitals at the end of the quarter was as follows: Northern, Elgin, 526 males and 607 females, total 1,133; cost to State for quarter, $424,419. Eastern, Kankakee, 1,063 males, 1,040 females, total 2,063; cost to State, $72,150. Central, Jackson- sonville, 880 males, 618 females, total 1,498; cost, $37,870. Southern, Anna, males 576, females 472, total 1,048; cost, $37,245. Western, Watertown, males 355, females 312, total 667; cost, $21,773. Asylum for Incurable Insane, Peoria, males 380, females 320, total 700; cost, $23,346. Asylum for Insane Criminals, 162 males, cost $6,004.

The Illinois Soldiers' and Sailors' Home, at Quincy, had an enrollment of 1,919 inmates. The average per capita cost for the quarter was $34.28. The increase in the cost of living is illustrated by the fact that the average per capita cost last year for the same institution for one quarter was only $29.91.

The Asylum for Feeble-Minded Children, at Lincoln, had 1,984 inmates, 585 males and 499 females. The total cost to the state was $38,406, or $37 per capita net. The balance of cash on hand and cash due Sept. 30, 1902, was $88,898.

The Institution for the Deaf and Dumb, at Jacksonville, had 474 inmates, 292 males and 182 females. Cost per quarter $14,271, or $30 per capita. Surplus, $15,729.

The Institute for the Blind, Jacksonville, had 207 inmates, 124 males and 83 females. The cost to the State was $10,928, or $50 per capita.

The Home for Female Juvenile Offenders, at Geneva, had 200 inmates, maintained at an expense of $44 per capita.

The Soldiers' Orphans' Home, at Normal, had 352 inmates. The Soldiers' Widows' Home, at Bloomington, was maintaining 62 inmates at a cost of $38 per capita.

Fire-Prevention Beef Office.—The free employment offices of Illinois were created in 1899, and the report of work done in the three Chicago offices and the Peoria office in the year 1902 indicates that the militia system was abandoned in favor of regular employment. The total number of male applicants was 30,157, of whom 26,661 secured employment. The number of female applicants was 14,703, of whom 13,520 were successful. A glance at the detailed list of places secured shows the following figures: Female—nurses, 300; chambermaids, 970; general household, 414; factory girls, 812; waitresses, 770; dressers, 793; tailors, 1,085; laborers, 11,506; factory hands, 997; cooks, 463; housemen, 820; janitors, 362.

It is seen that the offices are of greatest benefit to large numbers of whom sought and found employment, and also that increasing numbers of skilled laborers are coming to understand the benefits of the system.

Food Commission.—This board was created in 1899, and consists of a commissioner, an assistant, and 6 inspectors, to enforce the laws in respect to food in public markets and places of public resort. The report for 1902 shows a total of 927 food samples analyzed, of which 527 were found to be pure and 397 were adulterated. It is the duty of the commission to prosecute dealers who are guilty of handling adulterated goods, and, as a result of these analyses, 338 suits were instituted in various courts, and 242 convictions were secured.

Chicago.—Business conditions in Illinois are best indicated by the situation in Chicago, where the business of the State, as well as that of the Mississippi valley, centers. The three business features that come nearest the life of a city—real estate, building, and fire and life insurance—show unparalleled prosperity. Building operations in the last year exceeded by a considerable margin those of any year for eleven years. There has been an average advance of about 15 per cent. in office space, and from 15 to 20 per cent. in store space. The building permits for the year amounted to $48,445,850, compared with $35,432,460 for 1901, the rate of increase being 36.75 per cent.

Insurance has closed a year of notable prosperity. Fire-insurance made an underwriting profit of about 10 per cent. While the premiums have been increased, the losses are still close to 60 per cent. of the premium income. The expenses on Chicago business are about $55,000,000. There has been a gain of more than $1,000,000 in life premiums. Chicago paying more than $11,000,000 in life-insurance. In the aggregate, the citizens of Illinois produced $55,000,000 for insurance of all kinds. The total fire losses for the year in Chicago were $4,812,000. Because of heavy losses, rates have been advanced 25 per cent. on mercantile stores, 10 per cent. on mercantile buildings, and 25 per cent. at the stockyards.

The real-estate market has improved, but not in a ratio to correspond with other things. There has been a sharp demand for central business, and manufacturing property. The notable feature of the market is the demand for factory property, which has advanced from 15 to 20 per cent. The best idea of Chicago's industrial growth is afforded by the value of the permits taken out for factory and warehouse construction, amounting to more than $5,100,000, an increase of 90 per cent. over the year before. The real-estate transfers filed for record aggregate $126,536,745, compared with $114,336,592 for 1901.

Progress on the Chicago river canal has been steady. The work followed closely upon the acquisition of property, and the season's work shows 2,158 linear feet added to the previous amount of 3,57 feet, of the most substantial wharves ever constructed on the river. Three new bascule bridges have been built, and 2 others are nearly completed.

A total of $5,000,000 was spent in track elevation and construction of subways. The number of miles of main track elevated was 7.77, and of other track 30.75 miles.

The year was the busiest in the history of the Chicago Bureau of Charities. The total amount of $40,239 was expended in relief work, distributed among 11,760 families. Of these families 8,400 were not previously registered. Of 15,422 applications for relief investigated by the Chicago Relief and Aid Society, 3,470 were found to be unworthy, and disapproved.

The financial operations in Chicago were large. Deposits in the national and State banks showed a gain of 7 per cent. over 1901. At one time in the year the total deposits were $500,000,000. The Board of Trade closed the year with a surplus of $21,000, compared with $10,805 last year. The clearings for the year were $83,590,507, compared to $74,476,955 for the previous year.
The wholesale dry-goods business surpassed all previous records. An increase of 10 per cent. in the volume of business brought the receipts of the wholesale establishments up to $173,030,000, exceeding the figures of 1901 by more than $15,000,000. The volume of lumber shipments from Chicago was 900,000,000 feet. The local consumption for the year is estimated at $1,175,000.

Arbitration.—The year 1902 marked a distinct advance in arbitration and conciliation in the adjustment of differences between employers and employees. The State Board of Arbitration was created in 1893; but it was hampered in its earlier years by a defective law and did not approach the highest degree of usefulness until within a recent period. With its enlarged powers and efficient membership the board has become an important factor in the industrial world. Its work in 1902 affected nearly all of the more important cities of the State. The most conspicuous results, however, were accomplished in Chicago, where, through the mediation of the board, the most serious labor disturbances of the year were adjusted. These included the strike of the department-store drivers, the strike of the auto-trade stock-hands, and the strike of the freight-handlers. The latter was the more far-reaching in its effects, completely tying up the railroad freight business into and out of Chicago, and affecting the commercial interests of all the cities in the vast territory tributary to that city. The cost of the strike was estimated to be at least $1,000,000 a day, and there was widespread confidence in the success of the State Board of Arbitration in hastening its end. The strike was declared off July 16, having been in effect ten days.

INDIANA.—A Western State, admitted to the Union Dec. 11, 1816; area, 36,350 square miles. The population, according to each decennial census since admission, was 147,176 in 1820; 343,031 in 1830; 683,565 in 1840; 988,416 in 1850; 1,330,428 in 1860; 1,680,637 in 1870; 1,978,301 in 1880; 2,192,404 in 1890; and 2,516,482 in 1900. Capital, Indianapolis.

Government.—The following were the State officers in 1902: Governor, Winfield T. Durbin; Lieutenant-Governor, Newton W. Gilbert; Secretary of State, Union B. Hunt; Auditor, William H. Horsley; Comptroller, Frank L. Jones; Treasurer, Edward W. B. Hamilton; Attorney-General, William L. Taylor; Superintendent of Public Instruction, Frank L. Jones; Adjutant-General, John R. Ward; Commissioner of Insurance, Cyrus W. Black; Commissioner of Public Lands, L. G. Rothchild; Statistician, Benjamin F. Johnson; Geologist, Willis S. Blatchley; Tax Commissioners, J. C. Wingate, Parks M. Martin; Supervisor of Natural Gas, J. C. Leach; Secretary of the Board of Forestry, W. H. Freeman; President of the Board of Health, J. H. Forrest; Factory Inspector, D. F. McBee; Fish and Game Commissioner, Z. T. McSweeney; Secretary of the Board of Charities, Amos W. Butler; Chief Justice of the Supreme Court, James H. Jordan; Associate Justices, John V. Hadley, Alexander Dowling, Leander L. Hooks, Francis E. Baker, succeeded in January by John H. Gillett; Clerk, Robert A. Brown. All the State officials are Republicans.

A Governor is elected once in four years at the time of the presidential election. Other State officers are elected once in two years, in November of the even-numbered years. The Legislature meets biennially in January of the odd-numbered years, and consists of 50 Senators and 190 Representatives.

Finances.—The State received from the General Government in July $365,590.20, the civil war claim. The State debt was reduced this year by $8,187,000, and is now $2,887,015.12, on which the annual interest is $101,565.

The tax duplicate of corporation property assessments in the State this year amounted to $191,078,300.53, an increase of $7,789,778.27.

On account of the failure of the gas supply and the consequent diminution of the value of gas property, the board reduced the assessment of pipeline companies $688,929.36. Telegraph companies' assessments were decreased $39,082.50. Transportation companies, including sleeping-car and refrigerating-car companies, were decreased $29,762.77. The board increased the assessment on steam-railroad property $3,824,836. On the property of electric and street railways it increased assessments $1,902,860. On telephone companies the increase was $923,860. On express companies it was $174,841.50.

The figures on the property of the various classes of corporations were: Telephone companies, $5,005,323.30; telegraph companies, $2,478,183.30; steam-railroads, $1,627,797.87; electric railways, $6,339,312; transportation companies, $846,048.23; express companies, $2,055,913.30; pipeline companies, $8,195.

The assessed value of all property in 1902 was $1,436,305,524. The Auditor estimates that this, together with other sources of revenue, will bring into the treasuries $18,650,000.

Decisions.—By a decision of the Supreme Court in a suit brought by the Auditor to collect taxes on the good-will of the property of a newspaper, the good-will of a business can not be taxed.

By a decision in May the Supreme Court declared the mortgage-deduction law invalid. Two of the judges concurred in a minority report. They insist that the mortgage-deduction law is unconstitutional in four particulars. About 80,000 taxpayers in Indiana are affected by the court's decision. Mortgage deductions are claimed on property amounting to $40,000,000 in value, and the benefit to the taxpayers in deductions under the law will not fall far short of $800,000.

A suit begun by the State in 1872 against the Vandalia Railroad was won in the Supreme Court in November. The Legislature, in an act in 1847, provided that after the stockholders should receive as dividends an amount equal to the sum invested and 7 per cent. per annum, the Legislature might then regulate the tolls, and all net profits thereafter, above a sum sufficient to pay an annual dividend to the stockholders of 7 per cent., should go to the fund. The Vandalia must pay a judgment of $913,905 with interest at 6 per cent. Principal and interest, the judgment amounts to $1,028,143.

The bonded debts of the 5 largest cities of the State are: Indianapolis, $2,446,800; Evansville, $2,155,000; Fort Wayne, $624,800; Terre Haute, $345,000; South Bend, $290,000.

Education.—The number of illiterates in the State in 1900 was 90,539. The percentage of persons between the ages of ten and fourteen years able to read and write was 99.45. Indians standing sixth in the list of States and Territories in this respect. In 1890 it stood thirteenth, with 93 per cent.

The report of the Superintendent of Education for the year ending July 31 shows that the total school fund was $10,443,885.12, of which the schools received 6 per cent., distributed semianually. There was an addition of $53,588.90 to this fund, principally from fines. Of the fund the $821,522.96 is in the hands of county treasurers.

The total expenses of maintaining the schools of Indiana, including all forms of expenditure,
was $8,585,354.98. The increase in the school attendance over the preceding year was 2,902 pupils. The total number of pupils admitted to schools was 60,224. There are 9,887 schoolhouses in the State, only 3 of which are log buildings.

The average daily wages of teachers in all common and high schools was $2.61. The average in cities was $2.99 and in country districts $2.33. The average length of terms was one hundred and forty-six days—one hundred and seventy-nine in cities and one hundred and twenty-six in county.

A report on the operation of the compulsory education law shows that the 108 truant officers brought into school 25,025 children at a cost of $27,885.50. The cost of assistance rendered poor children was $19,801.48. The average total expenditure for each child was $2.23.

The enrollment at the State Normal School at Terre Haute in the year ending Oct. 31, 1901, was 1,804, the largest number, 1,200, attending during the spring term. The summer-school attendance was 673. The fiscal year began with a balance of $13,072.65 in the general fund and ended with a balance of $16,123.78. From the State tax of 7½c of 1 mill, $65,910 was received. There were 475 students during the fall term, and 95 students during the spring term.

The building of the former normal school at Muncie is to be opened as the Palmer University in September, having received an endowment of $100,000 from Frank Palmer of New York, in addition to another $100,000 to be raised by the Christian Church of the country.

A class of 55 was graduated at the Indiana Law School at Bloomington. From the Medical College of Indiana 72 were graduated in April, of whom 4 were women.

A department of commerce has been added at the State University; the course requires two years and is to furnish training for business careers.

Charities and Corrections.—The number in the insane hospitals Oct. 31, 1901, was 3,961; there were 404 insane in county poor asylums, and 31 in county jails. Of those in the 4 State asylums, 2,098 were women.

The report of the Institution for the Deaf and Dumb was 384, of whom 218 were boys.

From reports received by the Board of State Charities the population of the poor asylums of Indiana on Aug. 31, 1901, was 3,091—2,113 men and 1,078 women. In a Charities Board bulletin the following information is given:

"A few years ago there was spent in outdoor poor relief, including medical aid, in Indiana over $300,000. This has been reduced in six years to less than $210,000 a year. Ten years ago 14.8 persons in each 10,000 of the State’s population were inmates of the poor asylums. Now there are 12.2 persons in each 10,000."

During the year ending May 31 the number of teachers in the Girls’ Industrial School was 137; number of pupils, 857; average attendance of pupils, 660; number of garments made, 1,267; amount expended, $614.95.

Reports made to the Board of Charities for the year ending Oct. 31, 1901, indicate that during the year there were confined in the 92 county jails of Indiana 26,115 males and 1,890 females, an increase of 350 over 1900. The report says: "A synopsis of the report shows that of the total number of prisoners 15,922 were serving sentence, 733 were confined as insane, and 5,200 were tramps." Attention is called to the number of tramps received. Some counties maintain jails as a reserve line of public expense. In one county the books showed that the regular in-and-out fee and full board were charged for every tramp received. Those who came in one evening and were let out again were paid for by the county for two days’ board at 40 cents and an in-and-out fee of 60 cents, a total of $1.30, and the tramp received a night’s lodging and 1 or 2 meals. Figures taken from the monthly reports show that for the first six months of this year, 3,232 tramps were harbored in Indiana jails at a cost of $4,483.96, of which $1,487.05 was for sheriff’s fees and $2,987.04 for board.

There were 9,111 inmates in the 13 State institutions May 1. The cost of maintenance per capita for the quarter then ending was: Central Hospital for Insane, $45.77; Northern Hospital for Insane, $37.11; Eastern Hospital for Insane, $44.67; Southern Hospital for Insane, $44.52; Soldiers’ Home, $39.05; Soldiers’ and Sailors’ Orphans’ Home, $42.11; Institution for Deaf, $39.97; School for Feeble-Minded Youth, $37.50; State Prison, $39.85; Reformatory, $36.28; Industrial School for Girls and Woman’s Prison, $49.96; Reform School for Boys, $52.74; Institution for Blind, $85.48.

Banks.—There are 114 State banks, all in excellent condition. This year 13 new banks were organized, 1 retired from business. There are 5 savings banks. The trust companies are coming into general use as depositories for savings.

The latest available report on State banks answers the call made Nov. 25, 1902. A comparison with the report made Oct. 18 shows that deposits have increased more than $800,000, loans and discounts more than $700,000, while overdrafts have decreased $40,000 over the last call.

On a combined capital and surplus of $750,550 the surplus and profits amount to $1,530,619.62.

The annual report of the savings-banks, issued in February, shows an increase in assets over the report of a year ago of $750,097.40.

Building Associations.—The State has 403 associations, with a membership of 112,822, and assets amounting to $29,289,266. Their assets have increased $729,730.14. This is the first year since 1890 that there has not been a falling off in the volume of business. In addition to this there has been an increase in loans of $1,100,748.04 and a decrease in real estate held of $958,198.50. The increase in due, prepaid and paid-up stock and deposits has been $602,300.94.

Life-Insurance.—The result of the enactment of 1899 is that the entire life insurance companies is included under the law, and now these companies find ready admission into other States, where, previous to the enactment of the law, they were debarred.

Statistics of all the companies for 1901, standard life and approved assessment and fraternal organizations, show a total paid in the State of $4,202,963.

The Antitrust Law.—This law, passed in 1901, was in effect declared unconstitutional by the decision of the United States Supreme Court in regard to the similar statute of Illinois. Both laws are invalidated by an exemption in favor of live stock and agricultural products in the hands of the raiser or producer, or of labor organizations. Under the rulings of the court, an antitrust law, to be constitutional, must apply indiscriminately to all combinations, with no exemptions or exceptions whatever.

Agriculture.—A census bulletin issued in June shows that the farms of Indiana June 1, 1900, numbered 211,897, and were valued at $411,735-340. Of this amount $154,101,880, or 18.3 per cent., represented the value of buildings. On the same date the value of farm implements and machinery was $27,330,370 and that of live
stock $109,550,761. These values added to that of farm land make the total value of farm property $768,016,471.

The total value of farm products for 1899 exceeds that for 1898 by $126,890,936. The average area of farms has declined from 130.4 acres in 1850 to 97.4 acres in 1900. Considerably more than two-thirds of the area in farms is tilled by the owners or part-owners.

The value of live stock in 1900 was $109,550,761, of which horses represent 37.1 per cent.; cattle, except cows, 20.7 per cent.; and dairy cows, 16.7 per cent. The value of the products of the dairy in 1900 was $15,729,594, while the value of the poultry and eggs was $15,014,937.

Manufactures.—In manufactures great progress is shown during the decade. The report of 1900 shows 18,015 manufacturing establishments. The aggregate capital invested in 1900 was $234,- 481,528, an increase of 78 per cent. over 1890. The number of persons employed in 1900 was 155,- 856, an increase of 31,857 since 1890, the aggregate of wages paid was $66,847,317, against $51,- 749,976 in 1890, and the value of the products was $375,338,100, an increase of almost 67 per cent. since 1890. This remarkable growth of manufacturing industries was largely due to natural gas.

By the factory inspector's report for 1902, a further increase of employment is shown, the total being 178,019, of whom 26,200 were women; there were 2,622 boys and 1,196 girls under sixteen.

Latter figures than those of the census are also shown by the report of the State Statistician, giving a comparison of 10 representative industries, which have a total of $38,714,977 capital invested in 1901, against a total of $24,380,833 in 1898. Each of the 10 industries shows a large increase in the value of the product for 1901 over that of 1898. In 1898 the value of the product was $85,283,795, and in 1901 it was $121,434,106. The greatest increase is in the beef and pork packing industry, being $18,103,273. The total amount paid for wages in 1898 was $16,368,807, and in 1901 $21,973,820.

The coal product in 1901 was given as 6,962,940 short tons, valued at $7,078,842. Valuable deposits of iron ore have been found along the line of the projected Indiana Southern Railroad, and a report of an examination by experts who have recently made an examination there. In addition to the coal deposits beds of limestone have also been found. The samples of the iron ore have been taken, and it is reported that there is practically no admixture of sulfur, and the same condition of freeness from sulfur is found in the coal veins in the immediate neighborhood.

Lawlessness.—A strike on the street-railway in Terre Haute in January was the occasion of an outbreak of the kind, in which one man, a miner, lost his life.

A negro, guilty of assault upon 2 women, was hanged by a mob near Sullivan, Nov. 20. The sheriff, from whom he was taken by the mob, was deposed from office by the Governor, in accordance with a law passed in 1901. He was, however, entitled by the same law to a hearing before the Governor, and may be reinstated if he can show that he did all in his power to protect his prisoner.

A national federation of negroes was incorporated at Indianapolis, Aug. 23, the object of which was declared to be "to protect the colored races from mob violence, to aid a general advance- ment of the race, and punish lynchers of colored people, secure equal rights for colored people in all States, and to secure legislation to pay compensation to widows of colored men deprived of their lives by other than natural causes."

In September great excitement was caused by the discovery of wholesale grave robberies in the vicinity of Indianapolis. The bodies were sold to medical colleges. Several indictments were found in November against alleged grave-robers, most of whom are negroes.

Soldiers' Memorial.—The dedication of a monument to the memory of the soldiers and sailors of Indiana who took part in the civil war was witnessed by an immense concourse at Indianapolis in May. The corner-stone of the monument was laid in 1899. Among those who took part in the dedication exercises were the Governor, Major G. V. Menzies, Gen. J. W. Foster, Gen. Lew Wallace, James Whitcomb Riley, and Commander Starr, of the Grand Army.

Political.—An election for State officers, excepting Governor, was held in November. There were 8 tickets in the field—Republican, Democratic, Prohibitionist, Populist, Socialist, and Social Labor.

The Republican State Convention met in Indianapolis, April 23, and named the following candidates: F. W. Drane, of Marion, Indiana, for Governor; J. T. Tufts, of Marshall County, for Secretary of State; W. A. Morris, of Blackford County, for Treasurer; Samuel M. Scrivner, of Lawrence County, for Auditor of State; John H. Gillette, of Jefferson County, for Attorney-General; Charles W. Miller, of Clinton County, for Clerk of Supreme Court; R. A. Brown, of Allen County, for Superintendent of Public Instruction; W. E. Pasnett, of Harrison County, for State Treasurer; Julian W. Gilroy, of Clark County, for State Senator; and John H. Crooks, of Washington County, for Speaker of the House.

The resolutions, which were very long, were largely devoted to approval of the national policy and of the leaders of the party. The present State administration was commended. Other declarations were:

"We pledge the people that the Republican party will not confer special privileges on railway or other combinations, but will maintain and preserve the right of lawful competition and the supremacy of the laws over all corporations and monopolies.

"The law touching the garnishment of wages should be revised; and the laws for the protection of miners must be enforced by expert who has recently made an examination there. In addition to the coal deposits beds of limestone have also been found. The samples of the iron ore have been taken, and it is reported that there is practically no admixture of sulfur, and the same condition of freeness from sulfur is found in the coal veins in the immediate neighborhood.

"The Democratic party demands the adoption and enforcement of proper laws regulating nominations, securing to every man the right to express his choice for the office he prefers, and the right to know to whom he belongs, whether the nominations are made by a direct primary or a delegate or mass convention."

The Democrats met in State convention in Indiana on June 4 and made nominations as follows: For Secretary of State, Albert Schoonover; Attorney-General, W. E. Stilwell; Auditor, James R. Rigs, of Cincinnati, Ohio; Treasurer, Jereau Herff; Clerk of Supreme Court, Adam Heimerberger; Superintendent of Public Instruction, Samuel L. Scott; Superintendent of Public Instruction, Samuel L. Scott; State Statistician, Myron D. King; State Geologist, Edward Barrett, Jr.; Judge of Supreme Court, Fifth District, Timothy E. Howard; 3 Judges of the Appellate Court from the Southern District, John R. East, W. H. Bracken, and John D. Magee; 3 Judges of the Appellate Court from the Northern District, R. H. Hartford, James T. Sauderson, and H. G. Zimmerman.

The platform denounced trusts, the Dingley tariff law, the Philippine policy of the Government, and the Fowlkes bill; and condemned "the Republican party for refusing to give the Interstate Commerce Commission power to enforce
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its decisions against discriminations in railroad rates." On the currency it said: "We recognize as an economic fact the increase of standard money arising from the vast increased production of gold from our own and foreign mines, and the prodigious influx of foreign gold into this country, as a result of an exceptional demand for our products arising from foreign wars and other causes, and we point to the results consequent upon this increase of the circulating medium as a demonstration of the truth of the quantitative theory of money."

On State affairs the following declarations were made:

We oppose granting to corporations of any other State or States the power to acquire any railroad organized and operating under the laws of this State.

We are in favor of restoring to citizens of the State the right to appeal to the Supreme and Appellate Courts in any case within jurisdiction of a justice of the peace, where the amount in controversy, exclusive of interest and costs, exceeds $50.

We condemn the Republican Governor of Indiana for his violation of the Constitutions and laws of the United States and the State of Indiana as a violation of his obligation to honor the requisition of the Governor of Kentucky upon regularly returned indictments for murder against fugitives from justice, and denounce this flagrant violation of the Constitution of the United States and the State of Indiana as a species of official lawlessness, vicious in itself and subservive of that comity among the States which is an essential element of the Union of the States."

In convention, April 16, the Prohibitionists named the following candidates: For Secretary of State, James M. Dungan; Auditor of State, Dr. J. Levi Lord; Treasurer of State, Preston Rider; Attorney-General, Sumner W. Haynes; Clerk of Supreme Court, Charles F. Holler; Superintendent of Public Instruction, Andrew F. Mitchell; State Geologist, Earl Stinespring; State Statistician, J. Lewis Speicher.

The People's party made nominations as follows in convention at Indianapolis, June 4: For Secretary of State, William B. Gill; Auditor, Joseph B. Cline; Treasurer, Henry Brocksmith; Attorney-General, David F. Boger; Clerk Supreme Court, James T. But; Superintendent of Public Instruction, Louis Patterson; State Statistician, E. S. Pope; State Geologist, Albert Shook.

Extracts from the platform follow:

"We declare in favor of municipal ownership of street-cars, water, light, and heating plants in Indiana, and against the granting of further franchises to private corporations for such purposes."

"We favor the election of county school superintendents by a direct vote of the people."

"We condemn the practise of farming out on contract the men confined in our State prisons as violators of the laws."

"We adhere most positively to our former position on the finance question, which has been, is, and will be the paramount question in American politics."

"We condemn in unmeasured terms the bill now before Congress, known as the Fowler bill, which seeks to give banks and corporations the power to issue on cash deposits."

In State convention at Terre Haute, July 5, the Socialists placed in nomination a State ticket as follows: For Secretary of State, E. H. Meyer; Auditor, James Hutchinson; Treasurer, Samuel D. Straw; Attorney-General, William McGregor; Statistician, George B. Strum; Geologist, John H. Adams; Judges of Appellate Court, William Raugh, P. J. Macomber, David Young, William J. Crater, H. R. Kepper; Superintendent of Public Instruction, Miss Martha Biegler.

The Republican ticket was successful at the polls, having a larger plurality than in the last presidential year. Following are the official figures of the vote for Secretary of State: Storms, Republican, 298,819; Schoonover, Democrat, 263,555; Dungan, Prohibition, 17,785; Gill, People's, 1,330; Meyer, Socialist, 7,111; Dreyer, Social Labor, 1,758.

IOWA, a Western State, admitted to the Union Dec. 28, 1846; area, 56,025 square miles. The population, according to each decennial census since admission, was 192,214 in 1850; 674,193 in 1860; 1,194,020 in 1870; 1,624,615 in 1880; 1,911,696 in 1890; and 2,231,829 in 1900. Capital, Des Moines.

Government.—The following were the State officers in 1902: Governor, Albert B. Cummins; Lieutenant-Governor, John Herriott; Secretary of State, William B. Martin; Treasurer, Gilbert S. Gilbertson; Auditor, Frank F. Merriam; Attorney-General, Charles W. Mullan; Superintendent of Instruction, Richard A. Flagg; Asistant Attorney-General, Melvin H. Byers; Labor Commissioner, C. F. Wennerstrum, succeeded April 1 by E. D. Brigham; Dairy Commissioner, B. P. Norton, succeeded April 1 by H. E. Wright; Custodian of Public Credit, J. D. McGarrah, succeeded April 1 by T. P. McCurdy; Veterinary Inspector, J. I. Gibson, succeeded by P. O. Koto; Railroad Commissioners, E. A. Dawson, D. J. Palmer, Edward C. Brown; Geologist, Samuel Calvin; Fish and Game Commissioner, George A. Lincoln; Librarian, Johnson Brigham; Secretary of the Board of Health, J. F. Kennedy; Secretary of the Board of Agriculture, G. H. Van Houten; Secretary of the Executive Council, A. H. Davidson; Mine Inspectors, John Verner, J. W. Miller, D. Sweeney; Chief Justice of the Supreme Court, Scott M. Ladd; Associate Justices, Emlin McClain, H. E. Deemer, J. C. Sherwin, and C. M. Waterman, resigned, and succeeded July 11 by Charles A. Bishop, Clerk, C. T. Jones. All are Republicans.

A State election is held every November, but the term of State officers is two years, the Governor, Lieutenant-Governor, Superintendent of Instruction, one Justice of the Supreme Court, and one Railroad Commissioner being chosen in the odd-numbered years, and the Secretary, Auditor, Treasurer, Attorney-General, a Justice, and a Railroad Commissioner in the alternate years. The Legislature meets in January of the even-numbered years.

Finances.—A summary of the financial report of the biennium 1900-01, made to the Legislature this year, was given in the Annual Cyclopaedia for 1901.

The collections made by the so-called "tax-ferrets" in 1901 amounted to $903,609, about 10 per cent. of which was due to the State.

The railroad assessment was raised this year to $51,112,814, an increase of $4,041,550 over that of 1901. The aggregate taxable valuation of the express companies in Iowa for 1902 is $366,273; last year it was $261,687. The increase in the actual valuation would be four times the increase in the taxable valuation, or $14,178,740.

The actual valuation of the telegraph and telephone property of the State is placed at $6,512,496. The taxable valuation is $1,825,124, or one-fourth the actual valuation.

Last year the telephone and telegraph com-
compaines had actual valuation of $5,200,096, and the taxable valuation was $1,300,248.

The war claim of $450,417.39 of Iowa against the General Government was allowed, and an appropriation was made by Congress this year for its payment.

Education.—By the census report Iowa stood second among the States and Territories in 1900 in respect of the percentage of persons from ten to fourteen years of age able to read and write, with 99.03 per cent., Nebraska standing higher with 99.68. In 1890 Iowa stood first, with 99.23 per cent. The number of illiterates of ten years and over in 1900 was 40,172.

The school report for 1902 shows a decrease in the number of children of school age, 758,810 in 1902 and 735,159 in 1901. The enrolment in 1902 was 500,173; in 1901 it was 562,602. The attendance was a little larger in the later year. The total amount expended in 1902 was $9,558,800; in 1901 it was $9,321,652. The attendance in private schools rose from 43,715 to 49,169; the enrolment in high schools was 21,692 in October, with 3,083 in the graduating classes.

Fire destroyed a wing of the main building of the Agricultural College at Ames, Aug. 14, with a loss of $10,000. The Legislature authorized a tax of one-fourth of the value of buildings and land of every agricultural college and an agricultural building to be erected the coming year. A "corn-judging school" is to be held at the college Jan. 5-17, 1903. Every farmer in the State will be present, bringing samples of corn and other seeds.

On June 11 took place the forty-second annual commencement of the College of Liberal Arts of the State University. At this time the College of Law College, and the twelfth of the College of Dentistry, at which time ground was broken for the new medical buildings.

A new university, the Memorial, established by the Sons of Veterans, was opened at Mason City in September with an enrolment of 50. At present the course is that of a military academy, occupying three years and preparing for the college course hereafter to be established.

Coe College, at Cedar Rapids, graduated 24 in June, and Des Moines College 15. Upper Iowa University, at Fayette, has received a new library from Andrew Carnegie.

Charities and Corrections.—Following is the report for one month, May, of the number of inmates in each of the state institutions and the expenses of each: Anamosa, convicts, 417, $7,014; Fort Madison, convicts, 451, $7,151; Clarinda, insane, 1,001, $17,906; Independence, insane, 1,098, $23,099; Mount Pleasant, insane, 1,067, $19,744; Council Bluffs, deaf, 196, $4,407; Vinton, blind, 142, $2,526; Davenport, orphans, 500, $6,129; Marshalltown, veterans, 363, $7,729; Glenwood, feeble-minded, 916, $11,725; Eldora, reformatory, 518, $5,397; Mitchellville, reformatory, 202, $2,726; Cherokee building, $22,232, totals, 7,001, $141,588.

The main building and the chapel of the School for the Deaf, at Council Bluffs, were burned May 9. The loss was estimated at $225,000. The State does not insure its buildings. There was also a loss of $21,000 by fire at the Anamosa Penitentiary.

The Board of Control has prepared figures showing a large increase in the number of insane in the State, and private institutions in the past year. There has been a net increase of 136, not including paroles and dismissals.

The Board of Control has fixed prices for the various classes of inmates, and persons addicted to the excessive use of narcotics in two of the State hospitals, as provided for in the law on that subject passed by the last General Assembly. In November 139 inebriates were confined in two of the hospitals.

A home for ex-convicts has been built on the outskirts of Fort Dodge by Hon. L. S. Coffin on his own farm. Its purpose is to receive the most deserving prisoners as they are discharged from the penitentiaries of the State, to place them in quiet, homelike surroundings, where they can regain their self-respect and efface the prison taint, and finally to find for them situations where they may begin life anew.

Deposits.—In the 310 savings and 235 State banks increased almost $1,000,000 between June 15 and Sept. 15. On June 18 they had deposits amounting to $133,692,464. On Sept. 15 they had $134,513,583 of deposits. In a period of two years the deposits increased $43,400,000.

Insurance.—The number of life companies transacting business in the State Jan. 1 was 128; the policies in force, 382,064; the amount of insurance in force, $534,394,418. The joint-stock and mutual fire-insurance companies wrote $211,055,076 in risks and paid $2,532,707 in losses. The State and county mutual insurance associations wrote $91,325,782 in risks and paid $4,852,002 in losses. All kinds of companies paid $4,111,060 in losses.

Railroads.—The railroad mileage in 1901 was 9,353,920; in 1902 it was 9,614,060. Other items in the two years were as follows: Net earnings, 1901, $746,385; 1902, $748,575; rates, 1901, $576,953; 1902, $449,871; net earnings per mile, 1901, $1,850; 1902, $2,003,086. There were 193 railroad accidents in 1902, of which 9 were to passengers.

The report shows a decrease in the compensation to employees, considering the daily average. In 1901 the average daily compensation was $1.84. In 1902 this dropped to $1.82. At the same time there was an increase in the aggregate of wages paid and in the number of employees.

Industries and Products.—The amount of coal produced in the State in 1901 was 5,578,522 short tons, valued at $8,016,574.

The number of farms in the census year was 228,622, valued at $1,497,554,790. Of these farms 46,840, or 20.6 per cent., were farms of less than 40 acres.

The Dairy Commissioner's report of butter shipments shows that there were 4,425,930 more pounds shipped out in 1901 than in 1900, a total of 90,808,645 going out.

The rains of 1902 were more damaging to crops than the drought of 1901. The value of the corn, wheat, oats, barley, rye, flax, potatoes, and hay was estimated in December as worth $215,722,339. In 1901 the estimate was $274,000,000.

The number of creameries fell from 994 in 1900, with 9,417 patrons, to 920 in 1902, with 8,532 patrons.

The number of manufacturing establishments in the census year was 14,819, with capital amounting to $102,733,102; the value of the products was $185,000,000.

The wooded area of the State, according to the estimate of the topographer of the national Geological Survey, is 7,000 square miles.
liquor, or aid in the delivery and distribution of any intoxicating liquor so ordered or shipped; provided that nothing herein shall prohibit traveling salesmen soliciting orders for the purchase, sale, and shipment of intoxicating liquors from persons legally authorized to sell or dispense the same."

The Supreme Court decides that the law is unconstitutional in that it interferes with interstate commerce.

Legislative Session.—The General Assembly was in session from Jan. 13 to April 11. W. L. Eaton was chosen Speaker of the House, N. E. Kendall, Speaker pro tem., and W. F. Harriman, President pro tem. of the Senate.

In the Senate were 11 Democrats and 39 Republicans in the House, 16 Democrats and 84 Republicans.

The constitutional amendments proposed were to provide for biennial instead of annual election of judges and to give to each county one member of the House of Representatives and to such larger counties as have the fixed ratio of population an additional member, the number of members of the Senate, however, to be limited to 108.

Among the larger appropriations were these: To the Board of Control of State institutions, $710,557; to the State educational institutions, $434,000; to the Commission, $2,500,000; St. Louis Exposition, $125,000; National Guard, $104,000; for erection of Vicksburg monuments, $150,000; to finish Cherokee Insane Hospital, $15,000; additional support for State institutions, $75,222; pavilion at State fair grounds, $37,500; monuments at Chattanooga, $35,000; State Library Commission, $12,000; State Historical Society, $9,500; for transferring patients to Cherokee, $21,600.

The levy of taxes for buildings at the State educational institutions was authorized—one-fifth mill for the university, and the same for five years for each of the others—the Agricultural College and the Normal School. Other acts relating to taxation were:

Making taxes on assets of any corporation, partnership or firm which are placed in the hands of a receiver a prior lien, and providing that they shall be first paid in full by the receiver.

Authorizing the levy of a 4-mill road tax.

Providing that property not to exceed $800 in actual value of any honorably discharged Union soldier or sailor of the Mexican War or of the war of the rebellion, or of the widow remaining unprovided for such soldier or sailor, shall be exempt from taxation.

Permitting communities to vote 5 per cent. taxes in aid of railroads once in ten years.

Reducing the taxes upon foreign insurance companies from 31 to 2½ per cent. upon gross premiums.

Fixing the amount to be raised during the year 1902 by taxation at $2,300,000; during the year 1903, at $2,000,000. On the present valuation this will make a levy of about 4 mills for the two years.

Repealing the section requiring boards of library trustees to fix a levy for the maintenance of libraries and permitting a levy of 1 mill in all cities having 22,000 population and 2 mills in cities having more than 22,000 for maintenance, and a levy of 3 mills in cities of more than 25,000 for building.

Acts affecting railroads provided that railroads shall report in the aggregate to the Executive Council the following: Net income derived from business originating in Iowa and terminating in other States, from business originating in other States and terminating in this State, from business neither originating nor terminating in Iowa, but carried across a part of this State. All of these items are to be included in one sum.

The State mine examiners are required to examine every mine having an average output of 50 tons or more as often as once in six months; and a board of 5 examiners is to be appointed to examine candidates for appointment as mine inspectors, mine-hoisting engineers, and mine foremen. Members of this board must hold certificates of competency and have had at least five years actual experience immediately preceding appointment.

The Board of Medical Examiners is required to issue certificates to practise to qualified osteopaths.

The age to which girls may be detained at the Industrial School was raised from eighteen to twenty-one.

The Support fund of the State institutions was fixed as follows: The Institution for the Deaf and Dumb, at Council Bluffs, $22 a month per capita for all purposes; $22 a month per capita for all salaries and supplies for the College for the Blind, at Vinton, for each resident scholar in that institution, for nine months in each year; the Soldiers' Home, at Marshalltown, $10 a month, for officers and others; the insane hospitals at Clarinda, Independence, and Mount Pleasant shall not exceed $12 a month per capita; at Cherokee, $15 when the population is under 600, $14 when the population does not exceed 750, $13 when the population is in excess of 900, and $12 thereafter, provided, however, that all in excess of $12 shall be paid out of the treasury of the State.

The allowance to the Eldora Industrial School was increased from $9 to $10 a month.

Other measures were:

Reorganizing the Supreme Court and increasing the salaries of the members from $4,000 to $6,000 per annum.

Increasing the salary of the Governor from $3,000 to $5,000. The Governor receives house rent amounting to $500 a year and $800 for services on the Executive Council, so that the increase is really from $4,100 to $6,100.

To punish kidnapping by imprisonment in the penitentiary by any term between ten years and life.

To provide that any person convicted of the murder of another person shall not receive any interest in the estate of the decedent as surviving spouse.

Punishing by imprisonment for not more than twenty years persons who advise, counsel, encourage, advocate, or incite murder, although no such killing takes place.

Providing for a department in one of the State hospitals for the treatment of inebriates, dipsomaniacs, etc.

Requiring children between seven and fourteen years to attend school at least twelve school weeks in each year.

Recognizing corporations organized for the care and placement of abandoned children.

Making the laws of Iowa with reference to negotiable instruments uniform with the laws of other States upon this subject; among other things this law practically abolishes the three days of grace.

Providing that savings-banks may loan not to exceed one-half of their capital stock to any person upon farm land worth twice the amount loaned.

Giving farmers' institutes $100 a year State aid instead of $50.
United States of America

Permitting savings-banks to take deposits to twenty times their capital stock, instead of ten times, as at present.

Using the conveyances of real estate in which the husband or wife conveyed the inchoate right of dower of the other spouse.

Providing that the inheritance between parent and child by adoption shall be the same as between parent and children born in lawful wedlock.

Relieving the State Game and Fish Warden of liability for destroying illegal fishing and gaming apparatus; promoting catfish to be game-fish, placing pickerel in the class of game-fish with reference to the closed season; prohibiting the killing of fish by drugs or dynamite, etc.; making the open season for squirrels to begin with September instead of June; making rail, plover, and sandpiper and maruh birds game.

Authorizing the organization of naval militia.

Political.—For the offices to be filled at the November election the Republican State Convention, at Des Moines, July 30, named the following candidates: For Secretary of State, W. R. Martin; Auditor of State, B. F. Carroll; Treasurer of State, Gilbert S. Gilbertson; Attorney-General, C. W. Mullan; Judge of Supreme Court, Scott M. Leady; Judge of Supreme Court, C. L. B. Cooper; Clerk of Supreme Court, J. C. Crockett; Supreme Court Reporter, W. W. Cornell; Railroad Commissioner, E. A. Dawson.

The more significant declarations of the platform were those relating to tariff revision and control of trusts, and there was some controversy over these, which was settled in the Committee on Resolutions in favor of a reiteration of last year's utterance, with an addition to the trust plank, congratulating President Roosevelt on the inauguration of judicial proceedings to enforce the antitrust laws.

Last year's platform, which is reaffirmed, contained the following paragraph concerning the tariff: We favor any modification of the tariff schedules that may be required to prevent their affording shelter to monopoly."

"We assert the sovereignty of the people over all corporations and aggregations of capital and the right of the people to enforce regulations, restrictions, or prohibitions upon corporate management as will protect the individual and society from abuse of the power which great combinations of wealth have acquired."

Attention was drawn all over the country to these declarations of the platform by the action of Hon. D. B. Henderson, Speaker of the House of Representatives, who declined to be a candidate for re-election in the Third District because he was not in accord with his constituents, not believing that the evil of trusts could be effected by revision of the tariff in the direction of free trade.

The Democratic Convention, at Des Moines, Sept. 3, made nominations as follow: For Secretary of State, Richard Burke; Auditor of State, J. S. McLuin; Treasurer of State, Dr. R. U. Chapman; Attorney-General, John D. Denison; Judge of Supreme Court (long term), Thomas Stapleton; Judge of Supreme Court (short term), J. H. Quick; Railroad Commissioner, Thomas Benson; Supreme Court Clerk, Jesse Tripp; Supreme Court Reporter, John Dalton.

By expressing the policy of the administration in regard to the Philippines, the permitting of shipments of war supplies from our ports for the use of the British in the Boer War, denouncing the pending Fowler banking bill, and demanding election of United States Senators by direct vote of the people, the platform made the following declarations:

"The tariff policy, originally adopted for the avowed purpose of raising revenue to meet the enormous burdens of the civil war, has been turned to the use of individual and class interests until it has become the creator of countless unearned fortunes and of great combinations of capital, organized in the form of trusts, which are strangling competition in many of our industries, destroying individual effort, crushing ambition largely in every line of industry, and already acquiring a power which enables them to dictate in their own interest the prices of labor and raw material and the cost of transportation of finished products."

"We charge that discrimination in freights by common carriers is the handmaid of an exorbitant protective tariff in fostering the gigantic trusts that have become a menace to the welfare of the masses, and we demand such changes in our interstate commerce act as may be necessary to secure the speedy punishment by imprisonment of any officer or agent of a corporation engaged in interstate commerce, who is guilty of such discrimination, and the enactment of further provisions that shall make such discrimination a ground for prohibiting the offending corporation from transacting the business of a common carrier in the business of interstate commerce."

A minority report from the Committee on Resolutions proposed a reaffirmation of the Kansas City platform in regard to silver change, but it was rejected by a vote of 344 to 384.

The ticket of the Prohibition party, whose convention was held at Waterloo, Aug. 21, was: For Secretary of State, W. W. Lawrence; Auditor of State, John W. Leedy; Treasurer of State, F. P. Fetter; Railroad Commissioner, E. H. Albright; Attorney-General, J. R. Ferguson; Judge of Supreme Court, J. A. Harvey; Clerk of Supreme Court, E. A. Graves; Reporter of Supreme Court, W. P. Briggs.

The platform declared that the convention "reverently acknowledged God as the author of civil government and Jesus Christ as the ruler of the nations of the earth, and that his law is the magna charta of human liberty, to which all legislation should conform."

The Socialist party met in State convention at Davenport, Sept. 2, and adopted a platform in which declared the purpose of the party to acquire for society the control of Government and the ownership of capital represented by mines, machinery, and all means of production and distribution. The following State ticket was nominated: Secretary of State, W. A. Jacobs; Auditor of State, T. J. Grant; Treasurer of State, S. R. McDowell; Attorney-General, I. S. McCrelia; Judge of Supreme Court, A. D. Pugh; Clerk of the Supreme Court, A. M. Larson; Railroad Commissioner, James Lorimer.

The Republican candidates were elected by a plurality of 79,214.

Republicans were elected to Congress in all the districts except the second, where M. J. Wade, Democrat, was elected by 1,188 plurality.

Louisiana Purchase Flag-Day.—Dec. 20 was set apart, by proclamation of the Governor, as Louisiana Purchase Flag-Day. This day was the ninety-ninth anniversary of the acquisition of the territory of the Republic of Louisiana by the United States, and it was proposed to observe it by a display of the flag on public buildings and business houses and dwellings if practicable.

KANSAS, a Western State, admitted to the Union Jan. 29, 1861; area, 82,980 square miles,
The population, according to each decennial census, was 107,206 in 1840; 364,390 in 1870; 706,096 in 1880; 1,427,096 in 1890; and 1,4,104,495 in 1900.

**Government.**—The following were the State officers in 1892: Governor, William E. Stanley; Lieutenant-Governor, Harry E. Richert; Secretary of State, George A. Clark; Treasurer, Frank Grimes; Auditor, George E. Cole; Attorney-General, A. A. Godard; Superintendent of Public Instruction, Frank Nelson; Secretary State Board of Agriculture, F. D. Coburn; Adjutant-General, S. M. Fox; Superintendent of Insurance, W. V. Church; Oil Inspector, S. O. Spencer; Grain Inspector, R. J. Northrup; State Printer, W. Y. Morgan; Bank Commissioner, Morton Albaugh; Labor Commissioner, W. L. A. Johnson; Members of State Board of Charities, Henry J. Allen (president), Edwin Snyder (secretary). All the elected officers are Republicans. Supreme Court—Frank Doster, Chief Justice; William A. Johnston, William R. Smith, Edwin W. Cunningham, Adrian L. Greene, Abram H. Ellis, and John C. Pollock, Justices (Judge Hite and Judge Burch were appointed on the Governor's recommendation). Provision was made for a Court of Appeals, of 6 members, to relieve the Superior Court of a portion of its work. The Court of Appeals expired by the expiration of the term in 1869. At the general election of 1890 a judicial amendment to the Constitution, providing for the increase of the membership of the Supreme Court to 7, was adopted, and the 4 additional members—Cunningham, Greene, Ellis, and Pollock—were appointed by the Governor. With the exception of the Populist Chief Justice, all are Republicans.

The State officers are elected in November of the years of even number. The Legislature meets biennially in January of the odd-numbered years. The session is limited to fifty days.

The State Tax Commission report shows the financial affairs of the State to be in good shape, the payment of taxes, fees, bonds, and interest being prompt and regular. The total delinquent on the 1st day of August (1892) are only $62,914.94, compared with $4,748.77 two years ago, and $164,835.88 four years ago. The total assessed valuation of property for 1892 was $339,853,397, an increase of $16,430,927 over that of 1890, and $363,728,557 over that of 1881. The State tax levy for the year was $51 mills, the same as for the preceding years. Property in Kansas is customarily assessed at from one-third to one-tenth of its actual value. This year a State Tax Commission, created by the last Legislature, drew up for presentation before the next Legislature a tax law designed to correct the inequalities of the present method of assessing property. The total appropriations made by the Legislature for the fiscal year ending June 30, 1892, amounted to $2,624,905.90. Of this amount, $2,238,493.61 was drawn, leaving unexpended $366,412.35. The entire bonded indebtedness of the State, amounting to $832,000, is held by the State school funds. On July 1, 1903, $220,000 of the State bonds will fall due, and on Jan. 1, 1904, $159,000. The Treasurer this year says that with reasonable prudence it will not be necessary to refund them, and recommends payment when due. In 1892, the State had a surplus of $10,938.18, which was applied to the payment of debt. For the fiscal year ending June 30 amounted to $3,585,350.19; disbursements, $3,545,609.33; leaving a balance of $267,706.85.

The semianual examination of the treasury, held Dec. 20, 1902, showed cash on hand to the amount of $241,283.50, distributed as follows: General revenue, $1,933.10; State-House, $251.07; State-House (completion), $4,000; livestock sanitary inspection, $2,285.05; permanent school, $11,385.82; annual school, $16,802.34; University permanent, $9.47; University interest, $1,352.50; Normal School permanent, $687.98; Normal School interest, $52.95; Agricultural College permanent, $365.49; Agricultural College interest, $1,281.74; insurance examination, 80; Stormont Library interest, $1,474.25; municipal interest, $1,472.84; State twine plant revolving fund, $1,212.448.68.

The bonded indebtedness of all municipalities in Kansas, comprising all securities outstanding issued by counties, cities, townships, boards of education, and school district boards, amounted, on June 30, to $32,614,000. Adding the indebtedness of the State, $532,000, the total is $35,266,000.

**State Property.**—The Auditor's estimate shows the property owned by the State to be worth $11,186,500. In this amount is included $1,000,000 of endowment funds of Union University, $1,225,000; Emporia Normal, $570,000; Manhattan Agricultural College, $1,083,000; Quindaro Industrial School, $21,500; Penitentiary, $1,584,500; Hutchinson Reformatory, $310,505; Dodge City Soldiers' Home, $108,000; Ellsworth Bickerdyke Home, $17,250; forestry stations at Dodge City and Ogallala, $5,415; Peabody silk station (unused), $2,500; Osawatomie Insane Asylum, $800,300; Topeka Asylum, $791,100; Parsons Asylum, $118,000; Topeka Reform School, $186,050; Winfield Imbecile Asylum, $138,000; Beloit Industrial School for Girls, $113,500; Atchison Orphans' Home, $183,000; Kansas City Blind School, $156,250; Olathe Deaf and Dumb School, $272,905; Fort Hays Experiment Station and Normal Farm, $14,688. The fees from the various departments collected for the fiscal year ending June 30, 1902, were: Oil Inspector, $19,944; Grain Inspector, $34,205; State Auditor, $4,631; State Treasurer, $2,534. The Clerk of Supreme Court, $14,133; Bank Commissioner, $8,688; stenographers, $2,715; Live Stock Sanitary Commission, $4,260; Normal School, $3,400; charter fees, $40,390; fees for examining insurance companies, $2,203; 2-cent. tax collected by State Superintendent of Insurance from insurance companies for distribution among the fire departments of the State, $153,625.

For the expenses of 1902 the last Legislature appropriated $2,624,905.90. The expenditures were $2,628,905.61, leaving a balance of $366,312.35.

There was turned back into the general fund $88,599.38 of the appropriation made for the completion of the State-House. The Adjutant-General turned back $21,292.40. The Agricultural College had a balance of $17,568.39 and the Penitentiary $38,000.

**Banks.**—The statement called for at the close of business on Nov. 25, 1902, showed that there were 47 banks doing business in Kansas. There were 47 State and private banks. The total deposits in all banks were $82,549,501.61; total loans and discounts, $67,700,842.65; total overdraws, $1,045,
033.45. The individual deposits in the national banks aggregate $30,537,098.01; in the State banks, $90,641,467.90. While there are more than three times as many State banks as national banks, the capital stock of the former aggregates only $7,751,000, compared with $9,255,500 for the latter. As to surplus funds the State banks have $1,768,703.56; the national banks, $1,675,086.56. It was expected that the November statement would show a decrease in deposits over the statement of the preceding September, but there was an increase in the State banks amounting to $75,856.91, and in the national banks $180,576.90. In the year 65 State banks were incorporated, and 10 national banks began business. The report of the Bank Commissioner shows that 85 State and 15 private banks have an unimpaired surplus equal to or greater than 50 per cent. of their capital. With but few exceptions these are in small towns, with good agricultural surroundings, their capital ranging from $5,000 to $50,000. There were no bank failures in 1902.

Insurers.—On Dec. 20, 1902, there were authorized to do business in Kansas 296 insurance companies: 70 life, 42 fire, 21 casualty, 20 mutual, 56 fraternal beneficiary. Four companies retired in the year: 2 fire, 1 mutual, 1 fraternal. Since June 1 one company entered, 1 mutual. The department issued to agents 10,595 licenses. Up to Dec. 20, 1902, the fees collected amounted to $255,461.35, of which $182,000 went to the general fund and $75,261 to the fund for distribution among the fire departments of the State, this fund being raised by a tax on the companies doing business in the State. The Insurance Department netted the treasury more than any other department of State work.

Education.—Kansas has a school population of 508,820 between the ages of five and twenty-one; total enrolment, 389,272. There are 9,106 schoolhouses and 11,709 teachers. The value of all school property is $18,003,324. The amount expended for education in 1902 was $6,171,295. Of this amount, $4,904,562.55 represents the total expense of the public schools. There was collected for the public schools for the year $6,505,240.11, which left a balance of $700,078.56. The permanent school fund amounts to $7,500,000, and the interest of this amount is distributed semiannually. The permanent fund of the State University has a fund of $200,000, the yearly interest amounting to $10,000. The fund of the State Agricultural College aggregates $500,000, and the interest is $20,500. These funds are increasing yearly as the result of the sale of land held in trust by the State for the schools. More than 500,000 acres of school land remain unsold. Compromises were effected with four of the far western counties whose delinquent bonds are held in the permanent school fund. A portion of the interest was remitted, and the rate lowered. The demand for school land is increasing. The Auditor's records show that in 1902 the land sales aggregated $178,427, and most of it was for the permanent school fund. The rentals for unsold school land for the year amounted to $20,790. A detailed statement of money paid out for education for the past year shows: Public schools, $4,904,562; county high schools, $1,007,705.00; business colleges, $252; shorthand and schools of telegraphy, $10,085; manual training schools, $6,155; medical schools, $8,000; Soldiers' Orphans' Home, $4,000; Industrial School for Boys, $2,752; Swedish Orphans' Home, $2,000; denominational schools (academies and colleges), $493,219; normal institutions, $6,500; State educational institutions, $314,432; federal educational institutions, $319,000; Young Men's Christian Association (educational work), $19,045; total, $6,171,295.

A statement of the value of all school property is: Public schools, $11,608,419; county high schools, $214,799; business colleges, $252; schools of telegraphy, $25,000; manual training schools, $19,296; medical schools, $60,000; Industrial School for Boys, $175,500; Industrial School for Girls, $110,300; denominational schools (academies and colleges), $2,768,100; private normals, $50,000; elocution and oratorical, $2,500; State educational institutions, $3,176,095; federal institutions, $292,100; total, $18,003,324.

There are but $3,101,899 in school bonds outstanding, of which $249,740 were issued in the past two years. During the same period 137 new schoolhouses were erected at a cost of $253,219. There are 3,823 women teachers and 3,304 men. The men receive an average monthly salary of $44.24; the women, $38.95. The average length of the school term is 23.15 weeks. The average levy of taxes for school purposes is 11.05 mills. Wyandotte ranks first in value of school property, $385,000. Haskell is the other extreme, $2,150. One county had 4.1 per cent. indebtedness whatever. In proportion to school population Kansas has a school enrolment larger than that of any other State in the Union. There are 25 counties in which women are superintendents of public instruction. Kansas ranks fifth among the States in percentage of persons who can read and write—49.48. Ten years ago it ranked fourth. Seven-tenths of the total school children enter high schools; only 6 per cent. go to college.

Kansas has 5 manual-training schools; 12 county high schools; 100 city high schools that prepare students for entrance to the State University; schools of telegraphy; 2 oratory and elocution; 2 music, 10; business colleges, 23 (in addition, some denominational and private schools also support business departments); medical colleges, 2; private normals, 3; denominational schools, 30; colleges and universities, 26; State educational institutions, 5; preparatory schools, 7; Young Men's Christian Association schools, 7.

The State University, at Lawrence, has 80 instructors; enrolment, 1,233; graduates last commencement, 14; endowment, about $145,000; expenditures for current year, $165,000; tuition, per annum, $10; for non-residents, $25; average total annual expense per student, $135; volumes in library, 37,584. The State Normal School, at Emporia, has 44 instructors; enrolment, 2,034; value of buildings and apparatus, $248,000; volumes in library, 15,000; expenditures for current year, $65,065.37. The Western Branch of the State Normal School, at Hays City, founded in 1902, has 3 instructors; enrolment, 70; land owned, 4,100 acres, valued at $80,000; value of buildings and apparatus, $6,900.78. The State Agricultural College, at Manhattan, has 63 instructors; enrolment, 1,396; land owned, 323 acres; value of buildings and apparatus, $494,708; endowment, $491,181.30; volumes in library, 21,103; pamphlets, 20,000; value, $53,625; total receipts for year, $73,747.35; total expenditures, $73,697.10; these colleges, $330,075; shorthand and schools of telegraphy, $10,085; manual training schools, $6,155; medical schools, $8,000; Soldiers' Orphans' Home, $4,000; Industrial School for Boys, $2,752; Swedish Orphans' Home, $2,000; denominational schools (academies and colleges), $493,219; normal institutions, $6,500; State educational institutions, $314,432; federal educational institutions, $319,000; Young Men's Christian Association (educational work), $19,045; total, $6,171,295.
ments have been made by the Government to cooperate with the State in experimental irrigation. The Elevator, the Agricultural College at Manhattan are the largest institutions of their kind in the world.

The Kansas Medical College, in Topeka, has 33 instructors; enrolment, 98; value of buildings and apparatus, $25,000; expenditures for year, $4,000.

Washburn College, Topeka, has 25 instructors; enrolment, 238; value of buildings and apparatus, $189,000; endowment, $75,000; volumes in library, 10,000; expenditures for year, $30,107.80. A well-equipped observatory, which will cost about $75,000, is in process of construction at Washburn.

Western University (industrial school for negro youth), at Kansas City, has 10 instructors; 4 lecturers; enrolment, 103; value of buildings and apparatus, $40,000; expenditures for year, $7,000.

Topeka Industrial and Educational Institute (for negro youth) has 9 instructors; 2 lecturers; enrolment, 134; value of buildings and apparatus, $10,325; expenditures for year, $3,655.36; supported by donations.

Hill School at Lawrence (federal), has 66 instructors; enrolment, 891; land owned, 1,000 acres; value of buildings, $250,000; expenditures for year, $312,900.

Traveling Libraries.—The traveling-library department of the State Library contains more than 10,000 books, having doubled the number in the past two years. Libraries to the number of 120 Indian and 1,500 local libraries contain 50,000 books, made up in any manner to conform to the orders sent in. The majority of them are sent out to schools, both in cities and rural districts. In many instances these traveling libraries lead to the establishment of permanent ones in the communities that use them. The heartiest reports in their favor come from county districts and small towns. The State appropriation is $4,000 annually, $3,000 of which is to be used in the purchase of new books. Frequent calls are made for these libraries from study clubs. 

The State Penitentiary.—Besides the 8 institutions directly under the control of the Board of Trustees of State Charities and Corrections, there are 28 independent charities that receive State appropriation, the value of the property from $300 to $2,000 a year. One, the Kansas Children's Home Society, receives $2,000; another, the Kansas Industrial and Educational Institute for Colored Youth, receives $1,500; 15 receive $700, and the others from $300 to $2,000 per year. Reports made by 25 of these concerns show 1,138 inmates and patients, and buildings and property valued at $456,300.

The Topeka State (insane) Hospital has 1,258 inmates; expenditures for fiscal year ending June 30, 1902, $180,717.04. The Oswatattit State (insane) Hospital has inmates, 1,094; officers and employees, 172; expenditures for the fiscal year, $150,217.09.

The School for the Deaf, at Olathe, has inmates, 230; officers and employees, 42; expenditures for the fiscal year, $47,790.31.

The School for the Blind, at Kansas City, has inmates, 105; officers and employees, 21; expenditures for the fiscal year, $22,986.50.

The Soldiers' Orphans' Home, at Atchison, has inmates, 257; officers and employees, 41; expenditures for the fiscal year, $32,429.20.

The State School for the Feeble-Minded, at Topeka, has inmates, 109; officers and employees, 35; expenditures for the fiscal year, $41,887.20.

The Girls' Industrial (reform) School, at Beloit, has inmates, 123; officers and employees, 20; expenditures for the year, $28,563.54.

The School for Feeble-Minded, at Winfield, has inmates, 288; expenditures for the fiscal year, $48,553.54.

The School for the Feeble-Minded and the asylums at Topeka and Oswatattit are sadly overcrowded, unable to receive patients that are held in private asylums. At Parsons a third asylum is in course of construction. It is being built with especial reference to the care of epileptics. All patients of this kind will be assembled there. Provision was made by the last Legislature for inspection of the poorhouses, jails, and lock-ups of the State by members of the Board of Charities and Corrections. Reports made by the inspectors show that in nearly all instances the inmates of the poorhouses are comfortably clothed and well fed, but in many instances the quarters are poor and the conditions unsanitary in the extreme. Many buildings were found unfit for use, but the law gives the inspectors no power to condemn. Some of the oldest and wealthiest counties in the State have the meanest and worst-kept poorhouses. In a general way, the inspectors reported that the State is a disgrace to civilization, many of them being both unsanitary and unsafe.

The State Industrial Reformatory (for boys), at Hutchinson, has 291 inmates; 43 officers and employees; total value of all property, $503,491.22; total expense for the fiscal year, $90,370.93.

The State Penitentiary has 1,089 inmates; 85 officers and employees; the appropriation for the last fiscal year was $179,300; balance of appropriation unexpended, $10,91; total cash earnings, $50,940.76; cash expenditures over cash receipts, $128,350.24. Against this excess of cash expended over cash received are set earnings to the amount of $110,280.11, for which no cash was remitted, leaving a debit balance against the Penitentiary of $17,070.13. In 1902 the Penitentiary mine furnished the various State institutions with 70,315.05 worth of coal and $13,231.84 worth of brick. The Penitentiary plant is furnishing all the brick that will be needed for the new Parsons asylum at a cost of a trifle more than $2 a thousand. In the warden's judgment it has been demonstrated that the process of building the plant has been successful. In the year the plant turned out 1,101,690 pounds of twine; cash sales amounting to $105,521.58. In September the plant paid the State the $115,000 due on the revolving fund, the $150,000 which was appropriated to start the plant, making said fund whole, the balance then on hand being $22,713.41, in cash and raw material. Aside from the financial success, the plant is considered as of special value in keeping the price of twine made by the trust below an exorbitant figure.

Less than 6 per cent. of the prisoners released under the terms of the parole law violated the conditions under which they received liberty.

**Products.**—In 1902 Kansas, in common with other States of the West, suffered considerably from long-continued dry weather. In 1902 the farmers' principal trouble was caused by floods in Kansas streams that were greater than any that had occurred in many years. One result was that the yield of wheat was cut down materially, and the quality of what was raised was injured in great degree, but the yield of corn was the greatest in the State's history.

The yield of winter wheat was 54,323,830 bushels. Its home value is given as $28,083,943.60.
The area sown, as returned by township assessors in March, was 6,254,474 acres. The area reported sown for next year’s crop is 6,090,105 acres, being a decrease of 234,364 acres, or 3.7 per cent, below last year’s sowing, which was much the largest ever reported. The shrinkage in spring-wheat sowing, so conspicuous annually of late years, is greatly mitigated by evidence this year, with but 46,293 acres, and a yield of 325,397 bushels, worth $155,545.57.

The corn area was 6,990,764 acres (which includes the 5,619,500 acres reported by assessors, plus 1,071,174 acres of the plowed-up wheat-land first planted to corn) and yielded 201,367,102 bushels, worth $78,321,052.28.

The yield of oats was nearly 60 per cent. greater than last year, or 32,906,114 bushels, the largest yield since 1892.

The yield of potatoes, on a conspicuously diminished area, 60,018 acres, was 8,193,632 bushels, the largest and best crop by far since 1899, with a value of $3,180,856.71.

The net increase in value of this year’s agricultural production over that of 1901 is $20,014,343; and of live stock $2,099,680. In two years the increase in value of agricultural productions has been $25,072,588, and of live stock $11,049,059.

The wheat crop increased over the values of three years before amounts to $80,071,029.

The quantity of old corn in the hands of farmers on March 1 was 7,724,942 bushels. The year before it was 10,124,589 bushels, and two years before 48,255,677 bushels. The quantity of old wheat in farmers’ hands March 1 was 9,664,598 bushels. The year previous 7,966,555 bushels, and two years previously 4,624,858 bushels.

Other products of 1902 are: Rye, 3,728,269 bushels, valued at $1,884,321.31; barley, 2,183,873 bushels, valued at $801,381.88; buckwheat, 2,770 bushels, valued at $2,216; castor-beans, 4,400 bushels, valued at $5,500; cotton, 136,000 pounds, valued at $6,200; flax, 1,432,876 bushels, valued at $1,713,570; hemp, 10,200 pounds, valued at $610; tobacco, 15,150 pounds, valued at $1,615; broom-corn, 16,584,205 pounds, valued at $405,640; olive, Hungarian milled, 400,100 bushels, valued at $74,482; pigeon pea, 1,700 bushels, valued at 200 gallons, valued at $685,114; value of asparagus, Kafr corn, milo maize, and Jerusalem corn for forage, $12,378,894; tame hay, 803,934 tons, valued at $401,467; wheat straw hay, 1,920,637 tons, valued at $3,282,548; wool-clipp, 472,427.50, valued at $97,114.05; cheese, butter, and milk, $8,412,217.65; poultry and eggs sold, $6,706,262; animals slaughtered or sold for slaughter, $21,340,589; horticultural and garden products and wine, $1,905,550.50; honey and beeswax, 405,150 pounds, valued at $800,351.20; wood marketed, $186,150; total value of products, $215,998,995.

Railroads.—Kansas has 8,753.55 miles of main track, and 1,636.25 miles of sidings. The assessed valuation of all railroad property is $90,276,209.

In 1902 two branches were constructed by the Missouri, Kansas and Texas in the southeastern portion of the State; one from Moran to Iola, the other from Mineral Junction to Joplin, their aggregate length being about 37 miles. The Kansas-Southwestern, a line 59.35 miles long, from Cale Junction to Anthony, became the property of the Santa Fe. The Kansas and Southern, an 87-mile line in Indian territory, connecting Westmoreland with Blaine, on the Leavenworth, Kansas and Western, operated independently, went into the hands of receivers in the fall. The Kansas City, Pike, and Chicago, chartered in May, 1900, to build from Kansas City to Fort Stillwell, on the west coast of old Mexico, has in operation a portion of its line, south from Anthony, in Harper County, into Texas. Grading has been done for a portion of its road-bed in Lyon County. In November preparations were begun on an electric line to connect Wichita with McPherson. Surveys had also been completed for an electric line from the valley of the Kaw, connecting Kansas City, Mo., and Topeka. Only 5 of the 105 Kansas counties, and but 7 county seats, are without railroad communications.

National Guard.—The Legislature of 1901 passed a militia law, and the organization of the National Guard of the State is made to conform as closely as possible to the organization of the regular army. The membership of the National Guard is: Officers, 126; enlisted men, 1,232. There are 2 regiments of infantry, and an artillery battalion. All equipment required by the organized militia of the State is supplied by the United States to the amount of $21,241.82 annually. This equipment remains the property of the United States, the State being held to close accountability. The value of the property for which the State of Kansas is responsible at the close of the fiscal year ending June 30, 1902, is: Ordnance and ordnance stores, $42,020.72; quartermaster’s supplies, $55,759.01; aggregate, $97,779.73. This equipment consists of two old Napoleon smooth-bore, muzzle-loading field-guns have been discarded, and the artillery is now equipped with 4.3-inch breech-loading steel guns. The infantry is equipped with the Springfield rifle. The militia took part in the military maneuvers conducted by the regular army at Fort Riley in September, the Legislature having made an appropriation for an annual muster, and on being invited to do so, the militia men participated with the regulars in their mimic war. For the maintenance of the National Guard for the fiscal years ending June 30, 1904, and June 30, 1905, the Adjutant-General recommends that the Legislature make an appropriation of $60,040.

Free Employment Agency.—December closed the twentieth month for the State Free Employment Bureau established by the last Legislature (1901). In that time 4,694 applications for work were received, of which 5,971 were supplied. It is believed by the office that 1,640 were not filled by reason of the applicants being wanted for work in the State.

The wages offered were largely in excess of the ruling rates during previous years, yet men could not be obtained from any source. The total figures, as shown by the director’s consolidated report, are: Work and help desired, 6,687; furnished, 4,937; not secured, 1,750. The State employment agent works in connection with the clerks of cities of the first and second class, the clerks receiving no additional remuneration for this work. All books and blanks are furnished by the State, the clerks furnishing a room in which to do the business. No charges are made to those seeking employment. In 1902, 1903, and 1904, the income of the office, a large number of the most part, housemaids and common laborers have benefited in greatest degree by the new law, although it is planned for all classes.
work. The matter of seeing that the law is obeyed is in the hands of the State Labor Com-
mmissioner. The first decision of the law by taking 9 cases into court—the same number as last year. In 55 cases the law was enforced without litigation; about one-fourth of the number of new cases settled in this manner to date with it in the previous year; but the number of men affected by the decisions was about 5,000, against one-
fifth that number in the previous year. Several cases this year involved large numbers of men. In several instances the State Labor Commis-
sioner acted as a mediator in disputes arising be-
tween workmen and employers, and affected amicable settlements. The year was marked by a great increase in the strength and extension of labor-unions, the number growing from 337 to 396, the new unions and the increases in the old ones making the total number of members greater by 17,000.

Antiliquor Work.—Mrs. Carrie Nation, the erratic Kansas woman who in 1901 began a spec-
tacular campaign against liquor in Kansas, smashing several bars herself, after being re-
leased from jail in Topeka in the early part of the year, set out on a lecturing-tour, and ap-
ppeared in the camps in the field. She returned to Topeka in November, and the day after her ar-
ival created a disturbance on the street and was promptly placed in jail, in default of pay-
ment of the fine imposed, whereupon she returned to her old plan of writing letters to newspapers, denouncing officials, from President Roosevelt down to the police judge of Topeka, for what she termed the contumancy in the liquor traffic. After eleven days in jail she was released, where-
upon she immediately began to hold meetings again, and to work on the organization of a new political party, its object being the suppression of the liquor traffic.

An investigation following the November elec-
tions, made by the State Temperance Union, re-
vealed that in 36 out of 62 counties reporting the enforcement of the prohibitory law was an issue in the campaign, while in 40 it was not. Announcement was made by the union that an aggrieved party could appeal to the Supreme Court for the purpose of winning the spring municipal elections.

More than ordinary interest was manifested in the work with regard to the prohibitory law during the year, partly because of the fact that in Topeka, always the head and center of the work for prohibition, a Democrat was seated as mayor after a contest case had been carried to the Supreme Court, and open saloons were al-
lowed to run in the capital city on payment of a monthly "fine"—a plan followed in practically all the larger towns of the State and in many of the smaller ones, but which was new to Topeka.

Legal Decisions.—In the case of The Atchison,
Topeka and Santa Fé Railway Company v. The Kan-
sass City, Mexico and Orient Railway Com-
pany (not yet reported) the Supreme Court held that "one railway corporation may, under the general statutes of eminent domain, condemn for its right of way real estate belonging to an-
other corporation not in actual and necessary use for railway purposes."

In the Consolidated Electric Light and Power Company v. Daniel Healy and Co. (not yet reported) the court said in its syllabus: "It is the law of this State that one who maintains on his pre-
isses what is called an "attractive nuisance," that is, a place wherein to those of ordinary knowledge and prudence, is so enticing to others excusably lacking in intelli-
gencc and caution as to induce them to venture to it, is liable for resulting injuries to the latter; and the same rule of liability applies if the person on his own premises a dangerous instrumentality not in itself attractive, but placed in such im-
mediate proximity to an attractive situation on the premises of another as to constitute a danger to the one and not of itself dangerous,"

Rural Free Delivery.—At the beginning of the year, 539 rural free-delivery routes were in operation in the State, the carriers' monthly wages amounting to $15,387.96. By the end of the year there were in operation 652 routes, the December payment of carriers' wages being $33,-
000. There were pending 417 applications for new routes, and 94 reports were awaiting the action of the department in December.

Political.—State elections are held in Kansas in the even-numbered years. Six tickets were placed in the field in 1902: Republican, Demo-
cratic, Prohibition, Socialistic, and Populist. The Democratic forces represented the old-line Demo-
crats and the great majority of the old Populist party. For the first time in Kansas these two organizations went into the field under a single ticket heading on the Australian ballot. This was made necessary by the passage of a law by the Legislature of 1901 prohibiting the use of the names of any candidates from appearing under more than one ticket heading on the ballot. It had been the practise for the Democrats and Populists to nominate the same candidates, run-
ing them under both "Democrat" and "Demo-
cratic" headings. Both parties held their con-
ventions as usual, but by agreement there was a division of offices, and it was decided to call the fusion forces "Democrats." This action marked the death of the once dominant Popu-
list party in Kansas. The original Democrats met in convention at Wichita, on May 22, and nominated their portion of the ticket as follows: For Justice of the Supreme Court, two-year term, John C. Cannon; six-year term, J. D. McClure; Governor, W. H. Craddock; Secre-
tary of State, C. H. cedar; Auditor, W. W. Lewis; Superintendent of Instruction, William Sense. Mr. Sense withdrew and his place was taken by William Stryker. The Democrats passed resolutions in which they reaffirmed their faith in the national platform of 1900; denounced trusts, and declared the Republican party was responsible for them; denounced the Republican Legislature for passing the ballot law making it impossible for a candidate to have his name in more than one place on the ballot; favored re-
form in the tax laws of the State, and such changes in the law as would reach trusts and monopolies and give to municipalities the right to determine as to methods of taxation respecting local matters; declared for the owner-ship and operation of all public-service functions by and in the control of the people; declared in favor of electing a Legislature free from "rail-
road domination"; declared in favor of legisla-
tion prohibiting railroad passes; approved the position taken by the Democratic members of Congress with respect to the duty of the United States toward the Philippines; condemned the "official action and inaction" of the Republican administration for "cowardly dodging" on the Kansas prohibitory question; declared in favor of resubmitting the prohibitory amendment to a vote of the people.

On June 24 the Populist wing of the party met in Topeka and completed the ticket by nomi-

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tang: For Justices of the Supreme Court, six-year terms, Edwin S. Waterbury and Benjamin F. Mil- toton; nine-year terms, Nathan H. Clowers; Lieutenant-Governor, Fred J. Close; Treasurer, David H. Heffebower; Superintendent of Insurance, Dan Hart; Congressmen at Large, Jeremiah B. Botsford, S. B. Hefley, and E. J. Bonar. The resolutions passed in which they reaffirmed the principles of the last national platform; demanded initiative and referendum as necessary to secure needed legislation in the interests of producer and laborer and to correct abuses; demanded the enactment of a primary election law by means of which fair expression of opinion in selecting candidates might be secured; approved the declaration of the Democratic State platform in regard to trusts, taxation of corporations, public ownership, and passes; denounced the Republican party for "subserviency to trusts and combines," and its maintenance of an "unnecessary and burdensome tariff on lunch-made goods"; and for its refusal to give promised relief to Cuba by reducing sugar tariff; denounced the tariff law passed by the Republicans; criticized the Republicans for failure to provide a railroad commission elected by popular vote; denounced the extra session of the Supreme Court which he charged was "not National but in the hands of the Republican Legislature in 1901"; demanded that railroad property be assessed at as high rate as the property of "natural citizens"; favored graduated taxation, State Insurance, and the reduction of the extravagant expenditures for public printing by the installation of a plant owned by the State; demanded, on the part of the next Legislature, a rigid examination of all the books followed by the American Book Company in introducing its publications into the schools; deposed the death of President McKinley, and demanded legislation to stamp out the "whole viperous brood of murderous anarchists" in the United States.

On May 25 the Republicans met in State convention in Wichita, and nominated: For Justices, six-year terms, H. F. Mason, J. C. Pollock, A. L. Greene; four-year term, A. H. Ellis (Justice Ellis died on Sept. 25 and his place on the bench filed by A. D. Burch, whose name was also placed on the ticket instead of that of Justice Ellis); two-year term, E. W. Cunningham; Governor, W. J. Bailey; Lieutenant-Governor, D. J. H. Hansen; Secretary of State, J. R. Burrow; Treasurer, T. T. Kelly; Auditor, Seth G. Wells; Attorney-General, C. C. Coleman; Superintendent of Instruction, Insley L. Dayhoff; Superintendent of Insurance, Charles H. Luling; Congressman at Large, Charles F. Scott. The Republicans passed resolutions in which they reaffirmed adherence to the national platform of 1900; mourned the death of President McKinley and demanded early passage of law for protection of Presidents from similar assaults; heartily approved the administration of President Roosevelt, and pledged him support for nomination in 1904; declared in favor of liberal pensions for soldiers of the civil war, their widows and orphans; condemned the attacks made on the army in the Philippines; approved the efforts of the administration to enforce the Sherman antitrust law; reaffirmed faith in a protective tariff, and recommended such reciprocal relations as would open new markets without interfering with home industries; approved legislation barring Chinese immigration; approved abrogation of the Clayton-Bulwer treaty; and condemned the "government's" non-intervention in Cuba. The Prohibitionists nominated: For Governor, F. W. Emerson; Lieutenant-Governor, W. Buffing-
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Ray: Attorney-General, R. J. Breckinridge, succeeded April 1 by Clifton J. Pratt; Superintendent of Education, H. V. McChesney; Commissioner of Agriculture, J. B. Chenault; Chairman of the Railroad Commission, C. C. McChord; Prison Commissioners, J. M. Richardson, E. Fennell; State Inspector, H. B. Hines—all Democrats but Pratt; Chief Justice of the Court of Appeals, T. H. Paynter, Democrat; Associate Justices, J. D. White, Democrat; George DuRelle, Republican; A. Roling Burnam, Republican; B. L. D. Guffy, Republican; J. F. Hobson, Democrat; E. C. O'Rear, Republican; Clerk, S. J. Shackleford, Democrat.

The term of office of State officials are held in November of the years next preceding presidential elections.

The term of office is four years. The Legislature consists of 38 Senators and 100 Representatives, and is required to meet after the first Monday of January in even-numbered years.

Education.—The number of illiterates in the State, according to the census of 1900, was 202,- 914; the average age of pupils between ten and fourteen years of age who were able to read and write was 91.56. In 1890 it was 85.17. Relatively, Kentucky occupies about the same place on this account that it has long been one of the principal streets, July 17. Another was lynched at Russellville in August for assault and murder—his victim a girl sixteen years old, daughter of his former employer, with whom he had run away.

On Feb. 12 a battle was reported at Middlesboro between officers and mountaineers. The officers were trying to arrest a saloon-keeper. In the fight the saloon was burned. The number of the dead was supposed to be at least 6. The saloon was notorious for the number of men that had been killed there—53 before the fight in February.

Under the title "Race War," an account was given in March of an occurrence at Madison Bend in which 2 negroes were shot and 3 were beaten almost to death. Their offense was stealing chickens.

Election Frauds.—Two men were convicted in the federal court at London, in November, of gross frauds committed in Lexington at the November election of 1890; and 3 others were indicted by the London Grand Jury on similar charges in Louisville in the election of 1902. They were charged with violation of the federal election laws in regard to registration. During the congressional registrars met in June and refused to allow a number of colored voters to register because of their Republican affiliations.

Legislative Session.—The General Assembly was in session from Jan. 7 to March 12. N. W. Utley was president pro tem. of the Senate, and Gerald Finn was Speaker of the House. There were 26 Democrats in the Senate and 74 in the House: 12 Republicans in the Senate and 25 in the House.

The House adjourned Feb. 3, on motion of a Representative, who said: "Mr. Speaker, I move that this house now adjourn out of respect to the memory of Gov. William Goebel, who died and passed to heaven two years ago to-day."

The Senate also adjourned.

The power of appointment of the legal assistant for the Attorney-General was taken from the Attorney-General and given to the State Auditor. The courts had decided that Clifton J. Pratt, Republican, was the rightful claimant of the office of Attorney-General, then held by R. J. Breckinridge, Democrat. The Auditor announced that he would reappoint Breckinridge's assistant.

The right to vote in school elections in sec-
ond-class cities was taken from women; but they have the right to serve on school boards.

The law regarding the sale of the dower rights of intestate women was amended.

The charters of cities of the second, fourth, and sixth classes were amended. It was provided that the State shall pay its proportion of the cost of improvements of streets in cities of the second class.

A free public library in Louisville was provided for, enabling the city to accept the Carnegie offer of $200,000. The establishment of libraries in cities of the second class was provided for; and the creation of a free-library commission.

The office of Inspector of Labor, with a salary of $1,200, was created.

Mine operators are required to pay employees once in two weeks, instead of once a month.

A new revenue law was enacted. The so-called "McCain" tobacco law was repealed; as was also the law allowing county judges, on petition of citizens, to call out guards to protect property from mobs.

A bill was passed to protect wild birds and their nests. It does not refer to game-birds. A bill was passed, also, to prohibit the docking of horses' tails, but it was vetoed on the ground that it would interfere with the sale of Kentucky horses in the East, and that the statute on cruelty to animals, if enforced, would prevent the practice if it could be shown to be cruel.

A bill requiring the certificates of registration to be issued to voters in cities and towns of Kentucky without presentation of which at the polls on the day of the general election no such voter could exercise his right of suffrage was passed in the lower house and signed there, but was reported to have disappeared without reaching the Senate.

The double-liability clause of the statute on corporations was repealed. The new law relieves all corporations from double liability on its stock save banks, trust companies, and insurance and investment companies.

The life-insurance laws were amended so that policies shall have a cash surrender value only after the third annual premium has been paid. There are four classes of insurance companies for investments of accumulations was enlarged.

Among the appropriations were $17,000 annually for the State militia; $15,000 for improvement at Forts Sumter, Porter, and Totten; $20,000 for improvements at Eddyville prison; $10,000 for the Children's Home Society; $110,000 for the Eastern and Central Asylums, and $60,000 for the Deaf-Mute School, at Danville; $2,000 for a monument over Confederate graves at Perryville; $15,000 annually for the State fair; $16,000 for the colored normal school at Frankfort, the name of which was changed to the Kentucky Normal and Industrial School.

Other measures passed were: Providing for the maintenance of a Confederate home by the State. Ceding to the Government jurisdiction over certain land in Boyle County for the establishment of a military park at Perryville.

Providing for the erection of levees along the Ohio river by ceding to the United States Government jurisdiction over certain land.

To suppress "blind tigers."

Making the first Monday in September, Labor Day, a legal holiday.

Making abduction for ransom a felony.

Making attempted rape a felony.

Fixing $100 as the per capita for inmates of the House of Reformation.

Creating a board of examiners for barbers in cities of the first, second, and third classes, and requiring an examination by the board before a certificate is issued allowing the practise of the trade. The bill has also provisions for the inspection of barber shops for the purpose of preserving sanitary conditions.

Authorizing the legal voters of a county to vote a tax for extension of the common-school term.

Political.—The contest for the minor State offices that arose from the disputed election when Goebel and Taylor were the candidates for Governor was ended this year by the decision that Clifton J. Pratt, the Republican candidate for Attorney-General, had been legally elected. Mr. Pratt, who had been compelled by a former decision to give up the office to R. J. Breckinridge, the Democratic candidate, took possession of the office again April 1.

At the November election the Democratic candidates for Congressmen were elected in all the districts except the Eleventh, where Vincent Boreing, Republican, had 8,013 plurality. Justices Guffy and DuRelle, of the Court of Appeals, were defeated by the Democratic candidates, W. E. Settle and H. S. Parker.

The eligibility of Gov. Beckham, under the State Constitution, to succeed himself has been questioned; but a bill has been introduced that would have agreed that he is eligible and he has announced his candidacy for the nomination at the Democratic primary to be held May 9, 1905. The action of the State Committee in calling the primary was strongly opposed by a section of the party, and proceedings were taken to serve an injunction.

LOUISIANA, a Southern State, admitted to the Union April 30, 1812; area, 48,730 square miles. The population, according to each decennial census since admission, was 162,923 in 1820; 215,739 in 1830; 362,411 in 1840; 517,726 in 1850; 708,002 in 1860; 726,915 in 1870; 939,946 in 1880; 1,118,587 in 1890; and 1,381,625 in 1900. Capital, Baton Rouge.

Government.—The following were the State officers in 1902: Governor, William W. Heard; Lieutenant-Governor, Albert Estopinal; Secretary of State, John T. Michel; Attorney-General, Walter Guion; Treasurer, Ledoux E. Smith; Auditor, W. S. Fraze; Superintendent of Education, J. V. Calhoun; Adjutant-General, Allen Jumel; Commissioner of Agriculture and Immigration, Jordan L. Crump; Commissioner of Public Instruction, C. A. Davis; Commissioner of Prisons, L. G. Lee; Railroad Commissioner, C. R. E. Jackson; Inspector of Banks, W. L. Foster, Overton Cade; Registrar of the Land Office, J. M. Smith; Chief Justice of the Supreme Court, Francis T. Nicholls; Associate Justices, Newton C. Blanchard, Joseph A. Breux, Frank A. Monroe, O. O. Provosty; Clerk, T. McC. Hunman. All are Democrats.

The term of the State officers is four years; they are elected in April of the years of presidential elections. The Legislature meets biennially in May of the even-numbered years; the length of the session is limited to sixty days.

Finances.—The Treasury transactions for 1900-'01 are summarized as follow: The total receipts from all sources, including cash balances on hand and transfers, for 1900, to Dec. 31 of that year, are $5,549,274.84. The total disbursements for all purposes for the same period, $4,243,583.31; balance, $1,305,691.63. The gross receipts for the year 1901 and cash balances on hand aggregated $5,188,733.49; the disbursements, $4,975.75. The total receipts in 1902 were $4,150,067.60, and the balance on hand $1,392,047.37.

The Treasurer's report says the gross receipts to the general fund for 1900 amounted to $329,630.00, while the expenses of the general fund for the
same period were $1,055,717.04, an excess of expenditures over receipts of $120,686.22. This was promptly met by a borrowing to the credit of that fund, amounting to $214,433.80.

In 1901 the receipts of the general fund were $1,015,499, while the expenses were $575,964.37, showing an excess of $149,534.83.

Since the organization of the Pension Board in 1898 there have been 1,871 beneficiaries, and $175,000 has been paid out.

The total of State assessments for 1902 was $315,583.48. For 1901 it was $301,215.22.

The official schedule of appraisement of railroads, telegraph, telephone, express companies, etc., in the State, shows a net increased assessment of approximately $2,000,000. This increase is almost wholly made up of new lines and actual increased values.

Education.—The number of illiterates in the State ten years of age and over was 381,145 in 1900. Of these, 284,028 were negroes and 566 Indians and Chinese. In the percentage of persons from ten to fourteen who were able to read and write, Louisiana stood near the head of the list of the States, with 67.12 per cent. It is pointed out that there are three facts which explain the proportion of illiteracy in the State: First, the large negro population; second, the fact that in the southern part of the State a majority of the population speaks a foreign language, and is therefore difficult to reach through the public schools; third, the large proportion of children compared with adults and wage-earners.

In 1901 the total enumeration of school-children in the State was 404,757, and the enrolment in the schools 190,936. The demand for 1901, including balance on hand, amounted to $1,396,892, and expenditures $1,236,647.57. For 1902 it was estimated that the apportionment of $1 mill for the schools would yield $475,000, to which are to be added the interest on sixteenth sections, amounting to $62,838, which, with the proceeds from the poll-tax and the local taxes for schools, aggregate about $1,500,000. This sum when prorated among the 404,757 children of educable age, gives a per capita of $3.70. Prorated among the 186,896 children enrolled in the public schools, the per capita is $5.80.

The number of pupils in Catholic schools is given as 23,386.

The Peabody Normal School, at Alexandria, reported pupils in 1901, including balance on hand, amounted to $1,396,892, and expenditures $1,236,647.57. For 1902 it was estimated that the apportionment of $1 mill for the schools would yield $475,000, to which are to be added the interest on sixteenth sections, amounting to $62,838, which, with the proceeds from the poll-tax and the local taxes for schools, aggregate about $1,500,000. This sum when prorated among the 404,757 children of educable age, gives a per capita of $3.70. Prorated among the 186,896 children enrolled in the public schools, the per capita is $5.80.

The Rice College of the State in 1901-92 was given in September as 880,000 bales. There were 6 cotton-mills, with 1,029 looms and 66,652 spindles, consuming 18,017 bales.

At a meeting of citizens interested in the production of sugar, at New Orleans, in January, a protest was adopted against the proposition to remit the duties on sugar brought in from Cuba.

The rice-crop of Louisiana and Texas, in 1901, was estimated at 3,250,000 bags of which Louisiana probably produced 2,720,000 bags and Texas 530,000. The estimated production of the two States, 1902, was 3,100,194 bags.

The census bulletin gives the number of farms in Texas, in 1900 as 115,918, and of Nebraska, 9,115, the State industrial schools at Ruston and at Lafayette, the Louisiana State University and Agricultural and Mechanical College at Baton Rouge, the Southern University at New Orleans, the Institute for the Deaf-Mutes and for the Blind at Baton Rouge, are maintained by the State, save the State University, at Baton Rouge, which is maintained by the State and the United States jointly. Tu- lane University, at New Orleans, is liberally aided by the State by means of the exemption of its rent-bearing property from taxation. The Legislature of 1902 appropriated the sum of $175,900 for new buildings, repairs, additions, equipments, etc., for the Institute for the Blind, the State Normal School, the industrial schools at Ruston and Lafayette, and the State University, at Baton Rouge.

Conclusively, the average distribution of the convicts in 1901 was: Within walls, 105; at Angola, 653; at Hope, 184; at levee camps, 320; total, 1,039.

The value of farm property was $198,536,906 in 1900 and $110,447,005 in 1900. Of the owners of farms in the census year 36,255 were white and 8,400 were colored. Of the tenants, 18,531 were whites and 48,703 were colored. In 1900, 21.2 per cent. of the total acreage was operated by colored farmers, while less than 10 per cent. was actually owned by them. The average of corn to the acre in 1902, by the preliminary estimate, was 12.5; the average for ten years, 16.4.

The growth in the value of mill-products was from $67,806,713 in 1890 to $121,181,683 in 1890.

The leading industry of Louisiana is the manufacture and refining of sugar and molasses. The 384 establishments reported in 1890 gave employment to 6,504 wage-earners, or 15.4 per cent. of the wage-earners employed in the State, and the products were valued at $47,801,091, or 39.5 per cent. of the total value of the products of the State.

The manufacture of lumber and timber products ranks second in importance, with 432 establish-
ments, 10,171 wage-earners, and products valued at $17,405,513.

The manufacture of cottonseed oil and cake holds third place among the manufacturing industries of the State. There were 24 establishments in 1800, with 1,317 wage-earners and products valued at $7,292,652. The refining of cottonseed oil is a branch of the industry recently established in New Orleans.

Lawlessness.—Two negroes were lynched in West Carroll Parish, in January, for the murder of a police juror who attempted to arrest them for stealing from him. Another negro murderer was lynched in Vidalia, March 19. Near Cocoa, in June, a negro was hanged by a mob for criminal assault, and another for the same crime near Homer, Aug. 7.

A street-car strike in New Orleans in October was attended with rioting and bloodshed. The entire National Guard of the State was called to the city.

Legislative Session.—The Legislature was in session from May 12 to July 10. J. Y. Sanders was Speaker of the House.

The nominations of Justices Provery and Breaux to succeed themselves were confirmed. Bills of organization of 4 and 7 congressional districts of the State into 7 congressional districts, the State being entitled to one more Representative by the last census. The legislative districts also were redivided.

A revenue bill passed with the following provisions: Providing for an attorney of the Board of Assessors in New Orleans; depriving the boards of review of assessments of the power of cutting down assessments; providing for the taxation of standing timber owned by a person other than the landowner; providing for the redistribution of the 6-mill tax, which, on an assessment of $301,000,000, will yield revenues as follow: General fund, 11 mill; $451,500; school fund, 12 mill, $451,500; interest tax fund, 2 mills, $602,000; engineer fund, 1 mill, $301,000. There is an additional provision that a sum equal to one-eighth of 1 mill shall be transferred from the surplus in the general fund to the school fund, which will bring that fund up to $491,125.

A revenue bill was passed affecting New Orleans only, but important in its provisions. It gives to the voters in general the management of the fund for the sewerage and water-supply. A 12-mill tax in the city put up this fund, amounting to about $14,000,000, and voted that the handling of the money should be put into the care of the Drainage Commission, to which should be titled the property taxpayers, to be appointed by the mayor.

The bills affecting New Orleans were, besides the merger bill, an appropriation of $200,000 for a court-house; an act allowing cities to anticipate their revenues for ten years; changing the date of the city election to November 10, 1904, and every fourth year thereafter; providing for the succession of the city to the property of the Drainage Commission, of a firemen's pension fund, by using as a nucleus 1 per cent. of the city licenses collected; and the constitutional amendment elsewhere mentioned, enabling the city to fund $500,000 of certificates invalidated by a court decision.

Other acts were:

For an exhibit of Louisiana's resources at the Louisiana Purchase Exposition, making an appropriation of $100,000.

Making an appropriation to celebrate the centennial anniversary of the transfer of the territory of Louisiana to the United States at New Orleans in December.

To establish an insane asylum for colored persons, and making an appropriation of $100,000 for it.

To provide substantial artificial limbs for the citizens of the State who lost a limb or limbs in the military service of the Confederate States.

Among the larger appropriations were: Expenses of the General Assembly, $20,000; State printing, two years, $70,000; public schools, $450,000; constructing and repairing levees, $300,000; interest consolidated bonds, $435,112; militia, $29,500; and for maintenance of State institutions, as follows: Institute for the Blind, $12,000; for the Deaf-Mutes, $21,600; university, $15,000; Normal School, $27,200; Industrial Institute, $15,000; Southwestern Industrial Institute, $12,000; Southern University, $10,000; Asylum for Insane, $140,000; Charity Hospitals, $122,000; Lepers' Home, $10,000; Soldiers' Home, $17,500; pensions, $75,000; support of Penitentiary, $290,000. The general appropriation bill carries a million dollars a year. The special appropriations reached nearly $500,000.

A bill providing that no history should be used in the schools of the State that did not give credit for the victory at Santiago to Admiral Schley was passed, but was vetoed. A bill to create the position of a representative by the people of the State. A proposal to amend the Constitution so as to allow the Governor to succeed himself was not pressed, as the Governor disapproved of it.

Among important bills that failed was an anti-trust bill and an antilynching bill, giving the Governor power to transfer prisoners and grant change of venue where lynchings are threatened. A separate street-car bill was passed. A general bill for violation of the law it was attacked as unconstitutional, and the judge of the Second Orleans Criminal Court sustained the demurrer.

Court Decisions.—In June the United States Supreme Court decided that Louisiana or any other State has the right to pass laws excluding bodies of people from going into a city or community which is quarantined.

In case involving the question whether the wages of a locomotive engineer were exempt from seizure for debt under the provision of law exempting "laborers' wages" the State, affecting New Orleans only, but important in its provisions. It gives to the voters in general the management of the fund for the sewerage and water-supply. A 12-mill tax in the city put up this fund, amounting to about $14,000,000, and voted that the handling of the money should be put into the care of the Drainage Commission, to which should be titled the property taxpayers, to be appointed by the mayor.

The bills affecting New Orleans were, besides the merger bill, an appropriation of $200,000 for a court-house; an act allowing cities to anticipate their revenues for ten years; changing the date of the city election to November 10, 1904, and every fourth year thereafter; providing for the succession of the city to the property of the Drainage Commission, of a firemen's pension fund, by using as a nucleus 1 per cent. of the city licenses collected; and the constitutional amendment elsewhere mentioned, enabling the city to fund $500,000 of certificates invalidated by a court decision.

Other acts were:

For an exhibit of Louisiana's resources at the Louisiana Purchase Exposition, making an appropriation of $100,000.

Making an appropriation to celebrate the centennial anniversary of the transfer of the territory of Louisiana to the United States at New Orleans in December.

To establish an insane asylum for colored per-
$4,000. Dissenting opinions were that the loss could not be so divided, that the agreement of the buyer to assume all risks either covered the extraordinary case of the destruction of the trees or covered only the order of trees.

Public Works.—Work was begun in the summer on a canal to run 75 miles from Washington, through St. Landry and Acadia Parishes, to the Bayou de la Salle, and into Calcasieu Parish. This canal will be 250 feet wide, and there is an ample water-supply at Washington, on a branch of the Atchafalaya and Mississippi rivers. It is proposed to build this canal and equip it with the most modern appliances, sufficient to irrigate from 500,000 to 700,000 acres, which to-day is prairie.

A good Intent dry-dock, at Algiers, opposite New Orleans, sank Dec. 27. It was built thirty-five years ago, and cost originally $36,000, but many thousands have been spent in improvements upon it.

Biological Station.—A biological station has been established at the mouth of Calcasieu river, in Cameron Parish. A large building has been erected, and many specimens of the Gulf's rich fauna have been collected.

Alleged Violation of Neutrality.—A flurry of excitement was caused in the spring by the statement of Gen. Pearson, representative of the Boers, that there was at Chalmette a base of supplies and enlistment station for the use of the British in the South African War. The Governor laid the facts before the Government at Washington. As hostilities ceased soon afterward, there was no occasion for further action.

Political.—At the election in November for members of Congress only 20,265 votes were polled, although the number of possible voters in the State is 235,344. In New Orleans, where there are about 40,000 citizens qualified to be voters, only about 16,000 were registered, and not all of these voted.

The small number voting is due in part to the effect of the new Constitution in disfranchising a large percentage of otherwise qualified voters, in part to the requirement of a poll-tax payment of $1, which in part to the fact that there is practically but one party, there is little interest in elections. The 7 members of Congress are all Democrats.

The constitutional amendments were submitted, 4 of which were carried. They are: 1, to make valid certain contracts for works of public improvement in New Orleans; 2, relating to the payment of judicial expenses; 3, creating a special board of appraisers; 4, changing the specifications of property exempt from taxation. The exemptions include church, school, and library property, household property to the value of $500, mining and certain manufacturing property for ten years; certain exemptions to railroads hereafter built and completed before 1904, and property used by the National Guard for military purposes.

The 2 amendments that were defeated were: 1, the repeal of the poll-tax payment as a requisite for voting; 2, changes in the judiciary system, creating more judgeships, and providing that only cases involving $5,000 or more can be carried to the Supreme Court. The limit remains $2,000.

Reports of registered voters and poll-taxes paid appear to give proof of the claim that the poll-tax requirement has not operated to disfranchise negroes, those registered having as a rule paid the tax, while many white citizens have refused or neglected to do so. These figures showing that in 10 parishes where there were 11,096 white voters 21,951 poll-taxes were paid in 1900.

MAINE, a New England State, admitted to the Union March 15, 1820; area, 33,040 square miles. The population, according to the decennial census since admission, was 236,288 in 1820; 391,455 in 1830; 501,793 in 1840; 701,264 in 1850; 625,278 in 1860; 626,915 in 1870; 648,396 in 1880; 661,086 in 1890; and 694,466 in 1900. Capital, Augusta.

Government.—The following were the State officers in 1902: Governor, John F. Hill; Secretary of State, Byron Boyd; Treasurer, Ormandal Smith; Attorney-General, George M. Seiders; Superintendent of Education, W. W. Stetson; Adjutant-General, Augustus B. Farnham; Commissioner of Labor, Samuel W. Matthews; Bank Examiner, F. E. Timberlake; Insurance Commissioner, S. W. Carr; Liquor Commissioner, James W. Wakefield, who died June 6 and was succeeded by Justin M. Leavitt; Railroad Commissioners, Joseph B. Peakes, B. F. Chadbourne, Parker Spofford; Assessors, George Pottle, Otis Hayford, F. M. Simpson; Librarian, Leonard D. Carver; Pension Agent, E. C. Miliken; Commissioner of Agriculture, Augustus W. Gilman; Land Agent and Forest Commissioner, Edgar E. Ring; Superintendent of Buildings, E. C. Stevens; Registrar of Statistics, A. G. Young; Steamboat Inspectors, Horace Atwood, J. M. Taylor; Chairman of Commission of Inland Fisheries and Game, L. T. Carleton; Chief Justice of the Supreme Court, Andrew W. P. Wiswell; Associate Justices, Lucilius A. Emery, W. F. Whitehouse, Sewall C. Strout, Albert R. Savage, Frederick A. Powers, Henry C. Peabody, and Albert M. Spear, the last named succeeding William H. Fogler, who died in February; Clerk, W. S. Choate. All are Republicans except Justice Strout.

The term of the State officers is two years. The election takes place on the second Monday in September of even-numbered years. The Legislature meets biennially the first Wednesday in January in the odd-numbered years; the session is not limited.

Finances.—The Treasurer's report for 1901 was rendered in February. The total receipts for the year amounted to $2,392,022.88, with the cash on hand at the beginning of the year, $198,879.01, makes the sum of $2,590,901.87 to be accounted for.

The total expenditures for the year amounted to $2,293,044.70, leaving a balance on hand Dec. 31, 1901, of $297,837.17, or the sum of $95,938.16 more than was on hand at the beginning of the year 1901.

The bonded debt amounts to $2,053,000; the temporary loans to $250,000; the trust funds, upon which interest is paid, to $794,092.

The State has liabilities amounting to $177,894.08, upon which no interest is paid, being deposits of insurance companies. Other liabilities amount to $856,191, and $361,726.13 is due counties for county taxes paid, making the total liabilities of the State $4,169,813.25.

The income from the organization of new corporations and the increase of capital stock of old ones in 1901 was $50,775. For the first ten months of 1902 it was $75,095.

The taxes on savings-banks amounted to $500,470.92 in 1901, and $537,729.51 in 1902. The tax on loan associations was $214.43 in 1901 and $262.47 in 1902. The taxes on railroads in 1901 amounted to $291,460; the increase in 1902 was about $35,000. Other receipts were: Trust and banking companies, $810; income from life, fire, and marine insurance, $592.36; telegraph, telephone, and express companies, $25,186.23; insurance companies, taxes and fees, $86,953.28; collateral inheritances, $35,
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1891.41; public lands, income, $13,408.08; shore reclamation, Indiana, $3,474.50; lines and licenses, fish and game, $8,582.98; from United States, account Spanish War, $28,263.21. The receipts from dog licenses amounted in 1901 to $28,968; payments for damage to domestic animals by game, 18,000 the year. The remainder of the fund goes back to the town treasuries.

Valuations.—In 1901 the total valuation of the state, except the wild lands, was $317,667,594. The wild lands were valued in 1900 at $10,197,407. The money at interest in the State, so far as the assessors were able to ascertain for taxation for 1905, amounts to $11,308,877.

The total debt of all the towns is given as approximately $8,780,100, or 2.7 per cent. of valuation. This does not include the plantations. More than two-thirds of the total is owed by the cities; 122 towns are free from debt, and 12 have a surplus. The real and personal property of the 20 cities as locally assessed amounts to $141,894,429; the valuation by the assessors is lower, amounting to about $120,000,000.

Education.—The number of illiterates of ten years and over in the State, as shown by the census of 1900, was 29,060. By the percentage of those between ten and 15 who were able to read and write, Maine stood twenty-eighth in the list, with 97.92 per cent.

The apportionment of the school fund and mill tax for 1902 disposed of $509,280.77, which is an increase of $28,118.59 over the amount apportioned in 1901. The returns to the superintendent of public schools show the total number of pupils in the State to be 21,953, the same that in 1901, with a living a fraction over $2.77 for each pupil. The number reported in 1901 was 211,834, which gave a fraction over $2.65 per pupil.

Half of the savings-bank tax goes to the schools. The increase of this and of the State valuation has largely added to the school fund in recent years. The cost of providing free textbooks averages about 98 cents to a pupil. The law compels towns to furnish them; the State provides for unincorporated places. The average wages of male teachers in 1901 were $33.65 a month, of female teachers, $26.72 a week.

The class of 1902 at the Castine Normal School numbered 50. In 1901 211 free high schools were receiving aid from the State.

The catalogue for 1902-03 shows 36 instructors and 391 students at the institution. Of these students there are 275 in the college proper and 124 in the medical school. This shows a gain of 2 instructors and 50 students over the previous year.

The class of 1875 presented the college with new entrance gates at the centennial celebration. A library building has been given by T. H. Hubbard.

The eighty-third Colby University opened in September with an entering class of 72, of whom 32 were women. At Bates College, Lewiston, a new library, the gift of Mr. Corum, was dedicated in October.

The Legislature of 1899 made an appropriation to carry into effect the act establishing free public libraries. On Oct. 29, 1899, the first library was sent out, and the selection of books for each was prepared for circulation. Although only $1,000 a year is available for the purpose, there were in 1902 68 libraries going the round of the State with about 1,400 volumes.

Military.—The number of men subject to military duty in the State in 1901 was 102,339. About 600 men were encamped at Camp Hill for the annual muster in August. The National Guard numbers 666.

In 1901, 2,571 pensioners received State aid. The annual appropriation is $60,000.

Charities and Corrections.—Report of the General Hospital, covering its thirty-second year, shows that for the year ending Sept. 30, 1,287 patients—636 male and 631 female—were admitted. There were 102 under treatment at the close of the year. In the year 75 patients died at the hospital, 741 were discharged as recovered, 297 as relieved, 21 as not relieved, and there were 112 who were examined and advised but not treated. The expenditure of the hospital for the year was $63,305. There is a deficit of about $7,000. The notable event of the year was the completion of the nurses' home to accommodate 50 nurses.

A building for surgery purposes is being constructed, costing about $33,000.

There were 92 pupils in the School for the Deaf at Portland, in 1901. The State appropriation is $17,500 a year.

The Reform School has received 2,395 boys since its first opening; there were 141 Dec. 1, 1901.

Railroads.—In 1901 reports were received from 22 steam roads and 19 railroad companies. In 1901, 21 steam and 18 street railways, consolidations having reduced the number. The gross income per mile of the 21 steam roads varies from $512 on the Wiscasset and Quebec to $13.84 on the Boston and Maine. Only a small part of the former line was in operation up to June 30, 1901, and the gross income of all the lines operated by the company is included in the average of the Boston and Maine.

There are 347.72 miles of street-railway in operation. In the construction and equipment of the street railways more than $10,000,000 has been expended, and yet the aggregate bonded indebtedness of the 18 systems in existence is only $5,723,517.83. The gross earnings for the past year aggregated $1,449,043.97, and the operating expenses amounted to $1,035,104.87.

Highways.—The Legislature of 1901 appropriated $15,000 to aid towns in building and repairing roads. One road is to be designated as the main thoroughfare and to be known as a State road. Towns establishing such roads may secure State aid not exceeding $100 to each, which will be half the amount expended. The Secretary notified that year by 41 towns, applicants, but only 5 had complied with the full provisions of the law.

Steamboats.—There are in the inland water of the State, as nearly as can be ascertained, 17 steam- vessels. The inspectors have licensed buoys to 147 masters and pilots and 156 engineers. Seventeen new steamers were added to the service in the year.

Banks.—Report of the State Examiner for 1901 is summarized as follows:

There are 51 saving banks, with assets of $57,462,171.03; 18 trust and banking companies, $420,235.55, and 34 loan and building associations, $2,565,580.96; making 103 institutions, with bonded assets of $52,655,877.56.

For the first half of 1902 the figures were: Five one-savings-banks, with total liabilities of $52,655,877.56.
The resources included cash on deposit at $255,250.38 and cash on hand of $255,250.38. The total liabilities are $503,480.24, with total cash reserves of $255,250.38, and cash on hand of $255,250.38.

The insurance companies were as follows: Risks written, $255,250.38; amount paid in premiums, $255,250.38; losses incurred, $255,250.38; losses paid, $255,250.38.

The total risks written by the miscellaneous companies was $503,480.24, against $255,250.38 in 1900. The total of losses paid was $255,250.38, while in 1900 the losses paid amounted to $255,250.38.

Four assessment companies are doing business in Maine. These totals are as follows: Policies, $1,000,000; amount paid, $1,000,000; premiums received, $1,000,000; claims paid, $1,000,000.

There were 177 establishments engaged in the canning and preserving of fish in 1900, with 5,507 wage-earners, and products valued at $1,348,401. In the manufacture of paper and wood pulp, Maine ranked third with 53 establishments with 2,851 wage-earners and products valued at $222,275.

The wooded area of the State is given as 23,700 square miles, 79 per cent. of the total land area. There were 717 establishments engaged in the manufacture of lumber and timber products in 1900, the industry second in rank, with 8,834 wage-earners and products valued at $13,489,401.

Legal Declaration. A petition, signed by thousands, was given by the Supreme Court in December. The act of 1901 requiring hawkers and peddlers to pay a license fee was declared unconstitutional.

The new defensive war which the Government has allotted Casco Bay will consist of completed of 38 rifles. Eighteen of these will be 12-inch, 10 10-inch, and 10 8-inch, to cost for guns $1,382,164 and for carriages $546,000. The large disappearing guns at Fort Williams, Portland Head, are the largest in the world. They have a range of 10,000 yards and fire 5 shots before the first one reaches its destination.

In addition there is constructing a mortar battery to contain 46 12-inch guns, to cost $1,382,164, and their carriages an additional $336,000. These, with the fortifications at Diamond and Cushing's islands, complete a line of defense which would effectively take care of any fleet that any country might send here.

The whole eastern end of Diamond Island has recently been acquired by the Government.

The ancient fortifications at Pemaguit, known as Fort William Henry, have been conveyed to the State by the Pemaguit Monument Association, and are in the charge of a commission. The foundations of the old fort, which was destroyed by Iberville, have been uncovered and a part of the wall rebuilt from the original materials, corresponding to the plan of the old fort; and it is desired to carry on the work still further, for which the Legislature is asked to make appropriation.

Centennial Anniversaries. Several towns this year celebrated the one hundred and fiftieth anniversary of their incorporation—Waterville, Minot, Brownfield, and Lincolnville. York reached this year the age of two hundred and fifty years.

Bownolham. Half the business portion of this village was destroyed by fire Dec. 14.
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Political.—A Governor, members of Congress, and a Legislature were elected in September.

The Republican convention, at Portland, June 11, renominated Gov. Hill and adopted a platform affirming the party principles, approving the policy of the administration, favoring legislation to suppress anarchy, and saying on State affairs: "Let the party hold the strong line of the administration of Gov. Hill, under which the Republican pledges of two years ago have been fully and faithfully carried out. As a result of wise legislation, the great corporate interests are bearing a larger portion of the public burdens than ever before in the history of our State. Within a few weeks the last dollar of the temporary loan, incurred largely on account of the war with Spain, will be paid. Along with this good work has gone also a substantial reduction in our permanent debt. All this has been accomplished without any increase in the State tax rate."

At Bangor, June 17, the Democratic convention nominated Samuel W. Gould for Governor and adopted a platform demanding, "the immediate abolition of all tariffs upon trust-made articles."

"We ask," it said, "why it is that the Maine Congressmen permit the steel trust to charge the ship-builders of Maine $1.65 per hundred for the same material which the English only charges the English of New England 95 cents, thereby crippling one of our State's leading industries?"

The Prohibitionists met at Bath, June 4, and nominated James Pond for Governor. Charles L. Fox was the candidate of the Socialists for the post.

The vote for Governor, Sept. 8, stood: Hill, Republican, 38,349; Gould, Democrat, 38,364; Ferriguio, Prohibition, 4,376; Fox, Socialist, 1,973. Republicans were elected to Congress in all the 4 districts.

The Legislature will have, on joint ballot, 158 Republicans to 24 Democrats. Three Republican candidates in Lewiston will contest the election of the Democratic candidates.

MARYLAND, a Middle Atlantic State, one of the original thirteen, ratified the Constitution April 28, 1788; area, 12,210 square miles. The population, according to each decennial census, was: 1790, 119,783; 1820, 388,948; 1840, 589,034; 1850, 867,049; 1860, 788,894; 1870, 834,945; 1880, 1,042,390; 1890, 1,105,304; 1900, 1,297,140.

Government.—The following were the State officers during the year: Governor, J. Walter Smith; Secretary of State, Wilfred Bateman; Comptroller, Joshua W. Hering; Treasurer, Murray Vandiver; Adjutant-General, John S. Saunders; Attorney-General, Isidor Rayner; Superintendent of Education, M. Bates Stephens; Commissioner of Insurance, Lloyd Wilkinson; Commissioner of Public Lands, E. Stanley Toadvin—all Democrats; Chief Judge of the Court of Appeals, James McSherry; Associate Judges, David Fowler, A. Hunter Boyd, Henry Page, I. Thomas Jones, John B. Briscoe, Samuel D. Schmucker, and James A. Pearce; Clerk, Allan Rutherford—all Democrats except Schmucker and Rutherford, Republicans.

The term of the State officers is four years; they are elected in November of the years preceding the presidential elections, and take office January 1st. State Appropriations and estimates for the current biennial period for current expenses are annual, beginning in January of even-numbered years, and are limited to ninety days.

Johns Hopkins University.—Feb. 22 is observed at the Johns Hopkins University as Decoration Day. This day in 1902 marked the silver jubilee of the university and the formal transfer of the presidency of the institution from Dr. Daniel Colt Gilman, who organized the university and directed its destiny from its beginning, to Prof. Ira Remsen, who had been associated with President Gilman on the faculty from the opening of the university. Eighty-three educational institutions had at least one member of their faculty present, most of them being represented by their presidents. The ceremonies extended over three days. During the exercises an announcement was made that the donors of the university of a tract of land in the city estimated to be worth $1,000,000 had relieved the university of the conditions originally connected with the gift of raising an additional $1,000,000 in cash. But $750,000 of the $1,000,000 had been raised, and as some of the subscriptions had been made conditional upon the raising of the entire $1,000,000, the friends of the university continued their efforts until June 28, when President Remsen was able to announce that the entire million-dollar fund, though no longer a condition, had been completed.

Landscape architects have been laying out the tract, which contains 151 acres of beautifully wooded lands, and the university has, in accordance with an act of the General Assembly, purchased a strip of land near the university, which the legislature had authorized to be purchased for 10 acres to the city for a public park. The trustees will follow the principle that has guided the policy of the university from the beginning and not use any of the principal for the support of the park.

The Commemoration Day was also made notable by the largest gathering of alumni of the university ever assembled, and the presentation to retiring President Gilman of a beautifully engraved and illuminated address signed by 1,012 alumni. The presentation address was by Dr. Woodrow Wilson, an alumnus of Johns Hopkins, now president of Princeton University.

In his first annual report President Remsen said: "A false impression has been spread abroad in regard to the present condition of the university. It will probably be a surprise to many to learn that the university has no debt. It has had misfortunes, but, by the good management of the trustees and the generous aid of the citizens, and of the State and of the Federal Government, it has in every instance met its obligations. A cautious policy has been necessary, but the caution has been wisely exercised so as to affect as little as possible the members of the University. As a result, the university has been practical in the increase of the salary of those who are entitled to recognition by virtue of the character of their work. This has been the cause of a good deal of hardship, but this has been in the main without complaint. The loyalty of our staff during the long period of depression is worthy of the highest praise. While the buildings of the university form a striking contrast to the costly collections that so many of the older and some of the younger institutions rejoiced in, and while many a visitor has expressed astonishment and disappointment, at the first sight of these plain structures, the fact should be emphasized that the equipment of these buildings has never been allowed to deteriorate. The laboratories are, and always have been, supplied with everything needed for the purposes of the work carried on in them. I do not believe any important piece of work, whether in the line of instruction or of research, has ever been held up for lack of means. Large sums have been expended from the beginning for the purposes of encouraging research."

Railroad,—The strong desire of the Baltimore and Ohio Railroad interests to secure a line to the Atlantic coast.
seaboard, with tide-water terminals, gave the city of Baltimore its long-looked-for opportunity to dispose of its controlling interest in the Western Maryland Railroad at a reasonable figure. The city had guaranteed the company's bonded indebtedness, and as the road was just beginning to pay its fixed charges, the road's debt to the city had been constantly growing. When it became known that a syndicate representing the Wabash interests had put in a bid for the road, competition became brisk. The Reading Railroad and other syndicates also put in bids. The bid of the Wabash syndicate of $8,751,570.45 was accepted in preference to the higher bids of its competitors, one of which was $10,000,000. The contract with the Wabash syndicate requires the purchasers to avail themselves of the extensive tide-water franchises of the Western Maryland and build terminals here.

The syndicate also purchased the interest of Washington County in the road upon the same terms upon which it acquired Baltimore city's interests. Since acquiring the Western Maryland the Wabash has bought considerable property along the water-front, and work on the terminals has already been in progress to extend the waterfront a considerable distance. Prior to purchasing the Western Maryland, the Wabash secured control of the West Virginia Central and Pittsburg Railroad. This is to be connected with the Western Maryland, to give the Wabash a transcontinental road.

The annual report of the Baltimore and Ohio Railroad shows remarkable results achieved in the construction of that company, the "cradle of railroads," which a few years ago was bankrupt. The receivers issued enormous blocks of securities to provide for improvements and new equipment. Their equipment purchases aroused opposition from the bondholders and bankers, who misapprehended their acts. Not only were large amounts of securities issued, but the maintenance expenditures of the company were also largely increased. In two years the maintenance of way and maintenance of equipment expenditures rose from $4,838,000 to $7,653,000, an increase of almost 60 per cent. In three years the Baltimore and Ohio was almost entirely reconstructed, and from a state of absolute bankruptcy it was placed upon a dividend basis. There were issued in reorganization the reorganization bondholders' certificates and reorganization expenses, nearly $42,000,000 of bonds, $10,000,000 of convertible debentures, $24,000,000 preferred stock and $6,000,000 of common stock. About $19,000,000 of cash was realized from the sale of these securities, of which more than $30,000,000 was spent for new equipment and improvements to the road.

The annual report shows gross earnings for the entire system of $622,153,150. This includes the controlled or affiliated lines, most of which were acquired during the year covered by the report. On the Baltimore and Ohio system proper the gross earnings amounted to $31,178,000. The net income for the twelve months amounted to $9,021,000.

Commerce.—Baltimore largely increased its customs receipts in 1902, as the result of an enormous increase in imports; but the exports show a marked decrease. The customs receipts amounted to $4,699,116.03, an increase of $2,829,078.63, as compared with the receipts of 1898. The value of the imports was $74,697,768, a decrease of more than $41,000,000 since 1898. In the five years the revenue from collecting the revenue fell from 13.3 cents to 5.5 cents on the dollar. The total expense of collecting in 1902 was $271,230.38, and in 1898 $250,400.69.

The following is a summary of the collections of internal revenue in 1902, in comparison with 1901: Assessments, penalties, etc., $120,371.80, decrease $770,781.21; fermented liquors, $1,486,601.30, decrease $444,134.45; distilled spirits, $2,484,890.52, decrease $396,521.17; cigars and cigarettes, $737,580.76, decrease $65,047.76; snuff, $225,000.27, decrease $53,257.34; tobacco, $765,445.90, decrease $342,971.34; special taxes, $194,053.49, decrease $24,298.72; oleomargarine, $72,721.32, increase $6,079.28; adhesive stamps, $99,729.94, decrease $499,841.49; renovating butter, $861.30, decrease $861.50. The collections amounted to $6,164,312.90, a decrease of $2,489,434.04, caused principally by the abatement of the war-revenue taxes. While the collection from fermented liquors, cigars, tobacco, and snuff are less than in the previous year, the actual manufacture and sale of the articles themselves show a substantial increase over the previous year. The decrease in distilled spirits is occasioned by the closing of one of the largest plants. The grain trade was not satisfactory. The previous year's failure of the corn-crop and the shortage of cars after the last corn-crop was ready for sale probably affected the corn-export trade, although the amount of corn exported in December—3,898,851 bushels—was very satisfactory, the quantity exported for the preceding months of the year having been only about 1,000,000 bushels more.

The exports of bituminous coal, foreign, from Baltimore in 1902 were 245,864 tons, against 405,505 tons in 1901.

Industries.—The charter records of the Superior Court show that in 1902 196 corporations, with an aggregate capital stock of $14,657,400, were formed in Baltimore for business purposes. Of these, 171, with a total capital stock of $6,073,000, are for manufacturing and trade. The remaining 25, with a total capital stock of $8,783,500, are building associations and land and loan companies.

In the shirt-making industry of Baltimore, the total product of 1901 was worth about $7,000,000; the value of the product of 1902 will probably reach $10,000,000.

In the clothing trade the volume of business exceeded that of any previous year, and the number of employees employed by manufacturers is greater. Fully 25,000 persons are employed in this industry, with steady work at good wages. The output is estimated between $19,000,000 and $20,000,000. The receipts from the clothing trade in this market in 1902 were 34,662 hogheads, about 3,000 hogheads more than in 1901. The increase was partly caused by unusually heavy receipts of the new crop, estimated at 1,800 hogheads.

Immigration.—The number of alien immigrants that arrived at this port in 1902, on whom the tax of $1 each was collected, was 47,603, compared with 27,014 in 1901 and 19,135 in 1900. They come from the following countries: Austria-Hungary, 32,435; German Empire, 5,057; Italy, 32; Roumania, 29; Russian Empire, 9,820; England, 110; Turkey in Europe, 43; Ireland and Denmark sent 1 each; Norway, 2; Scotland, 3; West Indies, 9; Servia, 13; Spain and Switzerland, 15 each. The number of immigrants that settled in Maryland, and the race or people to which they belong, in the year ended Dec. 31, 1902, was: English, 53; Roumanian, 5; German, 793; Hebrew, 632; Russian, 10; Polish, 633; Russiak, 6; Croatian and Slavonian, 5; Hungarian, 24; Roman Catholic, 106; Lithuanian, 71; Magyar, 46; total, 2,510.

Legislative Session.—The regular biennial session of the Legislature began on Jan. 1 and con-
continued until April 1. The Senate consisted of 17 Democrats and 9 Republicans, and the House of 51 Democrats and 44 Republicans. John Hubner was elected President of the Senate, and Noble Mitchell Speaker of the House. Six hundred and thirty-three bills were passed and several resolutions. One of these was a memorial urging Congress to take action to give recognition to Commodore Winfield Scott Schley as the commander of the American fleet at the battle of Santiago. There was also a joint resolution for a joint committee to adjust the Maryland-Virginia boundary-line, and to decide upon joint legislation for the preservation of the food supply of the Chesapeake Bay. A resolution was also adopted, urging the acquisition by the Government and the enlarging and deepening of the Chesapeake and Delaware Canal. The more important laws that were passed during the session were:

Amending the election law and removing some of its defects. It requires notice to all persons suspected of not being entitled to registration and an abundant opportunity for a hearing, before their names are stricken from the list. It also provides that no person coming into Maryland from another State shall be entitled to vote until one year after his intention to become a citizen of this State, shall, upon his application, have been inscribed in a book kept for the purpose by the Circuit Court clerks in the various counties and by the clerk of the Superior Court of Baltimore city. The law also provides that the names of the various candidates shall be printed on the official ballots in 12-point (pica) type, one-eighth of an inch high and in depth. At the recent elections the names of candidates in some of the counties were printed in a small, antiquated type for the evident purpose of puzzling or misleading voters who had a meager education, the invalidating of the ballot of the Negro voter being especially aimed at.

That no room or apartment in any tenement or dwelling-house shall be used except by the immediate members of the family residing therein, which shall be limited to a husband and wife and their children, for the manufacture of any article of clothing, feathers, artificial flowers, cigarettes, or cigars. Before such dwelling can be used for such purposes there must be an inspection by the Chief Officer of Industrial Statistics and a permit issued by him.

A compulsory school-attendance law. A child that is found to be an habitual or incorrigible truant to be “parental school,” to be established in each county and in the city of Baltimore.

For the appointment of a commissioner to codify the incorporation laws of the State and to prepare a general system of incorporation law, to be submitted to the next Legislature.

For the appointment of a tuberculosis commission.

Forbidding the employment of minors under sixteen years of age in handling intoxicating liquors, or in any brewery or bottling establishment where liquors are prepared or offered for sale.

To prevent the desecration of the national flag. It provides that the flag or coat of arms of the United States or any imitation thereof shall not be attached to or imprinted on any goods, wares, or merchandise, or any advertisement of the same.

Providing for a State library commission, to consist of 7 persons, of whom at least 2 shall be women. The State Comptroller on Dec. 31, 1900, Superintendent of Public Instruction, and the librarian of the Enoch Pratt Library to be ex-officio members, the others to be appointed biennially by the Governor. Its duties are to advise all public and free libraries and all committees and persons proposing to establish them as to the best means of selecting and cataloguing books and other details of management; also to organize and conduct traveling libraries.

Placing the primary elections of both parties upon practically the same footing as the general elections.

Authorizing the Mayor and City Council of Baltimore to issue stock to an amount not exceeding $1,000,000 for enlarging and improving the water service. The ordinance was submitted to the voters at the municipal election, and was ratified by a large majority.

Changing the law for a State board to examine persons desiring to practise medicine in the State. Two State boards are now provided for, one named by the Medical and Chirurgical faculty of the State of Maryland, and the other by the Maryland State Homeopathic Society, which are to examine respectively the candidates of the two schools of medicine. Physicians who have been practising in States which allow Maryland practitioners to practise without taking an examination are to be entitled to practising.

Prohibiting railroad companies from issuing, selling, or receiving tickets for passage through the city of Baltimore without coupons attached to and from the city, and allowing a stop-over privilege.

Providing a pension fund for teachers who have taught in the public or normal schools twenty-five years and have reached the age of sixty years. In the event of their becoming physically or mentally disabled they are entitled to an annual pension of $200.

Providing for the issue of bonds to the amount of $800,000, the proceeds to be used for the erection of an addition to the State-House in Annapolis, for the removal and demolition of the State Library Building and annexes, for construction of a plant to heat all the State buildings, for the completion of the Fifth Maryland Armory, and the construction of an annex to the Maryland House of Corrections.

For a State Board of Undertakers, to be appointed biennially by the Governor and to consist of 7 members, of whom 5 shall be undertakers of at least five years’ active experience.

For a State Board of Pharmacy, to be composed of 5 persons, to be appointed by the Governor. The law provides that no person shall open or conduct a pharmacy unless such person has received a certificate from the board, and no pharmacy shall at any time be left in charge of any person not a certified pharmacist to compound prescriptions or sell poisonous drugs.

Providing for the creation of a commission to investigate the cause, origin, treatment, prevention, and cure of the disease in horses called cerebro-spinal meningitis.

Making the counterfeiting of any kind of deed, will, promissory note, or document of value of any kind a felony.

For the more complete support of the Maryland Agricultural College, containing the provisions necessary to meet the requirements of the congressional acts known as “the land grant act of 1862,” “the Hatch experiment station act of 1887,” and “the Merrill act of 1890.”

Baltimore.—The city was able to meet every one of its financial obligations in 1902, and on Dec. 31, 1900, the city was in nearly $200,000 in bank. The city comptroller announced that every department lived within its appropriation for the year, and that there will probably be an unexpected bal-
ance of $1,500, which will be turned into the sinking fund. Last year the city expended about $3,402,849.92.

The Fire Department consists of 513 active men, including substitutes. The cost of operation for 1903 was as follows: Salaries, $347,305.21; expenses, $1,530,946.93; salaries and equipment of the 23 Engineering Company, $18,277.74.

City Engineer Fendall reports the expenditure of $175,000 in repairs to cobble and improve streets and $25,000 on the maintenance of and repairs to the city bridges.

Building Inspector Preston's report shows that the amount spent for improvements to public buildings for the city was $428,215.86, while for repairs and rebuilding there was spent $178,898.

The Street-Cleaning Department expended $328,925.15, out of a total appropriation of $369,040.

The collector of water rents and licenses reports the receipt of $17,055.83 from the sale of dog licenses and $31,542.92 from the sale of wagon, street-car, telephone pole, theatrical, pool, and other licenses. From water rents he collected about $853,000.

The chief engineer for the Subway Commission reports the completion of 600,000 feet of duct work in the year. Almost the only unfinished work is the connection of the Pratt Street powerhouse and substation of the United Electric Light and Power Company with the subway system.

In 1901, the net cost to the taxpayers on account of the jail, exclusive of salaries, was $13,716.10, being the lowest in the history of the institution. This record was surpassed in 1902, the net cost for the year being $10,455.35, a decrease of 24 per cent.

Political.—The Legislature, at its biennial session, elected Arthur Pue Gorman, Democrat, to succeed George L. Wellington in the United States Senate. Mr. Gorman, who was Mr. Wellington's predecessor, will take his seat on March 4, 1903. The Legislature also elected Murray Vandiver to succeed himself as State Treasurer.

At the November elections 6 members of Congress were elected, of whom 4 were Republicans and 2 Democrats. The political delegation having been solidly Republican.

MASSACHUSETTS, a New England State, occupies an area of 8,351 square miles. The population, according to each decennial census, was 378,787 in 1790; 422,945 in 1800; 472,040 in 1810; 523,159 in 1820; 610,408 in 1830; 737,099 in 1840; 904,514 in 1850; 1,231,066 in 1860; 1,457,351 in 1870; 1,783,085 in 1880; 2,238,943 in 1890; and 2,905,346 in 1900. Capital, Boston.

Government.—The following were the State officers in 1902: Governor, Winthrop Murray Crane; Lieutenant-Governor, John L. Bates; Secretary of State, William M. Olin; Treasurer, Edward S. Bradford; Auditor, Henry E. Turner; Attorney-General, Herbert Parker; Insurance Commissioner, Frederic L. Cutting; Adjutant-General, Samuel Dalton; Savings-Bank Commissioner, Warren E. Locke; James O. Otis; Prison Commissioner, F. G. Pettigrove; Margaret P. Russell, Henry Parkman, Mary V. O'Callaghan, Arthur H. Wellman; Chief of the Bureau of Labor Statistics, Warren H. Norton; Commissioner of the Board of Education, Frank A. Hill; Secretary of the Board of Agriculture, James W. Stockwell; Chief Justice of the Supreme Court, Oliver Wendell; Associate Justice, Thomas H. Hoag, appointed to the bench of the United States Supreme Court. He was succeeded by Associate Justice Marcus P. Knowlton, and Henry K. Braley was promoted from the Superior Court bench to fill the vacancy caused by Justice Knowlton's promotion. Other Associate Justices, James M. Morton, John Lathrop, James M. Barker, John W. Hammond, and William C. Loring; Clerk, Henry A. Clapp. All are Republicans.

The term of the State officers is one year; they are elected in November. The Legislature meets annually on the first Wednesday in January. The length of the session is not limited.

Finances.—The gross debt of the Commonwealth, actual and contingent, Jan. 1, 1902, was $77,896,635. Of this amount, $25,738,223 is represented by loans issued for State purposes exclusively, and $51,158,412 by loans issued for the benefit of cities and towns. Applicable to the loans issued for strictly State purposes are sinking-funds amounting to $13,278,180, making the net actual State debt $12,460,053. For the redemption of the contingent debt there are sinking-funds of $3,312,853, which makes the net contingent debt $48,645,558.

The Auditor's estimate of the sum needed for the expenditures of 1903 was $637,023.90. The reimbursement of towns for the care of the insane added $15,000 more to the expenses of the executive department than was needed in 1901. The Treasurer's department called for an increase of $10,000 for premiums on securities for the Massachusetts school fund, and a decrease of $1,000 on clerical assistance. For State and military aid $18,600 more was required; and for the Attorney-General's office $4,000 more.

In the estimates for 1903 the high prices of fuel and other supplies caused increases; and in addition each department is compelled by the new law to pay for its own printing. The Cattle Bureau asks for $100,000 for exterminating contagious diseases among animals. Last year the appropriation was $58,000. The Insurance Commissioner asks $15,700 for salaries, $29,025 for extra clerks, $4,000 for incidentals, and $4,600 for printing. The Civil-Service Commissioners ask for $25,550, an increase of $900 to cover printing. The Tax Commissioner desires $25,400, with an added sum of $9,500 for salaries; the Attorney-General $40,000, as last year, for salaries and contingent expenses; the Harbor and Land Commissioners $43,200, an increase of $1,000; the Highway Commission $34,350 for salaries, traveling expenses, etc. The Fish and Game Commissioners desire $5,830 for salaries, $1,550 for travel and incidentals, $780 for clerical expenses, and $18,445 for enforcement of game-laws, distribution of fish, etc. The Court of Land Registration asks $35,000; the Savings-Bank Commissioners the usual amount, with $5,000 added. The Auditor's estimate is $20,600, no increase; the Commissioners of War Records $10,000, as last year; the editor of the Province Laws, $1,200, an increase of $1,000. Treasurer Bradford asks for an increase of $15,000. He says that on April 1 $1,500,000 Bos-
ton and Albany bonds, a part of the investment, matured and were paid. Other investments in time securities are constantly maturing, so that on Nov. 5 there was $87,258.42 of the fund in cash, producing only 2 per cent. per annum.

The deputy chief of the district police asks for the fire marshal’s department $21,800, an increase of $1,000 for traveling expenses and of $800 for additional stenographer; for the district police proper the chief asks $104,100, an increase of $500. Judge Dewey, for the bar examiners, asks $1,500, as last year; the State Board of Charity $352,500, an increase of $15,800.

Education.—The number of illiterates in the State reported by the census of 1890 was 134,645. In the percentage of children from ten to fourteen who were able to read and write Massachusetts stood ninth in the list of States and Territories, with 99.33 per cent. In 1890 it stood second, with 99.17 per cent.

Caroline Hazard succeeds Alice Freeman Palmer (deceased) as member of the State Board of Education.

The enrolment at Harvard for 1892-93 shows 334 instructors and 4,261 students. The proportion of instructors to students is greater than ever. There are 120 more students than in the year preceding, and 811 more than the usual number of persons enrolled for instruction in 1892 is 5,858. The Law School shows its usual steady growth in number as this year’s total being 640. The requirement of a college degree as a qualification for admission to the Medical School, the full force of which is felt this year, is the first time in the history of the institution a decrease of about 50, 445 men being registered. The Dental School shows an increase, with 112 students. The Graduate School has 316 students against 312 last year. The Theological School remains as before, and the Bussey Institute, or Agricultural School, registers an increase of one. The catalogue notes the opening of two museums—the geological section of the Museum and the new Germanic Museum.

Harvard has a new hospital, the Stillman Infirmary, opened in September. It is the gift of John Inman and its cost $29,990. It is nearly complete and modern as any hospital in the United States.

A gift of $250,000 from Mrs. Collis P. Huntington on March completes an aggregate of nearly $3,000,000 for the enlargement and endowment of the Harvard Medical School.

Funds have been collected for a building at Radcliffe to serve as a home for the use during college hours of the day-students who come from the various parts of the city and vicinity. The fund is at present about $125,000. The house is to be known as the Elizabeth Cary Agassiz Hall.

Tufts College celebrated its fiftieth anniversary in April. There were 903 men and women catalogued in 1901-92, and 141 degrees were conferred in course in June.

Simmons College, provided for in the will of John Simmons, a Boston merchant who died about forty years ago, leaving for the purpose property now amounting to more than $2,500,000, was opened in Boston in October with about 120 women as students. It has as yet no permanent home. Four lines of instruction are opened —school economy, secretarial, engineering, and scientific courses. For entrance a high-school education or its equivalent is required. The secretarial courses, which are now the most popular, give instruction in modern languages, history, stenography, and typewriting.

Banks.—At the beginning of the year there were 180 savings-banks in the State, with 1,593,640 depositors, and deposits aggregating $580,000,000. The Central National Bank of Boston closed its doors Nov. 14, the Comptroller of the Currency having ordered the Bank Examiner to take charge of its business. The closing is said to be due to depression and a lack of quick assets. No dishonesty was charged.

A final dividend was paid in December to the creditors of the Globe National Bank.

Building and Loan Associations.—There were of these 128 in the State, with 74,771 members and assets amounting to $25,674,207.

Industries and Products.—The value of farms in the State in 1890 was given as $182,646,704. Only 95 acres were devoted to wheat in 1890; dairying and market gardening have increased in late years, and also the cultivation of fruit.

The wooded area is estimated at 4,200 square miles.

The value of manufactured products in 1890 was about $1,033,000,000. The value of cotton manufactures, exclusive of cotton small wares, was $110,478,327. The capital invested was $155,761,163, and the number of looms 179,260. For cotton small wares the figures were: Capital, $528,235; value of products, $646,848; looms, 382.

In the value of woolen manufactures Massachusetts stood first among the States, with a value of $81,041,327.

In 1891 the number of textile mills added to those of the State was 4, with 134 looms and 30,000 spindles.

Peabody.—The Historical Society of Peabody has erected a monument to the memory of John Proctor, of that place, who was hanged as a witch on Gallows Hill, Salem, Aug. 19, 1692.

Proctor’s wife and children were prosecuted at the same time, but escaped death. The monument consists of a boulder bearing a tablet.

Boston.—The number of immigrants to this country through the port of Boston in the year ending July 1, 1902, was 41,462. The greatest number ever admitted in one year into this port was 52,418, in 1882. In the year ending July 1, 1891, the pork, and in a nearly complete and modern as any hospital in the United States.

In December the Dominion Line established direct service with ports on the Mediterranean and this is held accountable in large measure to the increase of immigration.

By the report of an expert on the municipal finances, it appears that the cost of administration in Boston is greater than that of any other city in this country. The total expenditures per capita exceed those of New York by 181 per cent., and exceed those of the average of 10 cities by 172 per cent. These 10 cities are Chicago, Philadelphia, St. Louis, Baltimore, Cleveland, Buffalo, Milwaukee, Providence, Indianapolis and Kansas City. Some reasons are given to show that a part, at least, of this disparity is rather apparent than real. For instance, Boston is unlike many other cities, does not tax the school property for street improvements and other public works wholly on abutting properties, but pays for them from the general tax list. Hence the cost of streets—$5,351, compared with 40 cents in the 10 cities named. Again, the cost of ferries and bridges is due to the cost of the graphical portion, secretarial, engineering, and scientific courses. For entrance a high-school education or its equivalent is required. The secretarial courses, which are now the most popular, give instruction in modern languages, history, stenography, and typewriting.
CEPTING THE "DISTRICT OPTION BILL" WAS VOTED UPON.
THE BILL, WHICH WAS REJECTED BY A VOTE OF 45,939 TO 35,671, WAS SUBJECT TO THIS REFERENDUM.
THEIR ADVICE AS TO WHETHER OR NOT THE DISTRICTS SHOULD DECIDE INDEPENDENTLY THE QUESTION OF LICENSE FOR THEIR DISTRICTS.

WAKEFIELD.—A SOLDIERS' MONUMENT, THE GIFT OF MRS. HARRIET N. FLINT, WAS DEDICATED AT WAKEFIELD IN JUNE.

RIVERS AND HARBOURS.—THE APPROPRIATIONS MADE BY CONGRESS THIS YEAR FOR WATERS OF THE STATE WERE AS FOLLOWS: FOR BEGINNING THE WORK ON THE GREAT NEW CHANNEL OF BOSTON HARBOR, $3,600,000; HARBOR AT FALL RIVER, $156,000; GLOUCESTER, $302,000; NEW BEDFORD, $37,700; HYANNIS AND NANTUCKET, $23,000; NEWBURYPORT, $30,000; ROCKPORT, $22,000; LYNN, $25,000; BEVERLY, $10,000; COHASSET, $21,000; WOODS HOLE, $20,000; PLYMOUTH AND PROVINCETOWN, $3,000; MANCHESTER, $3,000; AND PROVISIONALLY $200,000 FOR THE HARBOUR OF REFUGE AT SANDY BAY, CAPE ANN. ALSO $85,000 FOR IMPROVEMENTS AT THE MERRIMAC, MYSTIC MALDEN, WEYMOUTH, TOWN, AND TAUNTON RIVERS.

LAWSUITS.—SEVEN MEN WERE TRIED AT PLYMOUTH IN NOVEMBER ON A CHARGE OF "WHITECAPING," IN HAVING TARRIED, FEATHERED, AND HORSE-Whipped A MAN AT MARION FOR ALLEGED IMMORALITY. THE TRIAL, WHICH ATTRACTION Much Attention, Ended in a Verdict of Not Guilty.

LEGISLATIVE SESSION.—THE LEGISLATURE THIS YEAR WAS MADE UP OF 118 REPUBLICANS—33 IN THE SENATE, 105 IN THE HOUSE—79 DEMOCRATS, OF WHOM 7 WERE IN THE SENATE, AND 2 SOCIAL DEMOCRATS, BOTH IN THE HOUSE.

RUFUS A. SOULE WAS REELECTED PRESIDENT OF THE LEGISLATURE, AND J. MYERS WAS AGAIN CHOSEN SPEAKER OF THE HOUSE.

THE MESSAGE OF THE GOVERNOR RECOMMENDED MANY RADICAL CHANGES IN THE ADMINISTRATION OF STATE DEPARTMENTS, AND OTHERS, WHICH WERE FORMULATED IN BILLS AND MANY OF THEM PASSED. FOLLOWING IS A SUMMARY OF THE RECOMMENDATIONS:

1. THAT THE POWERS AND DUTIES OF THE FIRE MARSHAL BE TRANSFERRED TO THE STATE BOARD OF AGRICULTURE; THE POWERS AND DUTIES OF THE INSPECTOR OF GAS AND GAS MANUFACTURES TO THE BOARD OF GAS AND ELECTRIC LIGHT COMMISSIONERS; THE POWERS AND DUTIES OF THE INSPECTOR-GENERAL OF FISH TO THE COMMISSIONERS ON INLAND FISHERIES; AND THE POWERS AND DUTIES OF THE STATE ASSAYER OF LIQUORS TO THE STATE BOARD OF HEALTH; THE POWERS AND DUTIES OF THE PENSION AGENT TO BE TRANSFERRED TO THE COMMISSIONERS OF STATE AID; THAT THE NUMBER OF SUCH COMMISSIONERS BE REDUCED TO ONE; AND THAT AN APPEAL MAY BE TAKEN FROM HIS DECISION TO THE GOVERNOR AND COUNCIL; ALL THE STATE OFFICERS BE ACCOMMODATED IN THE STATE-HOUSE, AND NONE IN HIRED QUARTERS OUTSIDE; A BOARD OF PUBLICATION TO BE ESTABLISHED COMPOSED OF STATE OFFICIALS, TO BE APPOINTED BY THE GOVERNOR AND COUNCIL, TO SERVE WITHOUT ADDITIONAL COMPENSATION, TO SUPERVISE PUBLICATION OF PUBLIC DOCUMENTS, WHICH HAVE GROWN TOO LARGE; THE SALARIES OF THE PARK COMMISSIONERS BE PERMANENTLY FIXED INSTEAD OF NAMED EACH YEAR BY THE GOVERNOR AND COUNCIL. IT WAS RECOMMENDED THAT IF LEGISLATION IS TO BE PASSED AUTHORIZING THE CONSTRUCTION OF A NEW SUBWAY IN THE CITY OF BOSTON, THE ACT SHOULD CONTAIN THESE PROVISIONS: THE SUBWAY BE OWNED, CONTROLLED, AND PAID FOR BY THE CITY OF BOSTON; AND SECOND, THAT THE ACT NOT TAKE EFFECT UNTIL IT HAS BEEN ACCEPTED BY A MAJORITY OF THE VOTERS OF THE CITY, VOTING AT A SPECIAL, STATE, OR MUNICIPAL ELECTION. TO PREVENT THE EXCESSIVE AND WASTEFUL CONSUMPTION OF WATER IN THE METROPOLITAN DISTRICT AND OTHERS, THE CONSUMPTION OF WATER SHOULD BE THE BASIS FOR DETERMINING THE ASSESSMENT OF THE 8 BOSTON AND PROVINCETOWN TOWNS; THAT ALL STREET-RAILWAY LOCATIONS GRANTED BY LOCAL BOARDS BE SUBJECT TO THE APPROVAL OF THE RAILROAD COMMISSION; AND THAT AS THE GENERAL LAW OF 1890 FOR THE ABDUCTION OF UNDER-CROSSINGS HAS PRACTICALLY CEASED TO BE OPERATIVE, ITS FURTHER OPERATION SHOULD BE SECURED BY AN APPROPRIATION OF $5,000,000 TO BE EXPENDED AT THE RATE OF NOT MORE THAN $500,000 IN ANY ONE YEAR, UNDER THE DIRECTION OF THE RAILROAD COMMISSIONERS.

AN INCIDENT OF THE SESSION WAS THE PROTEST OF THE TWO SOCIALISTS IN THE HOUSE AGAINST THE PROPOSAL TO EXTEND THE INVITATION OF THE LEGISLATURE TO PRINCE HENRY OF PRUSSIA TO MEET THE GENERAL COURT IN JOINT CONVENTION ON THE OCCASION OF HIS FORMAL RETURN OF THE GOVERNOR'S CALL AT THE STATE-HOUSE ON THE 6TH OF MARCH, WHICH WAS ADOPTED IN THE SENATE BY A RISING VOTE WITHOUT DISSENT.

DELEGATES FROM VARIOUS LABOR ORGANIZATIONS, ESTIMATED TO BE ABOUT 700 STRONG, APPEARED BEFORE THE COMMITTEE ON CONSTITUTIONAL AMENDMENTS TO SUPPORT A PETITION THAT AMENDMENTS TO THE CONSTITUTION MAY BE SUBMITTED TO THE VOTERS OF THE COMMONWEALTH UPON PETITION OF 50,000 LEGAL VOTERS.


THE GOVERNOR WAS DIRECTED TO APPOINT A COMMITTEE OF THREE PERSONS TO EXAMINE AND CONSIDER THE STATE LAWS IN RELATION TO THE FORMATION, TAXATION, AND CONDUCT OF ALL CORPORATIONS, EXCEPT THOSE OF THE COMMONWEALTH AND CORPORATIONS MORE ADVANTAGEOUS TO IT AND TO THE PUBLIC INTEREST.

AN ACT CALLING FOR THE APPOINTMENT OF A COMMITTEE TO INVESTIGATE THE CONDITIONS AND CONDUCT OF THE PUBLIC SCHOOLS PROVIDES THAT ITS MEMBERS...
shall be taken from those already in the public service, and that no additional compensation shall be given.

A State board of publication was created in accordance with the recommendation of the message. The Cattle Commission was abolished, and Austin Peters, for several years its chairman, was appointed chief of the Cattle Bureau of the State Board of Agriculture.

In accordance with the suggestions of the message, the committee recommended these other changes: That the offices of pension agent and State-aid agent to be merged in the new office of State Aid Commissioner; that the office of State fire marshal be abolished and its duties given to a division of the State police; that the office of inspector-general of fish be abolished; and that of the inspector of gas-meters be abolished and its duties given to the Gas Commissioners.

A bill respecting banks provided that after July 1, 1904, no incorporated savings-banks shall occupy the same office or offices with a national bank, or any office directly connected by doors or other openings in partitions with the offices occupied by any national bank or other banks of discount. After the same date no president, vice-president, or treasurer of a savings-bank shall hold similar offices in a national bank or any similar institution.

Other enactments were: Making vaccination compulsory; regulating the speed of automobiles and prescribing for their management, so as to prevent accidents; providing that elevators running more than 100 feet a minute must be in charge of persons eighteen years of age or over, and other elevators must be in charge of persons sixteen years of age or over; providing that a married woman under twenty-one years of age may convey lands as if she were of age; providing that the succession tax shall be assessed on the value at the time the right of possession falls; and the value of existing life estates and estates for years is to be deducted; making it "unlawful for any person to advertise in a newspaper circulated in this Commonwealth, or by any other means, to perform or to procure the performance of the marriage ceremony"; authorizing cities and towns to appropriate money for celebrations of greeting to returning sons and daughters and other invited guests, and for addresses and ceremonies of historical interest.

Provision was made for a memorial statue of George Washington on the State House grounds.

In accordance with an act providing for three additional judges for the Superior Court, the Governor appointed Charles A. De Courcy, Robert O. Harris, and Lemuel L. Holmes. William C. Wait was appointed to fill the vacancy caused by the death of Justice John Hopkins.

The Governor vetoed a bill for nearly $35,000 for launching river in Harwich, as extravagant and wasteful.

Among the bills defeated was one for abolishing capital punishment, and one for preference of Spanish War veterans.

**Requisition for a Criminal.**—It was reported in August that the Governor had refused to honor a requisition of the Governor of North Carolina for a negro who was under indictment for arson in that State. It was true that the negroes were made against delivering up the negro on the ground that he would be lynched; that though the Governor of North Carolina had promised him protection the fact that two negroes had been lynched during his administration, when he had made vigorous attempts to stop the crime, showed that there was no certainty that he would be able to afford protection. A hearing of the protests was held before the Attorney-General; in the end, the requisition was honored.

Political.—There were 5 tickets in the field for the State election this year—Republicans, Democratic, Socialist, Socialist-Labor, and Prohibition.

The Democrats met in convention at Boston, Sept. 17. Following is the ticket named: For Governor, William A. Gaston; Lieutenant-Governor, John C. Crosby; Secretary of State, William B. Stone; Treasurer, Thomas C. Thatcher; Auditor, J. L. Challifoux; Attorney-General, John J. Flaherty. Some changes were made in the ticket later.

The nominations and the platform, which was adopted after they were made, were a triumph for that part of the party opposed to the Kansas City platform and to Mr. Bryan. There was a minority report from the Committee on stump- ing, offering a platform, which was read by George F. Williams, approving the Kansas City platform and reaffirming the principles advocated by the platform in the North Dakota and the Maine campaigns. The majority report, which was adopted, made no reference to these. It declared that the supremacy of the State over its corporate creatures, the trusts, must be asserted and maintained; that tariff duties should be reduced to a reasonable revenue basis; and that duties on raw materials, particularly on coal, iron ore, wool, and hides, should be reduced; that the reciprocity policy and demands reciprocity with Canada; demands the repeal of the tariff duties upon articles whose production is controlled by trusts; condemns the coal operators for refusal to submit differences with employees to arbitration; denounces the Republican Congress for failure to give tariff concessions to Cuba; opposes all forms of Government subsidies, whether on land or on sea; reaffirms opposition to colonial imperialism; and declares that the State, in connection with the city of Boston, should join in the work of harbor improvements.

In Boston, Oct. 3, the Republicans named the following candidates: For Governor, John L. Bates; Lieutenant-Governor, Curtis Guild, Jr.; Secretary of the Commonwealth, William M. Olin; Treasurer and Receiver-General, E. S. Bradford; Auditor of Accounts, Henry E. Turner; Attorney-General, Herbert Parker.

The platform approves the gold standard, and says of trusts: "These combinations of labor and capital, by whatever name they are called, are the natural results of modern economic development and are entitled to the due protection of the law so long as they are innocent and law-abiding. Publicity, honest accounting, issuing stock only for its true value, the prohibition of improper devices to break down competition and severe penalties for corrupt interference, combined with legislation by the use of money or other employment will protect the public against injury from large combinations of capital." The Democratic plan of free trade in the products made by trusts is opposed as meaning the greatest possible injury to all the competitors of trusts. The anthracite-coal strike is deplorable, but it is declared not to be a political question and should not be used as such. President Roosevelt's efforts toward ending the strike are heartily approved. The platform concludes with a commendation of Gov. Crane's administration.

The candidate for Governor of the Socialists was John C. Chase; of the Socialist-Labor party.
UNITED STATES OF AMERICA (MICHIGAN)

Michael T. Berry; of the Prohibitionists, William H. Partridge. The platform of the Socialist-Labor party denounced the capitalist class and declared that the Republican and Democratic parties are the friends of the capitalist class, while the Socialist-Democrats are the 'stool-pigeons of both.'

The election was held Nov. 2, and resulted in the success of the Republican ticket. The vote for Governor was: Bates, Republican, 196,276; Gaston, Democrat, 159,156; Chase, Socialist, 33,629; Berry, Socialist-Labor, 6,078; Partridge, Prohibitionist, 2,538.

The Executive Council consists of the following members from the 8 districts of the State: David F. Slade, Arthur A. Maxwel1, Edwin R. Hoag, Jeremiah J. McNamara, David I. Robinson, Walter S. Watson, Arthur H. Lowe, Richard W. Irwin.

Republicans were chosen to Congress in all but 4 of the 14 districts; but notice of contest has been served by the Republican candidate in the Ninth District, in Boston. The surprise of the election was the large Socialist vote which was only a trifle over 210 per cent. over that of 1901. In Haverhill and Brockton the party was especially strong. The two Representatives in the last Legislature, from Rockwell and Rockland, were reelected, and another Socialist was added by Brockton.

MICHIGAN, a Western State, admitted to the Union Jan. 26, 1837; area, 58,951 square miles; population, according to the last decennial census since admission, was 212,267 in 1840; 397,654 in 1850; 749,113 in 1860; 1,118,059 in 1870; 1,656,837 in 1880; 2,062,886 in 1890; and 2,429,982 in 1900.

Government.—The following were the State officers in 1902: Governor, Aaron T. Bliss; Lieutenant-Governor, Orrin W. Robinson; Secretary of State, Fred M. Warner; Treasurer, Daniel McCoy; Auditor, Perry F. Powers; Attorney-General, Horace M. Oren; Superintendent of Public Instruction, Deles Fall; Commissioner of the State Land Office, E. A. Wildes; Adjutant-General, George H. Brown; Labor Commissioner, Scott Griswold; Bank Commissioner, George L. Maltz; Insurance Commissioner, James V. Berry; Railroad Commissioner, Chauncey S. Pomeroy; State Commissioner, James C. McClaughlin, A. F. Freeman, William T. Dust, Ira T. Sayre, Graham Pope; Coal-Mine Inspector, Charles Atwood; Game Warden, Grant M. Morse; Secretary of the Board of Charities, L. C. Storrs; Fish Commissioner, Horace W. Davis; Chief Justice of the Supreme Court, Frank A. Hooker; Associate Justices, Joseph B. Moore, Claudius B. Grant, Robert M. Montgomery, and Charles D. Long, who died June 27; his successor is William L. Carpenter; Clerk, Charles C. Hopkins. All are Republicans.

The term of the State officers is two years. They are elected in November of the even numbered years. The Legislature, consisting of 32 Senators and 100 Representatives, meets biennially in January of the odd numbered years.

Finances.—By the Auditor's report submitted in December it is shown that the balance at the beginning of the year was $2,827,553.84; the receipts from the State Treasury from all sources in the year ending June 30 were $7,079,429.21; the disbursements for all purposes, $6,233,141.91; the balance at the close of the fiscal year, $3,435,811.14.

The transactions of the tax division were unusually satisfactory as regards the collection of delinquent revenues. The amount paid into the division was $892,555.54, against $417,556.61 the previous year. The local taxes collected amount to $440,534.80, against $272,900.02 the year previous.

A total of $1,892,347.71 in specific taxes was collected from companies, the railroads paying $1,430,434.82.

The receipts were larger than usual on account of the money received from the General Government on account of the Spanish War and other claims. The Secretary of State received fees sufficient to pay the entire expenses of that department. A total of $84,915.42 was received, of which sum $55,933.61 was franchise fees, $3,688.65 for recording and filing articles, and $1,696.43 for charges against building and loan associations.

The Insurance Department received for the year ending June 30, 1902, $323,027.01.

The Land Commissioner's office received for the year ending June 30, 1902, $105,251.74.

The outstanding bonded indebtedness on account of Spanish-American War bonds is $416,300, and the amount of money in the State treasury available for the payment of these bonds in $473,311.92.

The total tax levy for 1902 was fixed at $2,669,943.65—more than $1,000,000 less than that of the year next preceding. The various purposes for which the tax is levied is distributed to each are as follows: University, $307,525; Agricultural College, $100,000; State Normal College, $124,491.40; Central Normal School, $45,000; Northern Normal School, $27,630; Michigan College of Mines, $97,875; State Library, $12,000; Soldiers' Home, $124,000; Home for the Feebleminded and Epileptic, $85,000; State Public School, $32,500; School for the Deaf, $30,500; School for the Blind, $30,700; Jackson Prison, $4,000; Industrial School for Boys, $72,750; Industrial Home for Girls, $59,750; State Fish Commission, $31,000; compiling records of Adjutant General's office, $1,250; dairy and food department, $25,000; Michigan Dairymen's Association, $300; Library Commission, $800; National Guard, $139,849.10; Navy; Food Commission, W. E. Snow; Salt Inspector, F. P. Dunwell; Commissioner of Mineral Statistics, T. A. Hanning; President of the State Board of Health, Fred A. Vought; Commissioner, James C. McClaughlin, A. F. Freeman, William T. Dust, Ira T. Sayre, Graham Pope; Coal-Mine Inspector, Charles Atwood; Game Warden, Grant M. Morse; Secretary of the Board of Charities, L. C. Storrs; Fish Commissioner, Horace W. Davis; Chief Justice of the Supreme Court, Frank A. Hooker; Associate Justices, Joseph B. Moore, Claudius B. Grant, Robert M. Montgomery, and Charles D. Long, who died June 27; his successor is William L. Carpenter; Clerk, Charles C. Hopkins. All are Republicans.

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twenty-seven months. "Previous to Sept. 23, 1899, Michigan was the dumping-ground for so-called graduates of fake and irreputable colleges, over 200 of whom had registered in one county of this State alone. Not only has this law entirely cut off the undesirable future supply, but has caused this class of practitioners already in the State to either abandon the practise or properly qualify themselves.

The State Prison.—The Board of Control of Jackson Prison established a rule in April prohibiting corporal punishment in the institution.

One of the amendments adopted at the November election was to empower the Legislature to enact a law for indeterminate sentences, a law of 1889 to that effect having been found to be unworkable.

Railroads.—The total main-line mileage in the State is 8,199.43, an increase of 253.49 over that of the previous year. The commissioner says the statistics of earnings indicate an increase of about 9 per cent. over those of last year.

In 1901 there were 162 persons killed and 633 injured. This is the greatest number in the history of the single exception of 1900, when 254 were killed. Of the number killed last year, 28 were passengers, being 1 passenger for every 525,406 passengers carried.

A total of 82 companies reported to the Department for the year. Of these 62 were regular operating companies. All were in first-class financial condition. In addition to paying interest on indebtedness, companies declared dividends.

Under the repeal act of the last Legislature the Michigan Central was required to reduce its passenger fares to 2 cents a mile. The earnings of the passenger-trains on such line being $2,000 more than the road operated. It was found that the passenger Income of the Detroit, Grand Haven, and Milwaukee was in excess of $2,000 a mile of road operated, and a case is pending in the Wayne Circuit Court to require this company to reduce its passenger rates to 2 cents a mile.

Articles of association were filed by 15 railroad companies.

A law of the last Legislature changed the system of taxation. Heretofore the railroads have paid a certain percentage on their gross earnings, but hereafter the tax will be computed upon the value of their property, like ordinary taxpayers.

The State Tax Commission fixed the valuation of the roads, making a total of about $209,212, 006, which it computed further increased by $21,550,312.2. The amount of tax assessed against the railroads this year under this system is $1,482,906.84.

Banks.—An abstract of reports of the 213 State and 85 national banks and 3 trust companies. Feb. 23, shows increases over the report made Dec. 10, 1901, as follows: Loans, discounts, bonds, mortgages, and other loans, $3,307,066.78; commercial deposits in State banks, $155,337,62; commercial deposits in national banks, $154,108.30; savings deposits in State banks, $2,093, 132.92; total increase in deposits, $3,194,277.44.

The City Savings-Bank, of Detroit, failed in February. The vice-president was tried on a charge of fraudulently securing from the bank more than $1,000,000, and was convicted and sentenced to fifteen years' hard labor in prison.

Building and Loan Associations.—The number of these in the State is 63; they have a membership of 31,757, and a capital valued at $9,266,764. The Attorney-General is endeavoring to exclude from the State certain so-called home-purchasing associations believed to be fraudulent.

Insurance.—A report of the financial condition and business of companies of other States doing business in Michigan in 1901 shows the following totals: Paid-in capital, $64,082,475; admitted assets, $312,935,468.39; liabilities, $1,835,980,946.51; divisible surplus, $96,770,816.65; taxes paid in Michigan, $161,041.27; fire risks written, $427,572,100; fire premiums received, $3,367,451; fire losses paid, $3,159,304; fire losses incurred, $2,991,091; marine risks written, $2,130,082; marine premiums received, $238,077; marine losses paid, $126,014; marine losses incurred, $1,465,152. The per cent. of losses to premiums received was 68 against 62 for the years 1899 and 1900.

The commissioner says: "The fact that during the past eighteen months 58 companies, representing an aggregate capital of $3,000,000, have retired from Michigan, coupled with the further fact that their places have not been taken by other companies, and that the companies which continue to do business in the State have reduced their lines fully 30 per cent., presents the anomaly in insurance economics of a constantly increasing demand with just as constantly decreasing supply, of the single commodity."

The commissioner urges amendments to the insurance laws that will relieve double taxation on premiums in case of reinsurance. The number of companies authorized to do business in the State is 146, there being 2 Michigan companies, 26 of foreign countries, and 108 of other States.

Industries and Products.—The farms of the State on June 1, 1900, numbered 206,261, and were valued at $832,317.10, of which amount 70 per cent. represents the value of buildings, and 73 per cent. the value of the land and improvements other than buildings.

According to statistics compiled by the Department of Agriculture, Michigan is now the leading State in sugar-beet acreage, having a total area this year of 68,000 acres, an increase of 79 per cent. over last year. Statistics of the Sugar Manufacturers' Association give the following items: The total daily capacity of the 13 Michigan factories is 6,600 tons of beets; the total investment is $7,700,000; 64,000 tons of beets were harvested; and the crop weighed 597,600 tons. The average value of the ton was $3.20, making the amount paid to farmers $3,107,350. The average cost of a ton was $154.60, the net profit per ton was $6.30. Freight must be deducted from this profit. The average output of sugar per ton of beets at the Michigan factories is 210 pounds; this valuation is 210 pounds.

In the census year there were 286 butter and cheese factories and creameries in the State, of which 146 were cheese. Michigan stands fifth in cheese production, the value having more than doubled since 1890. In the year 18,578,809 pounds of condensed milk was produced, nearly four times as much as in any other State. The value of all products of the 299 factories was $3,918,963.

The figures for the manufactures of the State in 1900 are: Number of establishments, 16,906; capital, $264,047,333, an increase of 5 per cent.; value of products, $336,087,412, an increase of 6 per cent. There were 106,356 wage-earners, 866,458,494 of wages, $25,401,813 of miscellaneous expenses, and $100,133,711 was the cost of materials used.

Michigan, which was the first among the States in the production of iron ore, is now second to Minnesota. The total production in 1901 was 5,294,587 tons, and in 1900 it was 5,044,500 tons, showing a marked increase. The total production of 1901 was 5,104,530 short tons, valued at $4,144,756. The State is credited with producing gold of the value of $30,000 and $48,000 worth of silver.
The wooded area of the State is 38,000 square miles. A forest reserve has been established in Rosecommon and Crawford Counties, at the head waters of the principal rivers of the lower peninsula.

**Legal Decisions.**—The act of the last Legislature increasing the salaries of the State Treasurer, Land Commissioner, and Secretary of State, was declared invalid by the Supreme Court in its denial of a mandamus to compel the Auditor to pay the increase.

The decision against the Illinois antitrust act virtually applies to that of Michigan.

**The Sault Canal.**—This was opened Oct. 25. Statistics of the work are given in brief as follows:

- Length of canal, 13,000 feet; time consumed in construction, four years; cost, $7,000,000.
- Power developed, 60,000 horse-power; average width of canal, 300 feet; width at bottom, 104 feet; width at top, 215 feet; width of intake, 950 feet; depth of water, 23 feet; fall, 20 feet; velocity of current, 41 miles per hour; volume of flow, per second, 30,000 cubic feet; number of turbines, 320; size of power-house, 1,300 by 125 feet.

From an account of the opening celebration the following is taken: "In the military and civic parade in the morning there were over 10,000 men, including the garrison employed in the Clergue works across the river. The afternoon industrial parade showed the various products of the Clergue works in all stages from raw material to finished articles. The farmers of Chippewa County were much in evidence, having in the parade 250 wagons loaded with the produce of their lands. The historical section showed the Soo in all sizes and conditions of transportation. The present population, clad in Prince Albert coats and silk hats. This canal is the greatest hydraulic power plant in the world. Starting in the lower arm of Lake Superior, it passes straight through the heart of the city, and by a magnificent true curve debouches into the St. Mary's river a mile below the rapids."

The American side of the river most of the power is to be devoted to two distinct lines of industry, calcium-carbide and alkali works.

By the invention of a distinguished scientist named Rhodin, a method has been devised for decomposing common salt by electrical current into chloride gas and caustic soda. The American works will employ about 2,000 men. Three hundred and fifty working men of different trades are employed in the plant, and many workers are added as the various departments of the works are completed. The operation of the works will be conducted on a large scale, and the annual output of chlorine will be consumed daily and transformed from a substance worth $2.50 a ton to products worth $25 a ton.

The storage-battery plant is the largest of its kind in the world. It has a capacity for the storage of 25,000 electrical horse-power.

**Political.**—The Republican State Convention, in Detroit, June 20, nominated Gov. Bliss for a second term. The other nominations were:

- Lieutenant-Governor, Alexander Maitland; Secretary of State, Fred M. Warner; State Treasurer, Daniel McCoy; Auditor-General, Perry F. Powers; Attorney-General, Charles A. Blair; Commissioner State Land Office, Edwin A. Wildy; Superintendent of Instruction, Delos A. Fall; Members State Board of Education, Patrick H. Kelley, L. L. Wright.

The platform commended the national administration, reaffirmed the principles of the party, and favored reform in primary elections. On the trust question it said: "We realize that large combinations of capital may be necessary, but we desire to express our condemnation of all conspiracies and combinations to restrict business, to create monopolies, to limit production, or control prices, and we favor such legislation as will effectually restrain and prevent all such abuses. We cordially approve and commend the efforts of President Roosevelt to enforce the law against illegal combinations in restraint of trade."

A special convention was held in Grand Rapids, Sept. 25, to nominate a candidate to succeed Judge Charles D. Long, of the Supreme Court, who died June 27. William L. Carpenter was nominated. The candidacy of Gen. Russell A. Alger to succeed the late Senator McMillan was approved, and he was appointed by the Governor "to serve until his successor is chosen by the Legislature."

The Democratic Convention met in Detroit, July 30. Following is the ticket: For Governor, George H. Durand; Lieutenant-Governor, John F. Bible; Secretary of State, John Donovan; State Treasurer, W. F. Davidson; Auditor-General, David A. Hammond; Land Commissioner, Arthur F. Watson; Attorney-General, W. F. McKnight; Superintendent Public Instruction, W. N. Ferris; Member State Board of Education, Charles F. Field; Justice of Supreme Court, Benjamin J. Brown.

Later, George H. Durand withdrew on account of failing health, and his brother, L. T. Durand, was chosen to take his place.

The resolutions adopted by the convention demanded the destruction of boshism in Michigan; favored primary election reform; election of the United States Senators by direct vote; adoption of the system called the initiative and referendum; equal taxation and equitable assessment; municipal ownership of all public utilities; and adequate compensation for Indian claims.

The convention also decreed "to make a strong effort to be made on the contemplated suit of the Michigan Central against the State on account of the repeal of the charter of the road."

Candidates were named by the Prohibitionist, Socialist, and Social-Labor parties also.

The Republican State ticket was successful throughout. The vote for Governor stood: Bliss, Republican, 211,281; Durand, Democrat, 174,077; Westernman, Prohibition, 11,328; Walter, Socialist, 4,871; Conlin, Social-Labor, 1,284. The other Republican candidates received larger pluralities, Judge Carpenter's being 76,104.

Republicans were chosen to Congress in all the districts except the 1st, where T. H. Pendleton, Democrat, was elected. The Legislature will stand on joint ballot 121 Republicans to 11 Democrats.

Two proposed constitutional amendments were submitted, one relative to the publishing of all the general laws of any session in a newspaper, abolishing the provision for payment; the other, empowering the Legislature to enact a law imposing indeterminate sentences as a punishment for crime, and to provide for the parole and return to prisons of persons imprisoned on such sentences. Both were carried, the former by a majority of 50,596, the latter by 68,087.

**MINNESOTA, a Western State, admitted to the Union May 11, 1858; area, 84,287 square miles. The population, according to each decennial census since admission, was 172,023 in 1860; 430,706 in 1870; 780,773 in 1880; 1,301,826 in 1890; and 1,751,394 in 1900. Capital, St. Paul.**

**Government.**—The following were the State officers in 1902, taking office the first Monday in January, 1901: Governor, Samuel R. Van Sant; Lieutenant-Governor, Lyndon A. Smith; Secretary of State, Peter E. Hanson; Auditor, Robert C. Dunn; Treasurer, Julius H. Block; Attorney...
General, Wallace B. Douglas; Commissioner of Insurance, Elmer H. Dearth; Adjutant-General, William A. Fay; Inspector, L. D. Marshall; Commissioner of Labor, John O'Donnell; Public Examiner, Sam T. Johnson; Chief Justice of the Supreme Court, Charles M. Stahl; Attorney-General, John A. Lovejoy, Calvin L. Brown, Charles L. Lewis; Clerk of the Supreme Court, Darius F. Reese; Railroad and Warehouse Commissioners, Ira B. Mills, Charles F. Staples, and Joseph G. Miller—all Republicans.

The Governor, Lieutenant-Governor, Secretary of State, Auditor, Treasurer, and Attorney-General are elected every two years. The Railroad Commissioners are elected for six years, but the present board, the first elected, was so arranged that one term expires biennially. The Insurance Commissioner, Adjutant-General, Labor Commissioner, and Grain Inspector are appointed by the Governor for two years; the Public Examiner for three years.

The judges of the Supreme and district courts are elected by the people for six years. The clerk of the Supreme Court is elected every four years. The other court officers are appointed by the judges, except the deputy clerk and his assistants, who are appointed by the clerk of the court. State officers are chosen in November of even years. The Legislature convenes in January of odd years, and the session is limited to ninety legislative days.

Finances.—For the fiscal year ending July 31, 1902, the receipts of the State treasury were $7,305,443.94, and the disbursements $7,292,850.12, leaving a balance of $2,212,583.06. The balance July 31, 1901, was $2,000,343.24.

The State debt was $1,068,000, having been reduced $140,000 during the year. It has since been reduced to $966,000 Dec. 31, 1902. The permanent school and university funds were respectively $14,316,388.00 and $1,334,035.55.

The principal classifications of the treasury receipts for the year were: Revenue fund, $4,501,045.46; permanent school fund, $1,217,219.13; general school fund, $1,237,388.45; general university fund, $375,775.08; the disbursements were school fund, $931,455,936.00; permanent school fund, $1,252,422.01; general school fund, $1,153,602.46; general university fund, $402,592.01. The amount of railroad taxes paid was $1,659,296.40. The total amount of taxes paid through the State Insurance Commissioner's office was $216,515.88.

Charities and Corrections.—The new board of Control, appointed by the Governor, and consisting of William L. Lee, S. W. Leavitt, and C. A. Morey, took charge of charitable and correctional institutions Aug. 1, 1901, and for the first fiscal year reduced the cost to the State $1,870,000. The population of these institutions Aug. 1, 1902, was: Insane, 3,792; distributed as follows: Anoka Asylum, 135; Hastings Asylum, 15; St. Peter's Hospital, 9; Nisswa, 1,457; Rochester Hospital, 1,121. The asylums are for chronic cases. School for the Deaf, 254; School for the Blind, 74; School for the Feeble-Minded, 817; State Public School, 248; State Training School, 526; State Reformatory, 192; State Prison, 553.

Lands.—The influx of settlers from the older and more crowded portions of the United States, which grew to large proportions in 1901, continued throughout 1902, and land values increased in a corresponding degree. The average value of State school lands paid was $76.75 per acre, as compared with $73.75 per acre in the year previous. The full amount permitted by law, 100,000 acres, was sold. Practically every acre of known mineral land in the State is now leased. Sales of bonds held by the State. Prospecting is continuing, and new areas are being added to the mineral values frequently. Some state pine still remains to be sold, and during the year $5,000,000 was allowed by the State. The stumpage averaged 85 per thousand feet. The permanent school fund, which is derived from the sale of State lands and the revenue from timber and mineral leases, amounted July 31, 1902, to $14,316,388.00, of which $8,289,230.65 was invested in the bonds of other States and of Minnesota school districts; $5,850,873.12 in outstanding land contracts; and $350,050.40 was paid out on account of school plant, and $6,062,750.00 in cash.

The permanent university fund amounted to $1,334,035.55 and the internal improvement fund to $2,816,996. A new fund derived from the sale of swamp lands allotted to the State institutions amounts to $288,905.

Products.—In the past year 36 new creameries have been established, making a total of 68. These made 63,756,450 pounds of butter out of 1,217,787,450 pounds of milk, produced by 382,356 cows. The butter output per cow was considerably increased over the year previous. The creameries paid to their 60,538 patrons $10,862,743.50 in cash, besides 3,988,791 pounds of butter. The total value of the butter product of the State is figured at $15,808,887.76. There was shipped out of the State 42,525,000 pounds of butter, practically two-thirds of the product.

The chemists of the Dairy and Food Commission made more than 10,000 analyses of food samples, of which about one-fourth were found to be below the standard required by law.

The ore product of the Missabe and Vermilion iron ranges had a phenomenal increase, the total shipments being 13,401,191 tons, against 11,786,983 tons the year previous.

While the wheat acreage decreased from 4,250,000 acres in 1901 to 5,960,000 acres in 1902, the average yield was increased from 12.5 to 13.7 bushels per acre, making the crop of that staple 82,150,000 bushels, as against 78,000,000 in 1901. The decrease in wheat acreage was more than made up by the increase in the amount of wheat grown as to that crop are not systematically gathered.

Education.—There are in the State 141 high schools, and each receives special State aid of $1,000. The total expenditure paid during the year ending July 31, 1902, was $15,410; the number of graduates was 1,877. There are 119 graded schools of not less than four departments, employing 607 teachers. In addition to these there are 92 graded schools of either two or three grades, employing 308 teachers.

In the University of Minnesota there are 3,729 students, including 1,044 women. The students are distributed as follows: College of science, literature, and the arts, 1,178; engineering and mechanical arts, 345; school of mines, 109; agricultural department; 504; medical college, including pharmacy and dentistry, 531; summer school, 237; graduate students, 176.

The annual resources for current expenses are $410,000; invested funds, $1,334,035.55.

Labor.—In the last year this department has been pursuing, in addition to its factory inspection, a special inquiry into the condition of women wage-workers, and has sought to determine the causes underlying the aversion of women for housework. This inquiry has included an inquiry of the employers, as well as of the employees, and while it has not been unusually fruitful, is believed to promise some success.
Legislative Session.—The Legislature convened Feb. 4, 1902, in special session, and adjourned March 11, being in session twenty-nine days. The principal business before it was the new code of tax laws, prepared by a commission appointed at the preceding session. The new code failed of passage.

The Republican State Convention was held in St. Paul, July 1. The important planks of the platform were these:

- Approving the administration of President Roosevelt, including the administration of civil government in the Philippine Islands.
- Adhering to the policy of protection.
- Favoring the wider extension of markets for the sale of all American products.
- Favoring reciprocity with Cuba.
- Favoring legislation, national and State, to prevent combinations which stifle competition, limit production, control prices, or unduly increase profits or values.
- Favoring the most stringent legislation for the suppression of anarchy.

Our faith in the gold standard has been amply justified by the wonderful strides of American industry and commerce.

The following ticket was nominated: For Governor, Leonidas F. Stewart; Secretary of State, Peter E. Hanson; Auditor, Samuel G. Iverson; Treasurer, Julius H. Block; Attorney-General, Wallace B. Douglas; Attorney General, C. A. Pidgeon; Railroad and Warehouse Commissioner, Charles F. Staples.

The Democratic State Convention was held in Minneapolis, June 29. The principal planks in the platform were:

- Demanding independence for the Philippines.
- For the enforcement of the laws against trusts and the revoking of the tariff benefits they enjoy.
- Favoring the income tax and postal savings-banks.
- Opposing government by injunction.
- Favoring municipal ownership of public-service corporations.
- Favoring the election of Senators by direct vote.
- Favoring the eight-hour work day.

The following ticket was nominated: For Governor, Leonard A. Rosing; Lieutenant-Governor, Robert A. Smith; Secretary of State, Spurgeon C. Colvin; Attorney-General, Frank D. Larrabee; Treasurer, Joseph L. Meyers (Meyers declined, and the State Central Committee substituted H. L. Shirley); Clerk of the Supreme Court, George P. Jones; Railroad and Warehouse Commissioner, J. M. Bowler.

The Republican ticket was elected, the vote on Governor being: Van Sant, Republican, 155,849; Rosing, Democrat, 99,302; Scanlon, Prohibition, 5,765; Meighen, People's party, 4,821; Van Lear, Socialist Labor, 2,570; Nash, Socialist, 2,251; Van Sant's plurality, 56,487.

Mississippi, a Southern State, admitted to the Union Dec. 10, 1817; area, 46,810 square miles. The population, according to each decennial census since admission, was 75,448 in 1820; 130,621 in 1830; 335,851 in 1840; 600,526 in 1850; 791,305 in 1860; 827,922 in 1870; 1,131,507 in 1880; 1,289,600 in 1890; and 1,551,270 in 1900. Capital, Jackson.

The following were the State officers in 1902: Governor, A. H. Longino; Lieutenant-Governor, J. T. Harrison; Secretary of State, Joseph W. Power; Treasurer, George W. Carville; Auditor, W. Q. Cole; Superintendent of Education, H. L. Whitfield; Attorney-General, Monroe McClurg; Adjutant-General, William Henry; Land Commissioner, E. H. Nall; Revenue Agent, Wirt Adams; Railroad Commissioner, J. D. McNiss, J. C. Kincaannon, A. Q. May; Chief Justice of the Supreme Court, Albert H. Whitfield; Associate Justices, S. H. Terral, S. S. Caboon; Clerk, Edward W. Brown. All are Democrats.

The term of the State officers is four years; they are chosen in November of the years next preceding those of the presidential elections. The Legislature meets biennially the first Tuesday after the first Monday in January of the even-numbered years. Every second session is a special session, the regular sessions coming quadrennially. The length of a special session is limited to thirty days unless it is extended by the Governor; and only appropriation and revenue bills may be considered unless the Governor introduces other subjects by message.

Finances.—Following is an unofficial statement of the condition of the funds in December. Indications point to the fact that on Jan. 1, 1903, there will be $60,000 in cash in the State treasury, after paying all outstanding warrants and all expenses to that date. This will be accomplished, according to Auditor Cole, without any further receipts nor any expenditures, where, and without issuing a dollar of the million dollars' worth of bonds authorized for the construction of the new State-House. By Feb. 1 $750,000 will be received from State taxes, ample to meet the common-school funds and other appropriations to be paid to that date. In the year $100,996.50 was paid to 6,680 Confederate pensioners. The present bonded debt of the State is given as $2,957,026.

Valuations.—The assessed value of realty this year is $145,719,108, an increase over 1901 of $14,402,287; the personal property valuation is $64,847,907, an increase of $1,411,421; that of railroads, $30,922,121, an increase of $2,326,063. The total, $240,598,259, shows an increase of $18,141,601. The increase for three years amounts to $527,130,217. The number of polls assessed in 1902 was 300,736, an increase of 8,357. "Of the 75 counties of the State, 67 show an increase in valuations, while 18 show a decrease. The most notable increases are from the southeastern part of the State, formerly called 'cow counties,' where the railroads have done away with the 'wagner,' by sawmills, new towns, and other enterprises."

The Treasurer's Office.—The shortage in the treasury (see Annual Cyclopaedia, for 1901, p. 722) was made the subject of a legislative investigation, and following is a part of the report: "We find that $100,000 of the $107,621,44 that was missing at the time the Governor made his count, in August, 1901, of the money in the State treasury had been loaned in Memphis at the rate of 3 per cent. per annum; said interest, when collected, was to be divided equally among Messrs. F. T. Raiford, Phil A. Rush, and John Armstead. This $100,000 so loaned had been brought from Memphis before the counting of the money in the State treasury by the Governor on two occasions, one time by John Armstead and the last by F. T. Raiford. We failed to find any trace as to the whereabouts of the $7,621,44 at the time the Governor and Auditor Cole counted the money in the treasury in August, 1901, and from the evidence that there were no bonds or security in the State treasury to cover the missing $107,621,44 at the time of the count made by the Governor; nor was there any evidence as to the whereabouts of said money at that time. We find
that the banks of Jackson, collecting checks and drafts and handling money for the State treasury, placed bonds, collateral, or securities with said banks covering all amounts so obtained from him."  

Indictments were found against the men named. The prosecution of Rush resulted in a mistrial. He will be tried again in 1903, when other trials also are to occur.

Mr. Carlisle, who was appointed after Mr. Stowers resigned, gave up the office Nov. 1, on the ground that it was too great a responsibility to have the care of such an amount in the treasury.

Education.—By the census report of 1900 there were in the State 501,461 illiterates. In the percentage of children from ten to fourteen years old who are able to read and write Mississippi stands forty-fifth, with 77.62 per cent. The school enumeration shows 530,439 this year, an increase for the biennial period of 40,427. The school term has been lengthened in most of the counties, only 5 at the beginning of this year having but the old four-months' term, others having from five to eight. Ninety towns in the State have organized into separate school districts with terms of nine months.

The enrolment at the Agricultural College for the ending year, 1905, shows the receipts of the Yanoo and Mississippi for the year ending June 30 were $6,658.55, an increase of 7.5 per cent.; the net receipts were $1,930,717.14, a decrease of 6.77 per cent.

The business of the Louisville and Nashville in the State for the first quarter showed receipts from all sources, $228,294.97; operating expenses, $123,806.14; net revenue after paying taxes, interest, etc., $55,893.12. This is an increase of $34,138.08 over last year.

Hattiesburg is now reached by the Mobile, Jackson and Kansas City road. This part of the State is developing rapidly.

Insurance.—There are 87 insurance companies, 8 guarantee companies, 12 accident companies, and about 60 fraternal orders doing business in the State.

The new insurance law passed at the last session of the Legislature requires more extensive reports from the companies than heretofore. A separate insurance department was created, and powers of the commissioner were enlarged. The present law affords greater security, providing that only capitalized companies may write fire insurance. The system of taxation is changed, the law now requiring a percentage tax on actual business.

A strong effort was made to have an extra session of the Legislature called in order to repeal the valued-policy clause of the law. The Governor even received an offer from Vicksburg to pay the expenses of the extra session. But he declined to call the session, as, from answers received to a circular letter to the legislators, he found that the law would not be repealed.

On the other hand, the insurance companies were emphatic against writing blanket policies on cotton if the Legislature should amend the law only in its application to that staple; demanding the repeal of the entire law. But in September the Mississippi Fire Association decided to insure cotton under the old blanket policy. The new method adopted by the companies in the spring was to insure cotton in bales only, by marks and numbers.

Industries and Products.—According to the census report, 61.5 per cent. of the land area of the State is included in farms. There were of these 220,803, valued at $152,907,000. Of this value, 24 per cent. represents the buildings and 76 per cent. discounts are $4,632,556.68; United States bonds to secure taxation, $1,012,500; United States bonds to secure United States deposits, $250,000; money in reserve, gold coin, $5,305.50; gold treasury certificates, $25,650; silver dollars, $99.29; silver treasury certificates, $29,117; silver fractional currency, $39,119.55; legal-tender notes, $374,128; capital stock paid in, $75,549.00; unappropriated surplus, $549,000; undivided profits, $3,552,489.20; average reserve held, 20.09 per cent.

The Auditor in his report of the State banks in July, says that this is the best showing made during his term. The number of banks reporting on July 15, 1901, was 117, compared with 129 for July 5, 1902. These institutions have capital stock ranging from $25,000 to $100,000. The total resources of the 129 banks is $26,544,946.33, compared with $23,948,412.12 for the 117 banks. Loans and discounts on personal securities amounted to $17,386,114.30. Under the heading of liabilities, capital paid in is placed at $3,465,080.33, an increase of $577,968.10 and an average of about $44,000 for each of the 12 new banks established.

Railroads.—The mileage of roads in the State was increased by 127 in 1902; in 1901, the increase was 289. The real estate receipts of the Yazoo and Mississippi for the year ending June 30 were $46,800.50, an increase of 3.6 per cent.; the net receipts were $1,930,714.14, a decrease of 6.79 per cent.

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ings. The total value of farm property is $204,-
221.027. Of the farms 41.7 per cent. were operated
by white farmers and 58.3 by colored. Of the
white farmers, 60.2 per cent. owned all or a part
of the farms they operated. The colored farmers
owned 16.3 of the farms they cultivated.

The cotton-crop in 1892 was 1,375,000 bales,
against 850,000 in 1901. The consumption in mills
of the State was 16,203,653 pounds of lint cotton.
There were 16 mills, with 3,821 looms and 127,772
spindles. Two new textile-mills, with 160 looms
and 10,120 spindles, were constructed in 1901. In
the census year there were but 2,464 looms. The
growth of the cottonseed-oil business is very rapid.
In the first half of the year, 19 new mills were
started, with $900,000 capital. There is a great
demand for Mississippi turpentine, and distilling
plants have been running day and night.

The forest area of the State is estimated at 32,-
300 square miles. The aggregate of capital stock of all concerns
incorporated in the fiscal year was $9,133,000.32,
subdivided as follows: Lumber companies, $1,127,-
000; oil and gas companies, $1,995,000.32; man-
ufactures, $1,686,000.22; oil-mills, $1,995,000.07; rail-
roads, of which 3 have already organized, $85,000;
3 cotton factories, $310,000; 150 miscellaneous cor-
porations, $2,882,000.

Lawlessness.—Lynchings have been reported this
year in Attala County and at Walnut Grove, Clay-
lon, Corinth, Columbus, Summit, and Dar-
ling. One negro woman was shot and two negroes
burned. The one burned at Corinth, Sept. 28, con-
fessed to an atrocious murder. The one burned at
Darling had, in company with 2 white men, mur-
dered a negro man whom they robbed. The one
burned at Clayton in July had assaulted a young lady.
A policeman attempting to arrest a negro running an unlicensed saloon at Summit in
November was shot by the negro, who escaped. But
2 negroes accused of assisting the escape were
captured and lynched. The negro lynched at Wal-
nut Grove had committed an assault on a white
woman, and the one at Columbus had attempted one.
Two negroes were lynched in Attala County in
September, accused of promoting dissension be-
tween the races.

Terrorist troubles have arisen this year in
Amite, Franklin, Pike, and Lincoln Counties.
The blacks have been terrorized by threats and
notices to give up their employment in mills or to
leave the mill-owner whom they robbed. The one
burned in Clayton was a negro who fled from a
proclamation, offering a reward for the arrest
and conviction of each and every one guilty of the
crime.

A race riot was reported from Tupelo in August,
with 6 persons seriously shot and others injured.

Indianola.—Trouble arose in this place near
the close of the year over the resignation, on com-
pulsion, of the negro postmistress, who has con-
ducted the office satisfactorily for several years,
but was objected to on account of her color. Her
resignation was not accepted, and the office was
ordered reappraised.

Legislative Session.—The Legislature met for
its special session Jan. 7. The limit of this ses-
sion is thirty days, unless the time is extended by
the Governor, as it was twice this year. Adjourn-
ment took place March 5. Adoniram J. Russell
was Speaker of the House.

The number of Senate bills passed and approved
was 120; House bills and resolutions, 103.

Three constitutional amendments were proposed
and submitted to vote in November. They were:
1. Authorizing a town or county, upon the vote of
a majority of its qualified electors who pay
taxes on $100 or more of property, to aid, by do-
nation or subscription, in building of new rail-
routes; 2, making the required vote to pass a
constitutional amendment a majority of those
voting, authorizing the Legislature to insert in the
Constitution an amendment which has been adopt-
ded, at its next succeeding session, and giving the
Legislature the power to determine finally wheth-
er an amendment has been adopted; 3, pro-
viding for regular biennial sessions of the Legisla-
ture, thus doing away with the present rule, which
makes every second session a special one, and en-
abling the Legislature to take up any subject, in-
stead of, as now, only those of revenue and appro-
priation and those introduced by the Governor.

The tax levy for the next two years was fixed
at 8 mills.

As the State is entitled, by the census, to 1
more Representative in Congress, the 7 districts
were redivided into 8. An additional judicial dis-
trict was created, making 11.

Among the more important bills passed were a
primary-election bill and one to provide for the
better enforcement of the antitrust law, which
was defective in some particulars. The new law
will be impossible of enforcement; also a new liquor
law, and a so-called "amnesty act" in regard to
the payment of privilege taxes.

A Board of Oyster Commissioners was created,
to consist of 5 members appointed by the Govern-
or, the full term of office being five years. They
are to receive, besides their expenses, $5 a day
while engaged, not to exceed twenty days in a
year. Oyster vessels of 1 ton burden gross must
be licensed by them. They are to elect a chief in-
spector at $100 a month, deputy inspectors, 3 or
fewer, at $50 for the canning season, and a secre-
tary at $800.

The office of Insurance Commissioner was crea-
ted. Heretofore his duties have been a part of
that of the Auditor's. Another office created was that of
Assistant Attorney-General.

A State Department of Archives and History
was created, to be established under the auspices
of the historical society, from which the 9 trustees
shall be chosen; and they shall elect a director to
serve at a salary of $1,600.

A portion of the Capitol grounds was set apart
as a Confederate Memorial Park, and certain state
officers were made a commission for its control.

Among other enactments were the following:

1. Providing that any cause of action, or any in-
terest therein, may be sold after suit is brought
thereon, like any other property

2. Raising the salary of the Governor and of
the judges of the Supreme Court to $4,500 each,
and that of the Adjutant-General to $800.

3. Appropriating $50,000 for an exhibit at the St.
Louis Exposition, and creating an exposition bu-
reau, to consist of 5 members appointed by him.
They are to appoint a commissioner who shall receive a salary of no

4. Authorizing the Board of Levee Commissioners
for the Yazoo-Mississippi Delta to levy a tax
upon all privileges exercised within the said levee
district, the taxes not to exceed those levied by the
State on the same privileges.

5. Repeal section 1575 of the code, and prevent
the granting of liquor licenses in towns of less
than 500 inhabitants having police protection.

6. Authorizing supervisors to provide for the chan-
nelling of streams.

A committee that had been appointed to investi-
gate the financial management of the Penitentiary
made a report severely criticizing the administra-
tion of the prison; finding that loose management
and unbusiness-like methods had prevailed; that it was "impossible, even with the most careful and long-continued examination of the books, to ascertain with any degree of accuracy whatever the results of former operations of the board," and that a "large tract of land had been cleared by convict labor for various parties with whom the Board of Control had no farming contracts whatever, and in whose lands the State had no interest whatever," together with other specifications. The Legislature passed a resolution directing the committee to begin investigating anew. A large amount of testimony was taken in open sessions, and the report, while it withdrew some of the charges and modified others, repeated the criticisms on the bookkeeping and the improper use of convict labor. Both houses merely received the report, refusing to adopt it, and discharged the committee. The Board of Control in charge of the prison consists of the Railroad Commissioners, the Governor, and the Attorney-General.

Congress was menaced for an appropriations for Gulfport harbor.

Resolutions were passed condemning the major- ity report of the court of inquiry in the case of Admiral Dewey, and commending that of Admiral Schley, and saying further: Resolved, by the Mississippi House of Representatives, that Admiral Schley is the real hero of Santiago, that he is one of the world's greatest naval commanders, and is entitled to the unfading gratitude of his country.

Resolved, further, that we extend a most cordial invitation to Admiral Schley to visit the State capital during his contemplated Southern tour, and receive a public manifestation of the exalted respect, confidence, and admiration in which he is held by the people of Mississippi.

A resolution of sympathy with the Boers passed both houses.

Another resolution instructed the representatives in Congress to support the bill for the purchase of Temple Farm and the Moore House at Yorktown, Va., by the Government. Still another requested the United States Fish Commission to investigate and report upon the oyster reefs in the State.

The Governor strongly recommended the establishment of a soldiers' home for the State, and it was desired to purchase for that purpose T. C. Davis' old home, Beauvoir. The Senate passed a bill to that effect, but it was defeated in the House.

A concurrent resolution was passed "That the following verses be adopted as the State ode":

For thy grand and varied hills,
For thy clear and rippling rills,
For thy wide and fertile vales,
For thy oaks, and glens, and dales—
I love thee, Mississippi.

With thy mists, and clouds, and storms,
With thy winds, and rains, and storms,
With thy snow, and hail, and sleet,
With thy sunshine and thy heat—
I love thee, Mississippi.

Where thy forests stand serenely,
Where thy prairies roll between,
Where thy rich plantations lie,
Where thy sedges fields—never die—
I love thee, Mississippi.

Brave thy men, thy women fair,
Boys and girls beyond compare,
Proud thy record, years gone by,
Bright thy record, years going by—
I love thee, Mississippi.

Place where first I saw the light,
Place where boyhood made its light,
Place where love and hope grew strong,
Place where home and friends belong—
I love thee, Mississippi.

Here, my heart, thy vigil keep;
Here, my dead, in quiet sleep;
Here, my life, ebb thou away;
Here, my bones, turn back to clay—
I love thee, Mississippi.

The appropriations amounted to $5,997,982, exceeding those of 1000, which were $4,074,284.

The amounts for the new Capitol are not included in either of these aggregates.

Political.—The primary-election law passed this year by the Legislature came before the courts and was pronounced constitutional. At the congressional election in November there was no opposition to the Democratic candidates. The 3 proposed amendments to the Constitution were defeated. The total vote polled was only 18,078, out of a voting population of 234,413.

Gulfport,—This city, the terminus of the Gulf and Ship Island Railroad, celebrated in November the arrival of the first seagoing steamship that ever touched there. For years the city has been a good port at Ship Island. Although this harbor afforded a shipping-point for the products of the mills of the Mississippi coast, its distance from the mainland and the necessity of employing lighter to handle freight limited the character of the business. A port on the mainland was desired, and that has at last been secured at Gulfport.

Missouri, a Western Mississippi valley State, admitted to the Union Aug. 10, 1821; area, 60,415 square miles. The population, according to each decennial census since admission, was 140,455 in 1830; 303,702 in 1840; 682,644 in 1850; 1,182,012 in 1860; 1,721,285 in 1870; 2,168,380 in 1880; 2,637,184 in 1890; and 3,106,605 in 1900. This is an increase since 1890 of 15.9 per cent. The city of St. Louis had in 1900 a population of 575,238. Capital, Jefferson City.

Government.—The following were the State officers in 1902: Governor, Alexander Monroe Dockery; Lieutenant-Governor, John W. Tate; Secretary of State, Samuel B. Cook; Auditor, Albert O. Allen; Treasurer, Robert P. Williams; Attorney-General, Edward C. Crow; Superintendent of Schools, John O. Laycock; Railroad and Warehouse Commissioners, Joseph P. Rice, John A. Knott, W. E. McCully; Superintendent of Insurance, Robert G. Yates; State Geologist, E. E. Buckley; Supervisor Building and Loan Associations, Luther S. Hickman; Commissioner of Labor Statistics and Inspection, William Anderson; Inspector of Coal Mines, Charles Evans; Inspector of other mines than coal, George K. Williams; Warden of Penitentiary, Frank M. Woodrige; Beer Inspector, Gyles Y. Crenshaw; Special License Commissioner, Thomas J. Martin; Adjutant-General, William T. Damron; Factory Inspector, Clement J. Nord- meyer; Judges of the Supreme Court—Waltour M. Robinson, Chief Justice; Theodore Braw- Gavon D. Burgess, William Champa Marshall, Leroy B. Valliant, James D. Fox, James D. Gantt. The only Republican State officer is Waltour M. Robinson, Chief Justice of the Supreme Court.

State elections are held in November, every num- bered years, and all State officers hold for a term of four years. The Legislature holds biennial sessions, beginning in January of odd- numbered years. The Senate was composed of 25 Democrats and 8 Republicans. The House was composed of 82 Democrats and 60 Republicans. James H. Whitecotton was Speaker.
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Finance.—The bonded debt of the State on Jan. 1, 1902, was $1,297,000, showing a reduction in one year of $297,000. The tea and coffee bonds have $439,839 in certificates of indebtedness outstanding, in which the State school and seminary funds are invested, making the total debt amount to $3,690,839. The State's bonds draw 3% per cent. interest, are dated Jan. 1, 1886, and are redeemable after Jan. 1, 1903. The certificates of indebtedness draw 5% and 6% per cent. interest. The bonded debt of the counties and towns is $31,065,192. County and township bonds to the amount of $6,000,000 are outstanding. They are owed by 53 counties, where the indebtedness is

Railroads.—There are 154 steam-railways in the State, operated by 54 companies. Their total mileage is 6,566,36 miles, of which 7,300 is main line. There were 7,297 miles within the past year. Five counties in the State have no railroads. The railways pay a total tax of $928,752. The casualties last year were as follows: persons killed, 228; injured, 1,403. Of those killed, 60 were employees and 4 were passengers. Of the injured, 700 were employees and 160 passengers. All the railroads are of standard gauge except the Missouri Southern and the Southern.

Insurance.—There are doing business in the State 131 mutual fire companies, 10 Missouri town mutual fire, lighting, and tornado companies, 26 foreign fire companies, 47 miscellaneous stock companies, 49 regular life companies, 4 stimulated premium life companies, 3 assessment life companies and associations, and 72 fraternal benefit associations. The business done in the State in 1901 was as follows: Fire—risks written, $252,077,208.42; premiums thereon, $5,900,940.39; losses paid, $4,216,734.43; losses incurred, $4,490,323.86. Marine and inland—risks written, $10,317,474; premiums thereon, $86,751.82; losses paid, $45,797.92; losses incurred, $43,445.56. Tornado—risks written, $282,435,469.44; premiums thereon, $154,110.55; losses paid, $307,037; losses incurred, $3,183.92. Fidelity is written by the number of premiums written, $56,959,115.33; premiums thereon, $212,078.34; losses paid, $59,494.57; losses incurred, $44,505.39. Miscellaneous—risks written, $227,383,080.45; premiums thereon, $1,397,327.45; losses paid, $356,954.96; losses incurred, $384,373.61. Grand total other than life—risks written, $845,329,672.57; premiums thereon, $7,561,234.80; losses paid, $4,918,530.14; losses incurred, $52,918,348.93. The life business done in the State in 1901 was as follows: Policies in force Dec. 31, 1901, number 105,756; amount, $2,070,784,504.69; claims paid in 1901, $3,205,503.21; premiums collected in 1901, $295,842,241.76. The industrial insurance business during 1901 was as follows: The policies in force Dec. 31, 1901, numbered 441,888; amount, $60,189,184; claims paid in 1901, $629,979,367; premiums collected in 1901, $617,947,81.

Education.—The State school fund amounts to $3,159,073.40, and the State seminary fund to $1,235,839.42, all of which is invested in the State certificates of indebtedness, and draws interest at 5 and 6 per cent. The interest is annually distributed among the 9,948 school districts, in proportion to the number of children of school age that they contain. The State school system consists of the State University. Agricultural College, School of Mines, 3 normal schools, 1 industrial institute, 291 primary schools, 256 high schools, and 10,299 public schools.

The State University has an endowment of $1,235,000, and 47,108 acres of unold land. It receives annually from the state a sum of $38,150. Its total annual income is $210,000. The number of students enrolled in June, 1902, was 1,710. The School of Mines and Metallurgy is at Rolla.

The Normal School, at Kirksville, had an enrolment as follows at the time of the last report: Men, 354; women, 501; total, 855. The total enrolment at the Normal School, at Warrensburg, was 1,012. The total enrolment at the Cape Girardeau Normal School was 442; and at Lincoln College for colored teachers, at Jefferson City, 247, of whom 125 were men and 92 women.

The following statistics of schools have been condensed from reports of county commissioners: Enrolment, white,—male, 341,593; female, 337,616; total, 679,209; color—male, 15,677; female, 16,994; total, 32,671; grand total, enrolled, 711,720. Number of teachers employed,—white, 5,807; female, 9,759; total, 15,566; colored,—male, 285; female, 589; total, 774; grand total teachers employed, 16,160. Average salaries of teachers per annum,—men, $290; women, $308. Estimated value of school property, $26,702,576. There are 126 primary schools in the State, employing 1,275 teachers, and having an enrolment of 19,717 pupils, and buildings and grounds worth $7,853,604. They have a total permanent endowment of $6,829,000.

State Institutions.—The State institutions are the Penitentiary, at Jefferson City; the Reformatory for Boys, at Boonville; the Girls' Industrial Home, at Chillicothe; 4 insane asylums,—at Fulton, St. Joseph, Nevada, and Farmington,—a colony for the feeble-minded, at Marshall; a Confederate Soldiers' Home, at Higginsville, which costs $40,000 a year; and a Federal Soldiers' Home, at St. James, which costs $20,000 a year. About $900,000 was spent in the last two years on the buildings of public institutions.

Agriculture.—Seventy-seven per cent. of the land area of Missouri is included in its farms, of which 67.4 per cent. is improved. The number of farms, according to the last census, was 284,886. The value of farm property in 1900 was $1,033,121,897, of which $843,604,213 is lands, improvements, and buildings, $25,602,000 implements and machinery, and $160,540,004 live stock. The value of farm products was $218,296,000. The total increase in the value of farm property since 1850 was found to be 31.4. The number of farms operated by owners was 197,989; by cash tenants, 31,230; and by share tenants, 55,867. Of the farmers of the State, 96.3 are white and 1.7 colored. Of the white farmers, 68.1 per cent. own all or a part of the farms they operate; of the colored farmers, 30.9 per cent. Of the value of crops, cereals contributed 65.5 per cent.; hay and forage, 16.8 per cent.; vegetables, 7.2 per cent.; fruits and nuts, 3.6 per cent.; forest products, 3.7 per cent.; all other products, 3.2 per cent.

Labor.—There are 410 labor organizations in the State, with a total membership of 52,426, of which 51,426 are men and 1,000 women. The total number of strikes in the State in 1901 was 177, of which, according to the Labor Commissioner's report, 119 were settled satisfactorily to the strikers, 33 were compromised, and 15 were lost.

Manufactures.—The Bureau of Labor receives reports from 1,066 manufacturing concerns. The aggregate value of the products in 1900 was $523,711,595, an increase over 1900 of $77,083,903. The average number of males em-
ployed was 80,610; females, 101,453; an increase of 27,890 over the previous year. The amount of money paid out in wages was $46,869,729, an increase over the preceding year of $83,748,198.

Military.—The National Guard of Missouri consists of 1 brigade, comprising 4 regiments of infantry and 1 battery. The numerical strength is as follows: Commissioned officers, 198; non-commissioned officers, 337; musicians, 158, including 4 regimental bands and trumpet corps; hospital and ambulance corps, 64; farriers and blacksmiths, 7; privates, 1,918; total, 2,682.

Political.—The State election took place Nov. 5. Tickets were nominated by the Democratic and Republican parties, and the following parties nominated tickets by petition: Independent, Allied, Prohibition, Socialist, and Socialist-Labor.

The Democratic State Convention met in St. Joseph, July 22, and nominated the following: For Superintendent of Public Schools, William T. Carrington; Railroad and Warehouse Commissioner (long term), John A. Knott; Railroad and Warehouse Commissioner (short term), Joe P. Rice.

The opening sentence of the platform "indorsed and affirmed the Democratic national platform adopted at Kansas City in 1900." Concluding, the platform said:

"We condemn the dishonest paltering with the trust evil by the present Republican administration, and demand the consummation of the trusts to our 'strenuous' President, who, only a few days before Mr. McKinley's assassination, boldly proclaimed in public speech at Minneapolis that the trusts are an evil which the public safety requires should be promptly and mercilessly destroyed, but who, since his accession to the presidency, has struck not one effective blow against them, although holding in his hands all the necessary powers of government, and who, instead of executing his threat to exterminate the trusts, talks now only of regulating them.

"We favor the most stringent national and State legislation for the absolute control and regulation of the trusts, to the end that they will cease to be a menace to our public welfare as well as persecutors of the great army of the laboring people of our land. To that end we favor a consistent tariff revision which will remove the duty or tariff from all trust-made or trust-controlled goods for their purely monopolistic trusts into competition with foreign nations, depriving them of the fraternal support and fostering care of the Republican administration, by which they are now enabled to reduce their labor, minimize their output, grind down the working classes, and arbitrarily fix their own prices in this country, to the great detriment and hardship of our people, while at the same time the people of foreign countries reap all the benefits of the trust's economy by being able to purchase all of our trust products in their own country at fixed reductions varying from 20 to 60 per cent.

"In the event of such legislation failing in its purpose, then we favor the most drastic legislation which can be enacted prohibiting the exist- ence or forming of such trusts, or any other such combinations which will have even a tendency to destroy honest competition in any line of business or make it possible to arbitrarily regulate wages, prices, rates, or charges of any kind.

"We condemn the alarming waste of the people's money in extravagant appropriations by Rep- ublicans, amounting to more than $1,000,000,000 per year, and we heartily ap- prove of the course of our Democratic representa-
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The Republican Judicial Convention met in Joplin, July 15, and nominated the following: For Judge of the Supreme Court, Division No. 1, Edward Higbee; Judges of the Supreme Court, Division No. 2, Henry Lamm and Moses Whybark.

The candidates of the Independent party were: For Judge of the Supreme Court, Division No. 1, Edward Higbee; Judges of the Supreme Court, Division No. 2, Henry Lamm and Moses Whybark; Superintendent of Public Schools, James U. White; Railroad and Warehouse Commissioner (long term), W. S. Crane; Railroad and Warehouse Commissioner (short term), Barney W. Frauenthal.

The candidates of the Allied party were: For Judge of the Supreme Court, Division No. 1, Frank E. Richey; Judges of the Supreme Court, Division No. 2, Henry N. Ees and Zachary Taylor; Railroad and Warehouse Commissioner (long term), Lyman Forgraves; Railroad and Warehouse Commissioner (short term), Oswald Hicks.

The candidates of the Prohibition party were: For Judge of the Supreme Court, Division No. 1, Reuben B. Robinson; Judges of the Supreme Court, Division No. 2, Jonathan Orr and Austin F. Butts; Superintendent of Public Schools, David R. Dungan; Railroad and Warehouse Commissioner (long term), Andrew Grasley; Railroad and Warehouse Commissioner (short term), William N. Keener.

The candidates of the Socialist party were: For Judge of the Supreme Court, Division No. 1, George F. Rudnick; Judges of the Supreme Court, Division No. 2, James A. Slanker and Frank P. O'Hare; Superintendent of Public Schools, A. H. Hull; Railroad and Warehouse Commissioner (long term), Pearl Thompson; Railroad and Warehouse Commissioner (short term), W. L. Phifer.

The candidates of the Socialist-Labor party were: For Judge of the Supreme Court, Division No. 1, Charles Weppermann; Judges of the Supreme Court, Division No. 2, O. M. Howard and George F. Rudnick; Superintendent of Public Schools, Edward Beuing; Railroad and Warehouse Commissioner (long term), Amiel Neidermeyer; Railroad and Warehouse Commissioner (short term), Henry F. Mueller.

To the Democratic ticket were elected. The vote on the candidates for Supreme Judge who headed the tickets was as follows: Valliant, Democrat, 273,091; Higbee, Republican, 228,687; Wippermann Socialist-Labor, 989; Gibbens, Socialist, 6,535; Richey, Allied, 1,841; Robinson, Prohibitionist, 4,945; scattering, 1.

MONTANA, a Western State, admitted to the Union Nov. 8, 1889; area, 146,080 square miles. The population, according to each decennial census since admission, was 132,519 in 1890 and 242,329 in 1900. Capital, Helena.

Government.—The following were the State officers in 1902: Governor, Joseph K. Toole; Lieutenant-Governor, Frank Higgins; Secretary of State, George M. Hays; Auditor, J. H. Calder; Treasurer, A. H. Barrett; Attorney-General, James Donovan; Superintendent of Education, W. W. Welch. These were elected on a fusion ticket of Democrats and Populists. Other officials were: Commissioner of Agriculture, Judson A. Ferguson; Adjutant-General, R. L. McCulloch; Land Register, Thomas D. Long; State Examiner, William Hudnall; Coal-Mine Inspector, Howard F. (Jug) Buchanan; Coal-Mine Commissioner, F. D. O'Neil; Mine Inspector, John Byrne; Inspector of Horticulture, E. N. Brandagee; Chief Justice of the Supreme Court, Theodore Brantley, Republican; Associate Justices, G. R. Milhollin, Republican; P. B. J. McBoyan, Democrat; Clerk, Henry G. Rickerts, Democrat.

The State officers are elected for terms of four years at the time of the presidential elections. The Legislature meets biennially in January of the odd-numbered years.

Finances.—The unexpended balance Dec. 31, 1902, was $616,986.45. The balance of warrants outstanding in the Capitol building funds was $48,049.71; and in the Reformation School building fund, $1,212.20. The warrants drawn on the stock-bounty fund amounted to $110,898.13, which was balanced by the cash on hand.

The bonded debt of the State is $860,000. The debts of the 28 counties aggregate $2,553,979.

Valuations.—The total valuation of the State for taxation, including railroads, is $185,625,657 for 1902, of which $66,001,619 is real, exclusive of railroads, and $66,706,742 personal property. In 1901 the total was $186,787,983. There is a gain of more than $6,000,000 in real, and a loss of nearly $5,000,000 in personal property.

Education.—By the census report there were 11,675 illiterates in the State in 1900. In the percentage of persons four years or older able to read and write Montana stood twenty-seventh in the list, with 98.07 per cent. The total number of children of school age Aug. 31 was 64,623, of whom 32,813 were boys and 31,810 girls.

This year 1,291 teachers were employed—236 men and 1,055 women.

The average length of term in the State was 6.66 months. There are reported 4 private schools, which have 1,839 pupils.

The whole number enrolled during the year was 44,881, while the average daily attendance was 21,471.

Sixty-five districts erected new schoolhouses. The number of districts adopting free text-books was 22, while in 28 districts the proposition was defeated by vote of the people. There are 48,510 volumes in the district libraries. The average salary for male teachers is $76.89, and for female teachers $52.04.

The State Normal School had an attendance of 118 in December. The School of Mines had 62. A night-class organized for young men employed during the day had 32. The expenses of the school amount to about $24,516.

The enrolment at the Agricultural College, at Bozeman, was about 250 in the fall term. The estimated expense for 1902—03 was $35,420, of which the Government contributes $20,000.

The science hall of the State University, at Missoula, was damaged by fire, March 13, to the extent of $5,568.

Banks.—There are 21 State banks, with total resources $15,254,236. The loans and discounts amount to $7,924,946, besides those on real estate, $797,030. The deposits amount to $11,980.693.

The State Savings—Bank of Butte has resources $4,133,889.

The defaulting teller of the First National Bank of Great Falls pleaded guilty in May, and was sentenced to ten years in the Penitentiary.

Telephones.—There has been a marked increase in the telephone business of Helena, which now has more than 500 telephones. Butte has 1,500 instruments. Great Falls has 325 telephones, Missoula 275, Anaconda 200, and Bozeman 110.

Charities and Corrections.—A new building has been provided for the Asylum for the Deaf, at Boulder. About 12 blind children are taught there.
The insane are provided for by contract at the rate of 65 cents a day, and the State convicts at 45 cents. The number of patients in the insane asylum averages 500, of whom about one-fifth are women.

Deer Lodge Prison had in April 465 convicts, about 130 more than in the previous year. About 20 were women.

The number of inmates at the Reform School, at Miles City, was 94, of whom 82 were boys and 12 girls. The report details the expenditures of $21,998.47 for 1901 and $22,223.11 for 1902.

Military.—There are 34,000 men liable to military service. The infantry regiments of the National Guard consist of 2,615 men. The State appropriation is $10,000.

Railroads.—The State is credited with 127 miles of new track in 1901, and 53 during the first month of 1902. The valuation of the roads for taxation is somewhat more than $30,000,000.

The Capitol.—The new Capitol was finished in June and dedicated in November by previous appointment. July 4. The contract price of the building was $298,993; the actual cost to the contractor is given as about $240,500.

Industries and Products.—The value of the principal mineral products of the State in 1901 was estimated as follows: Gold, $4,802,717; silver, $18,354,443; copper, $36,751,837; lead, $498,625; total, $83,297,019.

The silver is said to be at coinage value by the Government rate of $1.29 an ounce; figured on the average market price, the value would be less than half that given in this estimate. The preliminary estimate of the Director of the Mint for the production in 1902 gives Montana's gold product as in value $4,134,365, and silver, $6,900,000.

The report of the United States Geological Survey for 1901 shows that Montana produced in that year $90,000,000 worth of sapphires. Nearly all these stones were mined in the Yogo fields, in Fergus County. The value of the sapphires mined in Montana exceeded that of any other precious stones mined except turquoise, whose value amounted to $118,000.

Rubies are found in the State, but none have the deep color of the Oriental stone.

New deposits of corundum have been found in Gallatin County.

According to statistics gathered by Commissioner Ferguson, there was a falling off in the production of coal in Montana in 1901 as compared with 1900. The total production was 1,442,569 tons.

There are, according to the latest estimate of the survey, 32,000 square miles of coal-bearing formations in Montana.

There were 35 accidents in the coal-mines in 1902, of which 7 were fatal. The whole number of fatal accidents in mines was 35.

The total value of the stone quarried, including plaster of Paris and other by-products, was $470,142, compared with $392,194 the previous year.

There are 20 breweries in the State, employing about 250 men, with a capital estimated at $1,271,000. The amount of beer manufactured was greater than in any other year, the number of barrels being 163,283.

A table of industrial statistics for 1900 gives the value of the manufactured products of Montana at $48,900,000.

The report of the State Board of Stock Commissioners shows that in 1902 the State produced 151,986 beef cattle, of which 92,000 head were shipped to points out of the State. Exceeding all other States in wool-grow-

ing, the clip having been about 33,000,000 pounds this year.

The farms of Montana, June 1, 1900, numbered 13,370, and had a value of $629,026,00. Of this amount, $9,365,530, or 15.1 per cent., represents the value of buildings, and $52,600,580, or 84.9 per cent., the value of land and improvements other than buildings.

Lands.—The wooded area in the State is about 42,000 square miles. The records of the State Land Office show a remarkable increase in the sale and lease of State lands. The State's holdings now amount to 2,020,977.73 acres. Of this amount, 304,914.24 acres are timber land, showing an estimate of 882,590,000 feet of law timber; 65,683.03 acres are classified as agricultural, and the remainder of 2,650,470 are classified as grazing lands.

From the leased land the State received the annual sum of $196,553.52. The school lands under lease exceed 1,350,000 acres.

Reserves.—By proclamation, Aug. 16, the President created a reserve on the coal-mines of the Little Belt in Montana, to be known as the Little Belt mountain and the Madison forest reserves. A large amount of land is withdrawn from public entry, and the Government will undertake to protect many millions of feet of timber on the land from the ravages of fire. The Little Belt mountain reserve includes timber land in the range of mountains bearing the same name, situated in a portion of Meagher, Fergus, and Cascade Counties, and is quite close to Helena. The Madison reserve lies almost wholly in the county of that name, excepting a very small portion which laps over into Gallatin County. The Lewis and Clarke reserve contains 4,757 square miles.

Legal Decisions.—By a decision of the United States Supreme Court, the anti-trust laws of many States are pronounced unconstitutional. The ruling applies to all that make exceptions in favor of any class or classes.

The law of the Legislature of 1901 extending the operation of the statute of limitations upon accounts from three to five years has been declared invalid because it never passed the Senate, though it was signed by the President of the Senate and by the Governor.

The antigambling law was attacked, but was upheld by decision of the Supreme Court. One of the test cases was in regard to a slot-machine.

Political.—An election was held in May for an Associate Justice of the Supreme Court, a member of Congress, State Representatives, and local officers.

The Socialists were first in the field with a State ticket. Their convention was held at Bozeman, in July. W. F. Cameron was named for Associate Justice and George B. Sprout for Congress.

The resolutions called for an eight-hour amendment to the Constitution, and one prohibiting blacklisting, an employers' liability law, the initiative and referendum, and woman suffrage: expressed sympathy for the miners of Pennsylvania; and said regarding fusion: "That the Socialists must never recognize, unite, or affiliate or fuse in any way with any other political party. That any candidate on our ticket must refuse the endorsement of any other political party because it insinuates our acceptance of their platform. We call upon the State membership to expel at once any member who proposes compromise or fusion."

There was dissension in the Democratic party this year, Senator Clark and F. Augustus Heine being at the head of the two factions. The Clark faction gained control of the State convention.
which met at Bozeman, Sept. 24. Jere B. Leslie was nominated for Associate Justice, and John M. Evans for member of Congress. The Heinz faction then organized the State, making nominations and charges against each other the other party of bribery and corruption.

Early in the year the factional troubles in the Republican party broke out in a meeting of "straight Republicans" in Helena, Jan. 6, when a preamble and resolution were passed protesting against the domination of the "machine" controlled by ex-Senator Carter. The resolution was sent to the President.

Apparently the quarrel was settled or compromised before the State convention, which met in Great Falls, Sept. 27, and nominated W. L. Holloway for Associate Justice and Joseph M. Dixon for member of Congress.

In October the Populist and Labor parties in a joint convention nominated Judge Holloway.

The Republican candidates were elected. The vote for Justice stood: Holloway, Republican, 31,600; Leslie, Democrat, 21,204; Cameron, Socialist, 2,400; Fox, Independent, 2,600.

The State Senate will have 12 Democratic, 13 Republican, and 1 Labor member; the House, 9 Democratic, 45 Republican, 9 Labor, and 5 Democratic.

NEBRASKA, a Western State, admitted to the Union March 1, 1867, area, 77,531 square miles. The population, according to each decennial census since admission, was 122,993 in 1870; 452,405 in 1880; 1,085,910 in 1890; and 1,068,539 in 1900. Capital, Lincoln.

Government.—The following were the State officers in 1902: Governor, Ezra P. Savage; Lieutenant-Governor, C. F. Steele; Secretary of State, George W. Marsh; Treasurer, William Stuefer; Attorney-General, F. N. Prout; Auditor, Charles Weston; Adjutant-General, J. N. Kilian, succeed ed by William Hayward, who in turn was succeeded by L. W. Colby; Superintendent of Public Instruction, W. K. Fowler; Commissioner of Public Lands, G. D. Follmer—all Republicans; Chief Justice of the Supreme Court, J. J. Sullivan, Democrat; Associate Justices, W. J. Sedgwick, Republican, and S. A. Holcomb, Fusion; Clerk, Lee Herdman.

The State officers are elected in even-numbered years, the term beginning in January of odd-numbered years. The Legislature holds biennial sessions, beginning in January of odd-numbered years.

Finances.—The report of the Treasurer for the biennium beginning Dec. 1, 1900, and ending Nov. 29, 1902, presents the following remarks and suggestions: A balance of $3,074,10 in the Normal School fund and $4,986 in the Penitentiary fund is not available on account of the failure of the Legislature to make the necessary appropriation. The amount of $64,74 derived through the operation of the inheritance-tax law is unavailable because the law does not designate the fund to which it is to be credited.

The investment of the educational trust funds of the State in interest-bearing securities, the Treasurer recommends, should receive the earnest attention of the Legislature until a wise and practical solution is obtained. Under present constitutional limitations, municipal bonds and school district bonds are not available for investment. The recent decision of the Supreme Court holding that bonds of other States are available securities has temporarily relieved the situation, and particularly all the educational trust funds are now invested. In the biennium just closed the total investments amounted to $2,839,825.43. But it has been impossible to keep all the trust funds invested at all times. The Treasurer suggests a constitutional amendment authorizing investment in municipal and school district bonds coupled with a provision for the deposit of any uninvested balance in depository banks. The trust funds hold as investments bonds and warrants to the amount of $6,456,977.90.

The floating indebtedness of the State is $1,989,259.83, consisting of warrants drawn on the general fund. The educational trust funds hold $1,457,361.50 of this amount. This floating debt has been created by making appropriations larger than the amount that could be collected from the State levy upon the assessed valuation of property.

The general financial statement for the biennium ending Nov. 29, 1902, is as follows: Balance Dec. 1, 1900, $615,018.34; receipts from Dec. 1, 1900, to Nov. 29, 1902, $6,742,551.71; total, $7,357,570.05; disbursements from Dec. 1, 1900, to Nov. 29, 1902, $6,925,314.67; on hand Nov. 29, 1902, $432,253.38.

The receipts and disbursements of the treasury from Dec. 1, 1900, to Nov. 29, 1902, inclusive, were as follows: General fund, receipts, $2,159,532.36; payments, $2,100,250.92; Sinking-fund receipts, $11,017.58; payments, $67,782.81. Permanent school fund receipts, $2,463,595.69; payments, $2,504,792.07. Temporary school fund, receipts, $1,340,975.09; payments, $1,334,006.45. Permanent university fund receipts, $65,573.15; payments, $65,500.97. Agricultural College endowment fund, receipts, $138,882.62; payments, $160,482.93. Temporary university fund receipts, $422,541.25; payments, $383,522.69. Hospital for Insane fund, receipts, $1,406.92; payments, $291.07. State Library fund receipts, $7,513.50; payments, $8,148.21. University cash fund receipts, $53,491.34; payments, $55,272.97. Normal Library fund receipts, $3,105.17; payments, $3,990.51. Normal endowment fund receipts, $157,762.77; payments, $44,000. Normal interest fund receipts, $5,665.35; payments, $4,604.17. Penitentiary special labor fund receipts, $46,141.38; payments, $43,765.11. Penitentiary land fund receipts, $1,730. Agricultural and Mechanic Arts fund receipts, $30,000; payments, $31,841.17. United States experiment station fund receipts, $30,000; payments, $30,423.07. Inheritance tax fund receipts, $64.74. Total receipts, $6,810,334.52; total disbursements, $6,903,067.48.

Education.—State Superintendent W. K. Fowler issued a new educational directory, giving statistics for the year ending July 8, 1901. There are 6,675 districts in the 90 counties, and 6,773
schoolhouses. The whole number of teachers employed is 9,485, at an average monthly salary of $40.08. Of the 37,000 children of school age (five to twenty years), 20,183 are enrolled. It costs the State an average of $13.30 a year to educate each enrolled pupil, but this amount is increased to $21.62 on the basis of average attendance. The value of district property is estimated at $98,700,683.79.

In apportioning the temporary school fund among the counties in December, 1902, the Superintendent had at his disposal $236,322.88, the smallest amount available for several years. The whole number of persons of school age in the State being 74,304, the rate per pupil was 63 cents. In the May apportionment the rate was $1.11, and in the previous December 84 cents. The smallness of the fund is explained by Treasurer Steuerer by the fact that during his term $860,000 has been paid in by holders of educational lands, necessitating the reinvestment of this money in bonds and warrants bearing only 3 per cent. interest, just half the rate on the land contracts, and little or no return is to be expected on many of the securities for some time.

Difficulty was experienced at the opening of the school term in September, in securing teachers, the salaries not being large enough to attract either men or women, who could secure more profitable employment in harvesting the unusually plentiful crop.

The Superintendents of schools, in all the counties, exposed the national education system for the third time. It was charged that the State was not fulfilling its obligations, that the public school system was not providing the necessary educational facilities for the children of the State. The complaint was made that the teachers were not adequately paid, that the schools were not properly equipped, that the attendance was too small, and that the States and counties were not willing to give the necessary support to the schools. It was also charged that the State was not doing its share in the support of the schools, that the counties were not giving the necessary support, and that the schools were not properly managed.

The Superintendent of the University of Nebraska decided to adopt the Omaha Medical College as an affiliated school. Students will pursue two years of their medical course at Lincoln, and the remaining two at Omaha, where they will have the benefit of the clinical work to be found in a city. But, 1,500 acres of school lands remained unleased in April, 1902.

Products and Resources.—Census Bulletin No. 193, published in July, 1902, gives the agricultural statistics for the past ten years. The farms at Nebraska, June 1, 1900, numbered 121,525, and were valued at $577,690,620. Of this amount 60.8 per cent. represents the value of buildings and 24.2 per cent. the value of land and improvements other than buildings. The total value of farm property was $747,950,067.

In 1902, the number of dairy cows in the State was 51,224; of other neat cattle, 2,623,099; horses, 790,318; mules and asses, 53,856; sheep, 335,930; swine, 4,128,000.

In 1890, 3,014 manufacturing establishments were enumerated, with a capital of about $37,500,000, producing $33,000,000 worth of goods at a cost of $35,333,333, with a net profit of $7,115,778. In 1900, 5,414 establishments, with a capital of about $72,000,000, at a cost of $125,000,000, produced $144,000,000, yielding a net profit of about $21,000,000.

Deputy Food Commissioner Basset issued his biennial report in December. He estimated an increase of 33% per cent. in the production of butter, over that of 1901. In this report the commissioner asked that the Legislature give him control of all the foodstuffs, in order more effectively to enforce the law against food adulterations. The Commission reported having issued 436 permits since its organization, and received $4,296 in fees.

The University Agricultural Experiment Station published a report made up from 500 replies of alfalfa-raisers regarding the number of processes employed, and also the care of the crop. Bottom-land produced somewhat larger crops than upland, but sustained greater loss from winter killing. A clay subsoil was found to be no impediment in a large number of cases. Early sowing—no use of a nurse crop, sowing broadcast with subsequent harrowing, and the use of 20 pounds of seed to the acre—are the principal approved conditions. Disking—that is, going over the ground with a disk harrow before growth begins, or in summer immediately after cutting—is beneficial, as this process cuts the crown root and stirs the soil.

Cattle suffered severely from what is called the corn-stalk disease which was pronounced by prominent veterinarian not to be a disease, but a dietetic error, in that corn-stalks when not properly cared for lose their nutrient qualities.

Coal was discovered in the Black Hills, and iron ore is found in the neighborhood of Jamestown; and subsequent borings led to the belief that the vein underlies a large part of the country around Jamestown and may be mined with advantage.

Legal Decisions.—The constitutional amendment relating to the vote to amend the Constitution was proposed in due form by the Legislature during the incumbency of Governor Morrill, but it was not acted upon by the voters. The amendment was received by Secretary of State Marsh under the advice of Attorney-General F. N. Prout, who declared that since the power of initiative rested with the Legislature, the Governor had no power over the proposed amendment, either to approve or to veto. His view was supported by citations from the Constitution and from decisions of the Supreme Court.

On Oct. 9 the judgment of the Supreme Court, written by Commissioner John R. Ames and concurred in by Judge Holcomb and Judge F. B. Swick, restrained the School Board of District 21 of Gage County from permitting a teacher to continue the practice of reading the Bible, singing certain songs, and offering prayers on the ground that the exercises were sectarian and forbidden by the Constitution. Attorney E. O. Kreisinger, representing the School Board, filed a motion for a rehearing, and received permission to submit his brief in support of it by Dec. 20. The decision of the court attracted attention throughout the United States.

One of the hardest fought legal battles began June 8, when the Supreme Court was taking testimony on the application of the Bee Building Company of Omaha for a writ of mandamus to compel the State Board of Equalization to approve railroad franchises. The application was denied on the ground that the franchises were for separate and apart from tangible property, and thereby increase the value of the roads above the amount fixed at the spring meeting of the board. The defense of the board was that it had assessed franchises: the attorneys for the railroad concurrently maintaining that, as the courts had failed to define a franchise, the action of the board was arbitrary. The consideration earnings and the fact that the lines were in active operation constituted the taxing of franchises. The court denied the application.

The Real-Estate Exchange of Omaha attempted
to enter a protest upon the City Council, during its sitting in January as a board of equalization, consented to disallow a disproportion between the assessments of real estate and the property of such corporations as the street-railway, electric-light, telephone, gas, and water companies. The Council refused to entertain their protest, and an injunction was served by the Supreme Court restraining the Council from passing the tax-levy ordinance until a hearing had been secured in the cases of the 5 corporations above mentioned. The litigation lasted three months. The injunction was dissolved on May 18, after the hearings had been completed, and resulted in an increase of $1,023,190 in the assessments of the 5 public-service corporations. The ruling was that the bonded indebtedness of the corporations, instead of being subtracted from the taxable property, be added to it.

Penitentiary.—The $75,000 appropriated by the Legislature to rebuild the Penitentiary, which had suffered by a fire, proved insufficient to complete the new structure, and work was suspended.

Political.—In the State election, Nov. 4, the Republican ticket was successful by a large majority. The following were the officials chosen: Governor, John H. Molitor-Governor; E. G. McGilton; Secretary of State, George W. Marsh; Treasurer, Peter Mortensen; Auditor, Charles Weston; Attorney-General, Frank N. Front; Commissions of Probate, Justice, and Buildings, George D. Foller; Superintendent of Public Instruction, William K. Fowler. The 5 Representatives elected to Congress were all Republicans.

The platform adopted at the party convention in June expressed its sympathy with the President's policy in favor of the national irrigation laws; favored a speedy revision of the State Constitution to meet the changed conditions of the new century; called for the enactment of additional laws to hold every custodian of public funds responsible for the repayment of principal and accruing interest; called attention to the necessity of increasing the State's revenues and reducing the State's debt, which had exceeded the State's income for the first time in its history ($400,000), requiring a more strict enforcement of the laws relating to assessment and taxation, also requiring a revenue from all non-resident corporations writing life and accident insurance in the State; favored the creation of a board of pardons to investigate and pass upon applications for executive clemency; favored the creation of a board of audit, who should examine the accounts of the State Treasurer and periodically make public reports.

In the April town elections the main contest was over the liquor question, and high license won in a majority of cases.

An amendment to the State Constitution, proposed by George W. Marsh, Secretary of State, was voted on at the November election. The proposition was to make it easier to amend the Constitution by requiring that when amendments have been agreed to by three-fifths of the members elected to each house and published at least once each week in at least one newspaper in each county for a period of thirty days before an election of Senators and Representatives (the procedure for the introduction of an amendment to the Constitution), the amendment shall become a part of the Constitution if its adoption is approved by a majority of voters voting at such election on the proposed amendment (the term, “the vote of “a majority of the electors voting at such election”). The amendment was defeated by the provision which it sought to correct. Out of the 185,574 votes cast at the election, 49,147 were cast in favor of the amendment, 136,427 against it, the total for and against not being a majority of the whole.

NEVADA, a Western State, admitted to the Union Oct. 31, 1864; area, 116,700 square miles. The population, according to each decennial census since admission, was 42,491 in 1870; 82,596 in 1880; 45,761 in 1890; and 42,335 in 1900. Capital, Carson City.

Government.—The following were the State officers in 1902: Governor, Reinhold Sadler; Lieutenant-Governor, James R. Judge; Secretary of State, Eugene Howell; Treasurer, David M. Ryan; Comptroller, Samuel P. Davis; Attorney-General, William Woodburn; Surveyor-General, Edward D. Kelley; Superintendent of Public Instruction, Orris King; Adjutant-General, James R. Judge, ex officio; Chief Justice of the Supreme Court, Thomas V. Julien; Associate Justices, Charles H. Beiknap, Albert L. Fitzgerald; Clerk, Eugene Howell, ex officio. All are of the Southern Democratic party except Superintendent King, who is a Republican. William A. Massey resigned as Chief Justice of the Supreme Court, and Gov. Sadler appointed Thomas V. Julien to fill the unexpired term.

State officers are elected in November, once in four years. An Associate Justice of the Supreme Court is elected in the State every second year. The Legislature meets every second year on the second Monday in January.

Finances.—The treasury, Dec. 31, 1902, had $299,810.50 in coin. The State funds securities were: Irredeemable State school funds, Nevada 4 per-cent, $240,100; Nevada 5 per-cent, $380,000; United States 4 per-cent, $900,000; total, $1,520,100. In 1902 the Bond Commissioners redeemed $13,000 worth of bonds and issued $15,500. The Nevada war claims against the Government amounts to $402,000. The annual report of the Treasurer shows that the State is better in a financial way than it has ever been.

Lands.—The grants to the State were 2,732,884.70 acres, of which 30,282.36 acres are still due to the State. There are 450,000 acres of reverted lands, the greater part of which are for sale at $1.25 an acre. The State has issued patents for 60,000 acres, and still holds an estimated 61,250,000 acres in the State are owned by the General Government.

Education.—The school population between the age of six and eighteen years is 9,377. The semiannual apportionment was $70,414.27.

Products.—The number of cattle in the State is estimated at 50,000, and the sheep from 5,000,000 to 7,000,000.

Political.—The Democratic State Convention met in Reno on Aug. 26, 1902. The Silver Party Convention also met on the same day. After a three days' meeting the two parties agreed to a fusion, and the following ticket was nominated: For Congressman, Clarence Van Duzer; Governor, John Sparks; Lieutenant-Governor, Lemuel Allen; Supreme Judge, George F. Talbot; Attorney-General, James G. Sweeney; Secretary of State, Eugene Howell; Treasurer, David M. Ryan; State Comptroller, Samuel P. Davis; Surveyor-General, Edward D. Kelley; Superintendent of Public Instruction, John Edwards Bray; Superintendent of State Printing, Andrew Maute; Regents of the State University, William W. Booher (short term), Richard Kirtion (the term, “the vote of “a majority of the electors voting at such election”). The amendment was defeated by their platform pledged to them the free and unlimited coinage of silver; opposed trusts and
monopolies of any kind; favored an eight-hour law for workmen; voted the election of United States Senators by the direct vote of the people; favored the irrigation law in every form; opposed the leasing of public lands to individuals or corporations; and pledged their votes to Francis G. Newlands for United States Senator.

The Republican Convention met in Reno on Sept. 12, 1892, and nominated the following ticket: For United States Senator, Thomas P. Havley; Congressmen, Edward B. Farrington; Governor, Abner C. Cleveland; Lieutenant-Governor, Frank J. Button; Justice of Supreme Court, P. J. Bowler, Jr.; Secretary of State, William G. Douglass; Comptroller, Milo C. McMillian; Treasurer, Simon Bray; Attorney-General, Samuel Platt; Surveyor-General, Walter C. Gayhart; Superintendent of Public Instruction, Orvis Ring; Superintendent of State Printing, William W. Booth; Regents of State University, Herman H. Springmeyer (short term), Edward E. Dodge (long term).

Their platform approved the administration of President Roosevelt; favored the largest use of silver as money metal in all matters compatible with the best interests of our Government; approved the efforts of the present administration to enforce to the fullest extent possible the Sherman antitrust law; favored labor-unions in all their lawful acts and procedures as being powerful instrumentalities for the public good, and declared themselves in favor of an eight-hour working day; favored territorial expansion; opposed any constitutional amendment authorizing a lottery; opposed the pollution of rivers and reservoirs; favored the election of United States Senators by direct vote of the people.

At the election, Nov. 4, 1902, the following ticket was elected: Congressman, Clarence Van Duzer, Democrat; Governor, John Sparks, Democrat; Lieutenant-Governor, Lemuel Allen, Democrat; Supreme Judge, George F. Talbot, Democrat; Secretary of State, William G. Douglass, Republican; Comptroller, Samuel P. Davis, Democrat; Treasurer, David M. Ryan, Democrat; Attorney-General, G. E. Evenson, Democrat; Surveyor-General, Edward D. Kelley, Democrat; Superintendent of Public Instruction, Orvis Ring, Republican; Superintendent of State Printing, Andrew M. Butter, Democrat; Superintendent of State Printing, William W. Booth, Democrat, Richard Kirkman, Democrat.

The total vote cast for Governor was 11,318; for Congressmen, 10,921. Francis G. Newlands, Democrat, will have, on joint ballot in the Legislature, 44 votes, insuring his election.

NEW HAMPSHIRE, a New England State, one of the original thirteen, ratified the Constitution June 21, 1788; area, 9,305 square miles. The population, according to each decennial census, was 141,885 in 1790; 183,858 in 1800; 214,460 in 1810; 244,022 in 1820; 269,328 in 1830; 294,574 in 1840; 317,976 in 1850; 326,073 in 1860; 318,260 in 1870; 346,991 in 1880; 376,530 in 1890; and 411,588 in 1900. Capital, Concord.

Government.—The following were the State officers during the year: Governor, Chester B. Jordan; Secretary of State, Edward N. Pearson; Treasurer, Solon A. Carter; Adjutant-General, Augustus D. Aylings; Insurance Commissioner, John C. Linehan; Labor Commissioner, Lysander H. Carroll; Superintendent of Public Instruction, Channing Folsom; Bank Commissioners, Alpheus W. Baker, John Hatch, George W. Cummings; Railroad Commissioners, Henry W. Foss, Charles F. Faulkner, E. B. S. Sanborn; State Librarian, Arthur H. Chase; Chief Justice of the Supreme Court, Frank N. Parsons; Associate Justices, William M. Chase, Reuben E. Walker, James W. Remick, George H. Bingham; Chief Justice of the Superior Court, Robert M. Wallace; Associate Justices, Robert J. Pessaie, Robert G. Pike, John E. Young, Charles F. Stone; Attorney-General, Edwin G. Eastman.

The State elections are held biennially in November of even-numbered years. The Legislature meets in January of odd-numbered years.

Population.—Of the population of the State in 1900, 410,791 were white and 797, including 112 Chinese and 22 Indians, were colored. The native born numbered 323,431, and the foreign born 88,107. There were 119,893 of school age—between the ages of five and twenty years; and there were 88,149 males of military age—between eighteen and forty-four inclusive. Of the 168,453 males ten years old and over, 12,040, or a little more than 7 per cent., could not read and write; and of the 169,410 females of the same age, 9,032, or 56 per cent., were illiterate. There were 357,893 persons ten years old and over, and of these, 178,719, or 53 per cent., were engaged in gaining their livelihood, either as wage-earners or as the proprietors of some business. Of these workers, 136,901 were males and 41,758 were females. Of the 178,719 who were at work, 38,782 were engaged in agricultural pursuits, 7,785 in the professions, 30,576 in domestic and personal service, 25,651 in trade and transportation, and 75,848 in manufacturing and mechanical business. Thus it appears that only a little more than 21 per cent. of the State's population above ten years of age can be classed as agricultural, while 42 per cent. are mechanics or manufacturers, 14 per cent. are in trade or railroading, 17 per cent. in domestic and personal service, and 44 per cent. in professional work.

There were 47,652 families, and of these 51,017 owned the homes they occupied. Of these homes, 36,078 were unencumbered and 13,514 were mortgaged. Of the 25,472 farm homes, 18,446 were unencumbered, and 6,019 were encumbered.

Finances.—Cash in the Treasury June 1, 1901, $447,907.02; receipts during the year 1901-02, $1,359,322.67; total, $1,837,229.69. Disbursements during year ending June 1, 1902, $1,291,614.57; cash on hand at same date, $575,815.12; total, $1,837,229.69. Liabilities June 1, 1901, $1,793,795.36; assets same date, $785,162.45; net indebtedness June 1, 1901, $1,008,632.91. Liabilities June 1, 1902, $1,069,071.30; assets same date, $912,838.84; net indebtedness June 1, 1902, $756,432.36. Reduction of debt during the year was $252,200.55.

The Treasurer says: "The net results of the year's business show a reduction of the State's indebtedness, notwithstanding the large appropriations of 1901 for public institutions and new enterprises. This is explained by the reduction of the annual interest charges, by the redemption of municipal war-loan 6 per cent. bonds, and the receipt from the United States of $106,372.35 for
interest on notes and bonds issued for raising and equipping the State's quota of troops during the civil war. The debt will never be free from debt, by reason of the obligations it has assumed in the acceptance of certain trust funds upon which it has contracted to pay interest forever. The Benjamin Thompson Trust fund, which originally amounted to $303,622.32, will, on Jan. 30, 1910, amount to $797,181.67. The State will have added to the original fund $433,538.35, and after Jan. 30, 1910, will be obliged to pay in cash annually to the New Hampshire College of Agriculture and the Mechanic Arts 4 per cent. on $797,181.67—an annual interest charge of nearly $40,000."

The supervision of the Bank Commissioners' 77 savings-banks, 13 banking and trust companies (7 with savings-bank departments), and 17 building and loan associations. This includes the savings banks and trust companies now in the hands of assignees. The savings-banks now in active operation show an aggregate of resources on June 30, 1902, of $70,775,851.76; there is $65,626,169.18 in cash on hand and on deposit, $58,785,785.36; the surplus and the guaranty fund amount to $10,475,692.50. Per capita deposits for the entire population of the State, $146.39. The value of deposits for the year was $3,171,429.14, and the number of depositors has increased from 142,460 to 147,929. Unwise investments in distant States, induced by high rates of interest, have wholly ceased, and, under a conservative investment law, satisfactory investments in securities proper for trust funds have taken place.

But little change in the volume of business of the building and loan associations is shown. The loans to members on homesteads on June 30, 1902, was $1,595,628.14; loans on shares, $41,640.20; loans to others not members, $38,666.08. The book value of real estate held by this associations was $65,790.90; cash on hand and on deposit, $58,785,785.36; total assets, $1,740,116.64. The withdrawals during the year were: Dues capital, $180,358.50; dues retired, $80,098.50; deposits, $58,785,785.36; surplus and guaranty fund, $10,475,692.50. The profit for the year was $30,306.62; profits matured, $53,330.93. The shares account shows additions during the year of 5,821; withdrawn, 3,127; forfeited, 25; retired, 84,219; divided other dividends, $1,741.06.

Insurance.—The report for 1901, issued May 1, 1902, shows the withdrawal of 7 companies from the State and the admission of 1. The number of companies now doing business in New Hampshire is 113—83 stock companies and 30 mutual companies—a net loss of 6. The total business transacted within the State by all authorized companies for the year was: Risks written, $1,115,451,490.96; premiums received, $1,456,852.36; losses paid, $875,384.92: a gain of about $9,000,000. The largest amount written in any previous year was $1,003,008,480.96; premiums received, $1,561,528.92; losses paid, $849,342.92. The financial condition of all the companies doing business in New Hampshire on Jan. 1, 1902, was as follows: Total paid-up capital, $44,677,875; total surplus, $140,473,705.76. By surplus to policy-holders is meant the surplus over all liabilities added to the amount paid-up capital; for both amounts are available, if necessary, for the payment of loss claims.

From 1897 to 1901, inclusive (thirty-four years), nearly all the companies, the life companies of New Hampshire and of all foreign stock and mutual companies. They believed it impossible to do business with safety and profit under that law. In 1880, however, they began to return; and business went on as before. The ratio of losses to premiums, from 1867 to 1884, inclusive, under the old law common to most of the States, was 68.81; the ratio of losses under the "valued-policy law," from 1889 to 1901, inclusive, was 50.25—fairly showing the good new law to New Hampshire and to the insurance companies compared with the old law. Nothing could induce the State to return to the old system of insurance.

Railroads.—The history of steam-roads for 1902 is mainly a repetition of last year's statement. Mileage, rentals, and dividends are precisely the same. The State, in the meanwhile, has been authorized by the Railroad Commissioners of Maine, New Hampshire, and Massachusetts to increase its capital stock $1,000,000 by issuing 10,000 shares, per voter $50.25; the increase will be expensed in the further abolishing of grade-crossings, in permanent repairs on the Worcester, Nashua, and Portland branch, and for other lawful purposes.

The electric-road mileage now in operation is 223 miles, with 10 miles more in process of construction. Their capitalization is $3,451,000 in stock and $2,160,000 in bonds, an average of about $25,430 a mile.

State Library.—This institution aims to be the central reference library of the State, supplementing the public libraries of the towns and cities, and furnishing aid to professional men, historians, scientists, and others within the borders of the State. The State has provided it with a commodious fire-proof building, well adapted for its needs. Upon its shelves are over 60,000 bound volumes, besides a very large number of unbound volumes. The average annual increase for the past few years has exceeded 6,500 bound volumes and an equal number of unbound volumes. When the legal department is the largest and most complete at present, much thought and effort is being given to the medical, historical, agricultural, scientific, religious, agricultural, other departments, the end that all may be eventually as well served as is the legal profession. Much attention has been given during the past few years to the collection of proceedings and publications of societies of all kinds, with the result that the library to-day contains one of the best collections in the country.

National Guard.—The guard consists of 1 brigade of 2 12-company regiments of infantry, 1 14-gun light battery, 1 troop of cavalry, 1 signal corps, and a hospital corps. The infantry is armed with the new obsolete breech-loading rifle, caliber 0.45, but a few of the Springfield magazine rifles, caliber 0.30 (Krag-Jorgensen), have been issued to each of the companies for rifle practise on the ranges, with the result that an unusual number of sharpshooters and marksmen have qualified. The interest in this branch of a soldier's education has been much increased.

New flag-case for the battle-flags of the war regiments of New Hampshire, the civil and Spanish wars have been erected in the Dorril Hall of the State-House. These cases, of unstained mahogany, are lined throughout with copper and encased in front with brass (not for them not only dust-proof, but practically air-tight).
The State Prison.—The average daily population for 1901–02 was 150—a little more than the preceding two years, but much less than from 1895 to 1899. There have been no escapes since 1870. Trouble with the men is practically unknown. There are but 2 female convicts.

Prisoners are now sentenced under the indeterminate-sentence act of 1901, which went into effect in May of that year. Eight have been paroled under that act, but so recently that nothing can be said concerning the results. The most effective inducement to the convicts to submit bravely and patiently to their duties during their imprisonment is the provision for commuting sentences for good behavior.

State Hospital.—The sum of $15,000 was appropriated by the Legislature to provide fire-proof elevator wells for the food-elevators, a tower containing an iron stairway to serve as a fire-escape for the chapel building, a new oven and tile floor for the bakery, and a new cottage for the head farmer.

The summer sanatorium, located at Lake Penacook and distant 4 miles from the hospital proper, continues to be a most useful supplement to the remedial equipment of this institution. This addition now includes 50 acres of land, 2 cottages for men and women patients, besides small stable and barn. An average of 30 patients have been accommodated there during the summer months.

The Training-School for Nurses has been eleven years in successful operation. Its efficiency has been greatly increased during the past year by an alliance with the Concord District Nursing Association. Every nurse prior to her graduation must have served a certain number of weeks in district nursing under the direction of a head nurse employed by the association. In this way the nurses of the State Hospital acquire a fine drill in house-to-house nursing outside the hospital, which, with their experience in the wards, broadens and perfects their education.

During the summer months the open-air treatment of insanity has been pushed to the furthest limit possible consistent with the physical condition of the patients. Tuberculosis patients were cared for in a tent, and all whose physical condition admitted were placed out on the grounds. Out of a population of 470, as many as 440 were out of doors. The results of such treatment were eminently satisfactory, both in promoting increased nutrition and in quieting such as were restless and excitable.

Soldiers’ Home.—The inmates of the home number from 80 to 100 through the year. Up-

STATE LIBRARY, CONCORD, NEW HAMPSHIRE.

ward of 500 soldiers have resided there, and the deaths number 105. The cost of individual maintenance of members is about $210 a year.

The home is in the town of Tilton, 20 miles from the capital, and is located on a beautiful eminence half a mile from the village. Its original cost was $40,000, and it has been maintained at an annual expense to the State of about $10,000. Over and above the amounts received from the United States Government under general law. The Governor of the State is, ex officio, chairman of the Board of Managers; secretary, Col. Daniel Hall, of Dover; the commandant, Capt. Ervin H. Smith, of Peterborough.

Dartmouth College.—The total enrolment of students for the academic year 1902–’03 is 789—an increase of 21 over the preceding year. Of this number, New Hampshire has 220; Massachusetts, 284; and the remainder come from 25 different States and foreign lands.

State Agricultural College.—There was in the year some increase in the grade of work and the requirements for admission. The college is so related to the recently adopted courses of study in the State high schools that the graduates of these
schools can be admitted without examination. The courses of study in mechanics, in electrical, and in chemical engineering have been considerably improved. In more marked degree the agricultural course has been strengthened. A special building for agriculture is being erected at an expense of $30,000. It will be ready for occupancy early in 1903.

Normal School.—This year the enrolment was 140, an advance of 40 per cent. over the previous year. The model school is well equipped, and is under the supervision of 2 teachers who are specialists in their respective lines. It has a liberal course of study, including nature study, art work, and manual training, and is thoroughly up to date. In the Normal School the work in each subject has been placed under the direction of heads of departments. Room and apparatus have been provided for thorough physical training, partly through the agency of the Students' Athletic Association. The school has a well-chosen library of 5,000 volumes, while a special reference library of text-books has just been established. The principal of the school is Mr. J. E. Klock.

Board of Health.—The most important work of the Board of State Laboratory of Hygiene. In its chemical department much attention has been given to the analysis of public and private water-supplies with excellent results. New methods have been discovered, and its causes eliminated. In its 2 bacteriological departments many examinations have been made for the determination of tuberculous, typhoid fever, dysentery, malaria, etc., which have proved to be of great value. Smallpox has existed in various parts of the State for two years, and the board has been indefatigable, and very successful, in its efforts to stamp it out.

The State Board of Health also constitutes the State Board of Commissioners of Lunacy, having authority to commit worthy indigent patients to the State Hospital for treatment at the expense of the State.

Charities and Corrections.—The Legislature of 1901 provided for a secretary and clerk outside the membership of the board; for the return of accurate statistics of all pauper relief given by towns throughout the State; that all the county reception boards be furnished with certain statistics as to the insane, feeble-minded, and prisoners, to be returned to the board; for an indeterminate sentence of prisoners; and that the State school for the feeble-minded, appropriating $30,000 therewith to establish it. This school has been located at Laconia, and will be opened Jan. 1, 1903, with about 60 pupils. By this action of the Legislature the Board of Charities was put upon a level with the other State departments, and its scope largely increased.

Old Home Week.—This distinctively New Hampshire festival was celebrated with more than the usual enthusiasm by 100 towns and cities. It brought back to the State thousands of her long-absent children, and was an interesting augmentation of the bulk of the summer travel. New roads through the mountain passes, under the patronage of the State, and new and magnificent hotels are meeting the visitors at every turn.

Antisaloon League.—The principal officers of the league for 1902 are: President, Hon. D. H. Goodell; superintendent, Rev. J. H. Robbins. The business of the league has been prosecuted with the greatest success. The question of a change of the State policy from absolute prohibition to license or local option came prominently before the people at the biennial election in November, and will be brought before the Legislature for consideration at its coming winter session. Some of the purposes of the league are to insure united action in the churches in the cause of temperance; to enforce all temperance laws; to secure advanced additional prohibition legislation; and to circulate temperance literature freely among the people.

Bureau of Labor.—The biennial report of this department for 1901-02 was issued in December. It reports unusual activity and prosperity in all departments of business, and gives some interesting and exhaustive statistics concerning the foremost industries of the State. In manufactures, for 1891, the cotton interest leads, with manufactured goods to the value of $29,143,600; with boots and shoes a close second, $22,988,159. The woolen, lumber, paper, and granite industries have made remarkable strides, the business of each running into the millions, while many other industries are reported as equally prosperous. The New Hampshire creameries, in quality of goods manufactured, lead the whole country, as shown by the shipments of a half a million cases, in 1893, and at Buffalo. The number of creameries reported is 50.

State Grange.—The Grange of New Hampshire is Gov.-elect Nahum J. Bachelder. Its present membership is 25,109, and it has held 6,000 meetings during the year. Its receipts have been $8,858,48, and its surplus for the year is $68,900. It encourages the observance of Arbor Day by offering prizes to subordinate granges for the planting of shade-trees by the country roadsides, the number of such trees, 50,000 for fourteen years the Grange Mutual Fire-Insurance Company has been maintained, furnishing insurance exclusively to its members. Property upon which policies are now in force exceeds $6,000,000. All losses and expenses have been promptly met, and the saving to the insured in premiums since the inception of the company has exceeded $100,000, as compared with the cost of insurance for the same amount on the same property in stock companies.

There are more than 3,000 summer hotels and boarding-houses in the State, including the most costly and elegant summer hostelry in the United States, and they accommodate 75,000 guests. About 1,200 (abandoned?) farms have been purchased, chased by wealthy students for summer homes, who have expended nearly $3,000,000 on their purchases in addition to the purchase price.

Political.—The whole number of votes cast for Governor at the November election was 79,162, as follows: Nahum J. Bachelder, Republican, 42,115; Henry F. Hollis, Democrat, 33,844; John C. Berry, Prohibition, 1,621; Michael H. O'Neill, Socialist, 1,057; scattering, 825. Republican plurality, 8,271.

The new Legislature consists of 24 Senators — 21 Republicans and 3 Democrats; House of Representatives, 393 members—236 Republicans and 137 Democrats.

The Governor's Council consists of 5 members, all Republicans.

Constitutional Convention.—The Constitution of New Hampshire has remained unchanged since 1889. The General Court (the Legislature), by an act approved March 21, 1901, provided for the election, on Nov. 4, 1902, of delegates to a constitutional convention, to assemble at Concord in the following December. The convention assembled as provided, and finally submitted to the people for ratification 9 amendments to the Constitution, as follow:

1. For the prohibition of trusts.
2. For the extension of the suffrage to women.
3. For a tax on inheritances and franchises.
4. For an educational qualification of the suffrage.
5. To strike the word "Protestant" from the bill of rights.
6. To place representation in the Legislature upon a new basis.
7. To establish voting precincts.
8. To extend the criminal jurisdiction of police courts.
9. To require examination of commissioned officers in the militia.

Statute to Commodore Perkins.—A noble and elaborate monument to Commodore George Hamilton Perkins, a son of New Hampshire, given to the State by his widow and his daughter (Mrs. Isabella Anderson), was unveiled in the State-House grounds, at Concord, April 25, the fortieth anniversary of Farragut’s battle of New Orleans. The exercises were attended by many distinguished naval and military men and civilians. The oration was by President William Jewett Tucker of Dartmouth College. The monument stands on North State Street, in the rear of the State-House and near the Legislature building. The statue is work of Daniel C. French, of New York city, a native of Chestor, N. H. The general structure is of New Hampshire granite, while the statue is of Tennessee marble. The statue (bronze), which stands in the niche, is 74 feet in height. Elaborate panels and historical inscriptions occupy appropriate places on the monument. Its cost was about $49,000.

NEW JERSEY, a Middle Atlantic State, one of the original thirteen, ratified the Constitution Dec. 18, 1787. Area, 7,815 square miles. The population, according to each decennial census, was 184,139 in 1790; 211,149 in 1800; 245,562 in 1810; 277,426 in 1820; 320,823 in 1830; 373,306 in 1840; 489,555 in 1850; 672,093 in 1860; 900,006 in 1870; 1,131,116 in 1880; 1,444,923 in 1890; and 1,983,009 in 1900. Capital, Trenton.

Government.—The State officers in 1902 were: Governor, Franklin Murphy; Secretary of State, George Wurtz; Comptroller, William S. Hancock; Attorney-General, Samuel H. Grey; Adjutant-General, Alexander C. Oliphant; Superintendent of Public Instruction, Charles J. Baxter; Treasurer, Charles D. Richardson; and, Insurance, William Bettle—all Republicans. Chief Justice of the Supreme Court, William S. Gummere; Associate Justices, Gilbert Collins, J. Franklin Fort, John B. McMillan, Charles W. Syckel, Charles G. Garrison, Abram Q. Garretson, and Charles E. Hendrickson; Court of Errors and Appeals; Judges John W. Bogart, Gottfried Krueger, Frederic Adams, William H. Vredenburgh, Peter V. Voorhees, and Garret D. W. Vroom. Chancellor, William J. Magie.

A general election is held annually in November. The only elective State officer is the Governor, whose term is three years. The others, including the Justices of the Supreme Court and the judges of the Court of Errors and Appeals, are appointed by the Governor, excepting the Treasurer and the Comptroller, who are appointed by the Legislature, which meets every year in January, the sessions not being limited.

Finances.—At the close of the fiscal year ending Oct. 31 the State fund was $2,933,418.26; the school fund (including the school tax for 1901, $1,488,806.73), $5,401,789.42; local taxation on railroads, $1,460,974; allotment of taxes on railroad and canal property to the taxing districts, $200,461.93; Agricultural College fund, $110,000; total, $9,112,454.06. The sinking fund of the State consisted of the following assets: Loans on bonds and mortgages, $91,783.34; real estate, $77,974.20; due from Thomas Crozier decree, $1,000; balance in bank, Oct. 31, $1,792.52; total, $172,565.03.

Valuations.—The State Board of Taxation, in its annual report, Oct. 31, placed the total valuation of taxable real and personal property for 1902, as returned by the county boards of assessors, at $852,560,840, an increase of $41,141,798 over the ratables of 1901. Of this total of ratables, $827,500,112 represents real estate, and $153,233,028 personal property.

The amount of exempt property for 1901 was $107,318,912. This, with the $67,474,442 of exemptions allowed veterans, firemen, and militia, makes a total increase of $63,062,048 over the exemptions of 1901. Of the amount of exempt property, $15,261,000 is for the exemption of public schools, $7,792,923 for other school property, $40,922,004 for public property, $35,171,711 for church and charitable property, and $4,250,290 for cemeteries and graveyards. The deductions for debts in the State amount to $21,756,071, compared with $26,006,779 in 1901.

The returns of the ratables in the counties for 1902 show a net increase of $34,141,798 over the valuations of 1901. All the counties show an increase except Burlington and Hunterdon.

The valuations in each county for 1902, compared with the valuations of personal property, show that the assessed value of real estate represents 84.4 per cent. of the whole.

The total valuation of real estate was $827,500,112; of personal property, $153,233,028.

The number of taxable corporations has steadily increased from 619 in 1894 to 8,065 in 1902, this latter figure being exclusive of about 300 corporations subject to tax under the provisions of the Voorhees franchise act of 1900, and being also exclusive of the great number of corporations that are exempt from State tax by reason of being engaged in manufacturing or mining carried on in New Jersey. There are, in fact, about 15,000 corporations carried by the State Board of Assessors. As a result of the assessments levied by this board, there was paid into the State treasury on account of miscellaneous corporation taxes for 1902 the sum of $1,791,070.74, and the amount of taxes levied in previous years the further sum of $177,128.66, which is exclusive of $569,237.55 received by the Secretary of State for the year and paid into the treasury for incorporation and business licenses.

The total receipts from miscellaneous corporations in the fiscal year were $2,537,445.72, an increase over the last fiscal year of $34,563.95.

The aggregate assessed valuation of the railroad and canal property is given as $223,461,784, an increase of $3,537,205 over the previous year. The total tax levied against the railroad corporations by the State was $1,529,555.11, against $1,600,554.75 for the previous year. Of this total tax, $1,117,308.91 is for State uses and $410,946.20 for local uses.

Industries.—The preliminary census report on the manufacturing industries of New Jersey, issued Jan. 16, 1902, showed a total capital of $535,824,085, an increase of almost 101 per cent., and value of products in 1900 of $611,728,933, an increase of almost 73 per cent. There were 15,481 establishments, increase 68 per cent.; $41,381 wage-earners, increase 101 per cent.; total hired force, $41,981 wage-earners, increase 101 per cent.; total industries, $500,181 wages of $110,981, increase of almost 33 per cent. The miscellaneous expenses increased 131 per cent., to $42,640,143, and the cost of materials used was $353,941,870, an increase of 91 per cent.
Banking.—The report of the State Banking Commissioner to the United States Comptroller showed the condition of the trust companies, savings-banks, and State banks for the quarter ending Sept. 15. There were 51 trust companies, 17 State banks, and 27 savings-banks. The condition of the trust companies was shown to have been as follows: Resources, $99,995,256.74; liabilities, $72,463,715.22. Notes and bills rediscounted, $74,300; bills payable, $850,000; bonds outstanding, $1,150,000; other liabilities, $573,600; total, $99,995,256.74. The statement of the State banks showed the following condition: Resources, $11,458,437.17; liabilities, $2,526,437.17; bills payable, $25,000; other liabilities, 4,600; total, $11,658,437.17. The condition of the 27 savings-banks was reported as follows: Resources and assets, $79,621,110.12; liabilities, capital stock paid in, $500,000; amount due depositors, $70,107,420.40; liabilities other than those stated, $228,442.29; surplus, $3,731,249.93; total, $79,621,110.12.

Distribution of Products.—The chief of the New Jersey Bureau of Statistics compiled in December a statement showing the distribution of the product of the large manufacturing industries of the State, and the output of the first compilation of the kind made, and has to do with the distribution to capital account. The report of the bureau contains a classified list of 62 distinct industries, and the industries given, and the firms reporting have a combined capital of $225,000,000. In felt hats the industry product is $4,014,197, which is $1,530,32 per $1,000 of capital employed. The amount of the industry product devoted to profit and minor expenses is $2,510,045. The number of firms reporting was 48. The percentage of industry product devoted to profit and minor expenses was only $32.88. In shoe manufacturing 41 firms reported, yet only $2,152,079 in capital is employed. The ratio of the industry product devoted to profit and minor expenses is 4.37 per cent. In iron the percentage of industry product devoted to profit and minor expenses is less than one-third. In jewelry it is 0.23 per cent. Silk manufacturing is the most important industry included. The product is $14,296,518, and the amount per $1,000 of capital employed is $705.42. The amount of capital is $20,252,319, while the ratio of industry product devoted to profit and minor expenses is 47.74 per cent.

Factories.—The State Factory Inspector submitted his annual report in December. It shows that in the last fiscal year the department had more than 900 schooners and participating bakeshops, as a result of which 187 children were discharged. It sets forth that in the year 19 persons were killed and 68 injured because of accidents in factories and mines. The general conditions of all industries inspected was good, although some of the bakeshops were reported to be very dirty, especially in Jersey City and Paterson. The year was one of unprecedented prosperity, and there was greater industrial activity than ever. The consequent increased demand for labor rendered special activity necessary for enforcement of the child-labor laws. Prosecutions of offenders were instituted in the local courts, and the penalties provided by law were imposed.

Agriculture.—The report of the Secretary of the State Board of Agriculture, filed in November, shows that the year 1902 was one of the most prosperous in the agricultural history of the State. The white-potato crop exceeded all previous records, and the yield of large potatoes was unusually large. The potato-farmer was far in excess of any previous year. The report says that "for so small a State, and with so much territory taken up with truck-farming and market-gardening, the crops of grain have been remarkable. The increase in the production of corn and in the acreage devoted to its growing is indicative of an increase in the dairy business. The indication of increased meat consumption, when coupled with the fact that during the past year 17,127 cows were brought into New Jersey from other States, a number largely in excess of other years, confirms the conclusion. The farming interests of the State represent a business with a capital of $105,359,106. The only short crop was of hay, and this shortage is attributed to lack of rain. The yield is about 10,000 tons less than in 1901.

Of the various crops, the report says that oats were better than for some years past. Rye, an average crop. The acreage of buckwheat is being reduced each year. The production of sweet potatoes is being extended in the lighter soils of the southern part of the State. The crop is large and valuable.

The report places the total value of the farms of the State for 1902 at $43,528,671. It gives the number of farms as 34,650, and the improved land, capable of profitable cultivation, is 1,977,942 acres. It says that land devoted to food or fertilizers $2,165,320 worth. Although farm-laborers seem hard to obtain, there is expended for this item $8,261,000. The stock comprising the flocks and herds, horses, mules, and other animals, is valued at $17,613,630.

Ceramics.—The Legislature at its last session passed an act providing for the establishment of a course in practical and scientific instruction in the art of clay-working and ceramics in the State Agricultural College, and appropriated $12,000 for the organization and equipment of the department for the current year, and $2,500 annually for its maintenance. The report of the Board of Visitors, issued in December, spoke very favorably of its progress. A laboratory, thoroughly equipped, had been erected and the work of instruction in ceramics is begun. The trustees received a gift of $50,000 from Ralph Voorhees, a resident of New Jersey, for a library building, which is to be erected immediately.

Education.—The report of the School Superintendent, submitted in December, gives the statistics of the high schools of the State. As this was the first time that the data were collected, no comparison could be made with previous records. Of the 394 school districts in the State, 147 report full or partial high-school courses. In these 147 high schools there were 20,980 pupils, 5,159 boys and 7,821 girls, or 3.8 per cent. of the entire school enrolment. In the 247 districts that have not established high-school courses there were 1,504 pupils, which were doing high-school work. In the 147 high-school districts there were 603 teachers. They received $511,291,18. The total cost of maintaining these schools was $611,312,94. Sixty-nine schools maintain courses of study covering four years' work. Of these, 55 are on the approved list, which means that graduates of these schools are admitted to the State Normal School without examination.

The State Librarian, in his annual report made in December, noted a great falling off of interest in the traveling-library system. At the close of the fiscal year 23 of the 62 traveling libraries were in use, against 42 in the preceding year. Twenty-two towns discontinued their use, while only 4 new towns took it up.

The educational exhibit from New Jersey at the Charleston Exposition won both the gold and silver medals. The New Jersey Normal and
Model School, which had a separate exhibit, won a gold medal, as did the New Jersey School for the Deaf. The insect exhibit won a gold medal; it was said to be the finest collection of wood- and grain-destroying insects in the country. The State Museum won the whole set of medals—gold, silver, and bronze.

The Registrar of Princeton University gave out the report of the entrance examinations for the university on June 25 as 229 for the academic course and 212 for the scientific, against 247 academic and 268 scientific the previous year. The falling off was principally from the Middle States. The entrance rolls showed that New York city leads. Dr. Francis L. Patton resigned the presidency of the university July 31, and was succeeded, Aug. 1, by Woodrow Wilson, LL. D. Dr. Patton was elected president of Princeton Theological Seminary, Oct. 14. Three summer schools were in operation at the university during the summer.

Prisons.—In the annual report of the Board of Prison Inspectors it was stated that the striped-dashing, lock-step, and short-hair system should be abolished and recommended that a separate institution for women should be built on the site of the present State arsenal adjoining the prison. The inspection of the women of the prison, 20 of the number being white and 11 colored. It appeared from the supervisor's report, Nov. 1, that at the beginning of the fiscal year ending Oct. 31 the number of prisoners confined in the institution was 1,168. During the year 516 of these were removed. The number received in the year was 431, so that the number remaining Nov. 1 was 1,021, or 85 fewer than at the beginning of the year. The terms of 407 prisoners expired, 5 were discharged by the United States commissioner, 1 was pardoned by the President, 15 were removed to the insane asylum, 6 were pardoned by the Board of Pardons, and 61 were paroled.

Charities and Corrections.—According to the report of the Trustees for the State Home for Girls for the year ending Oct. 31, the number of girls committed to the home in the year was 24. The number sent out was 29, most of whom were well in good homes. The number of girls in the institution at the date of the last annual report was 119. At present there are 114. The addition of a new cottage has proved to be of great advantage, helping more and better work to be done. All departments are more successful than in former years. At a meeting of the treatment committee was held, and was attended by all members.

The health of the inmates has been good.

According to the superintendent's report for the fiscal year ending Oct. 31, the Home for Boys cared for 500 in the year. It received 160, and discharged 163. Boys were received from every county in the State, with the exception of 3. The health of the boys was very good. There were but 2 deaths. There seemed to be a more contented and happier feeling among them, due largely to the policy of making the boys understand that their release depended entirely upon their own behavior and individual merit, and not upon any outside influences. The blacksmith, carpenter, and mason shops were very successful, all these departments being in every way on a par with the others, and all the boys very much interested in their work. The results from the garden and factory were also satisfactory; there was an abundance of fruit and melons during the season, and this contributed largely to the unusually healthy condition of the institution.

The Governor, approved, in October, the erection of the Tuberculosis Sanitarium on Mount Kipp, an elevation of 954 feet in the range of mountains near Glen Gardner. The site is unequaled in the State for this special purpose. It was decided to build one large central building for the patients. A macadamized road from Glen Gardner was begun.

The annual report of the Board of Managers of the Insane Asylum, submitted in December, reiterated the recommendation for a separate asylum for the convict and criminal insane, and deprecated the failure of the State to provide for the removal of the epileptics from the insane Asylum. It called attention to the fact that in several counties the places designated as "asylums," although receiving State aid, are without any organized care, adequate medical supervision or proper attendants or nurses. The total population of the 6 county asylums was 553, of whom 292 were males and 273 were females. The report referred to the overcrowded condition of the State Hospital in Trenton, which contained 1,137 patients, although the present buildings were designed for only 840. The total expenditure in the year was $236,674.90, and the per capita expense per week for maintenance was about $380.

The Epileptic Village.—The annual report of the Board of Managers of the Epileptic Village shows that, although the place is a model one in many respects, there is still much to be done. The village was opened in 1898, and since then 9 of the patients have been cured, 4 transferred to other institutions, 4 removed by relatives, 2 died, and 3 have elapsed. In the past year 25 male and 29 female epileptics were admitted, and the total population at this time is 75.

It is estimated that there is 1 epileptic to each 500 of the population. A conservative estimate would place the total number at more than 2,500. There is a large number of epileptics confined in the hospitals for the insane and other institutions throughout the State that properly belong in the village.

Forestry.—Forest Bulletin No. 11, issued by the Geological Survey, tells of the first extensive, systematic, and successful experiment in forest cultivation made in the State, after eight years' practical work. The forest was established on照 reporting Ramapo river. The forest was divided into 10 parts, of 300 acres each, and every year one of these divisions was taken in hand. The result of the treatment has been successful, both from a sylvicultural and a financial point of view, and is described at length in the bulletin.

New Jersey has 3,324 square miles of forest area that could be subjected to this treatment. The forests of the State suffered great damage from fire in 1902.

Interstate Fair.—The Interstate Fair closed on Thursday, Oct. 4. Notwithstanding the bad weather, the fair was very successful. More than 89,000 persons attended it. The profits were less than in 1901, but there was a considerable remainder after paying all expenses. The exhibition of cattle, sheep, and swine exceeded that of former years. At a meeting of the Board of Directors of the association, Dec. 10, it was decided to pay a dividend of 7 per cent, on $20,000 worth of preferred stock, and 2 per cent. on $115,000 worth of common stock.

Disasters.—On March 3 a flood at Paterson placed the list of the boys lying in the city under water. The East Jersey Water Company was damaged to the extent of $1,500,000, and the entire damage amounted to several millions. Only two lives were lost in the city, but several persons per-
ished at other points of Passaic river. The bridge from Passaic to Dundee island was destroyed, and 6 persons who were trying to get floating lumber were swept away and drowned.

The worst fire in the history of Atlantic City occurred on April 3, in which 11 of the principal hotels were burned to the ground. The direct property loss considerably exceeded $1,000,000.

On March 19 the Phenix line pier, in Hoboken, and the steamer British Queen, besides a dozen lighters and barges, were burned. Two men were killed and 6 were injured. About $2,500,000 worth of property was destroyed. The fire was due to defective electric-light wires.

A fire that started at midnight in Paterson, Feb. 8, burned unchecked for eighteen hours, and destroyed the heart of the business section, with a loss of property values at $18,000,000, including the City Hall, 5 bank buildings, the public library containing 200,000 volumes, 5 churches, 2 hotels, 2 schoolhouses, police headquarters, 1 fire-engine house, 1 theater, the Hamilton Club, and more than 40 stores, office buildings, and public halls.

Legislative Session.—There were 295 bills passed by the Legislature. Of these, the Governor signed and vetoed 15. Among the more important acts were these:

- Providing for the study of ceramics in the State Agricultural College.
- Allowing the State Board of Education $45,000 for a manual training-school for colored youths.
- The antianarchist bill, which forbids any attempt to destroy Government by writing or speech, or to be a member of any organization for this purpose. The penalty is $2,000 fine, or fifteen years' imprisonment, or both. Any person that assails high Government officials or encourages such assault shall be put to death or imprisoned for life.
- An act appropriating $20,000 for a new dormitory at the Old Soldiers' Home at Kearny.
- A general school act, which allows school boards to condemn land for school purposes, excludes teachers who have not been vaccinated, and renders parents and guardians liable to a fine for keeping their children from school for ninety days, if they fail to compel their children to attend school.
- Appropriating $250,000 for Trenton armory.
- Creating a State Board of Agriculture, and allowing only licensed architects to practise in the State.
- Making it illegal to catch any food fish for the purpose of manufacturing therefrom any oil or fertilizing food.
- Authorizing cities to borrow up to $100,000 on bonds for purposes for which taxation may be raised.
- Amending the corporation act, so that any stockholder who is dissatisfied with a merger may have his stock appraised.
- Providing for the establishment of a State sanatorium for the treatment of tuberculous diseases.
- Requiring that children who become a public charge shall be placed in care of some family of the same religious faith as that of the parents, or of an institution of that kind.
- Limiting the money to be raised by cities for city purposes to $2 on every $100 assessed valuation.
- Appropriating $10,000 for a monument to the New Jersey men who fell at Antietam.

Political.—The election for members of the Legislature, in November, resulted in the return of 14 Republicans and 7 Democrats to the Senate, and of 38 Republicans and 22 Democrats to the Assembly. The Republicans elected 7 Congressmen; the Democrats, 3.

NEW MEXICO, a Territory of the United States, organized Sept. 9, 1850; area, 122,580 square miles. The population, according to each decennial census, was 61,547 in 1850; 93,516 in 1860; 91,874 in 1870; 119,565 in 1880; 153,593 in 1890; and 163,910 in 1900. Indians not taxed in 1890, 12,837. Capital, Santa Fe.

Government.—The Territorial officers in 1902 were: Governor, Miguel A. Otero; Secretary, J. W. Raynolds; Treasurer, J. H. Vaughn; Auditor, W. G. Sargent; Adjutant-General, William H. Whitehead; Attorney-General, E. L. Barlett; Superintendent of Education, J. Francisco Chavez; Commissioner of Public Lands, A. A. Keen; Coal-Oil Inspector, John S. Clark; Public Printer, James D. Hughes—all Republicans. Supreme Court—Chief Justice, William J. Mills; Associate Justices, John R. McKie, Benjamin S. Baker, Frank W. Parker, and Daniel H. McMillan; Clerk, José D. Serna—all Republicans.

The Legislature meets biennially, in January of the odd-numbered years. The members are elected at the preceding general election in November. The Governor and Secretary are appointed by the President, and hold at his pleasure. The judges of the Supreme and District Courts are also appointed by the President, and hold under the same tenure. All other general officers of the Territory are appointed by the Governor, with the advice and consent of the Council, which is the upper branch of the Territorial Legislature, and consists of 12 members, elected by the people of the respective county districts. The only officer elected by the people of the Territory at large is the Delegate in Congress.

The Legislature elected in November, 1902, consists of 12 Republicans and no Democrats in the Council, and 20 Republicans, 3 Democrats, and 1 Independent in the House.

Political.—The Republican Convention to nominate a candidate for a delegate was held at Raton in October, and Bernard S. Rodey, then the sitting Delegate, was nominated for reelection. A platform was adopted, approving all the general principles of the Republican party, declaring strongly in favor of the admission of New Mexico, Arizona, and Oklahoma to the Union as States, and giving cordial support to the policies of the present national administration.

The Democratic Convention to nominate a candidate for delegate was held at Albuquerque in October, and nominated Harvey B. Ferguson, who was elected as delegate by the Democrats in 1896, and served one term. The platform declared in favor of the admission of the Territories to statehood, approved the general principles of the Democratic party, and vigorously condemned the expansion and tariff policies of the present national administration.

During the campaign the speakers and newspapers of both parties gave their attention chiefly to the statehood issue, all being equally earnest in its support, but the people of the Territory believed that the chances of admission would be better with a Republican Congress if the result of the election should show the existence of a predominant Republican sentiment in the Territory, and some believe that for that reason many Democrats voted for the Republican candidate as a matter of policy. How strong a hold this feeling had upon the voters of the Territory may be judged.
by the fact that, while the normal Republican majority of New Mexico is not more than 3,000, Mr. Rodey was elected by a majority of almost 10,000 out of a total vote of only a little more than 35,000, and over a man who was personally very popular.

**Finances.**—The financial standing of the Territory is excellent. Careful and competent management of the public business has made it possible to accumulate a surplus in almost every fund in the treasury, enabling all obligations to be met promptly, leaving a handsome surplus to be used in the reduction of the interest-bearing debt.

The bonded debt of the Territory outstanding at the beginning of the fiscal year, June 1, 1902, was $1,125,300. Since that time sinking-funds have been accumulated sufficient for the redemption of the bonded debt in the sum of $89,246.26, leaving the net bonded indebtedness at this time $1,035,053.74. For more than a year endeavors have been made by the Territory to buy unsecured bonds without success. Many orders have been filed to take up any bonds the Territory might issue, and there has been a wide demand for court and other securities. The Territorial tax levy for all purposes is 13.99 mills, which is below the average in the Western States.

**Banks.**—There are 14 national banks in the Territory, with an increase of one from last year. In addition there are 12 banks operating under the Territorial laws, a total of 26 banking institutions, having resources aggregating $10,000,000, with deposits of more than $7,600,000.

**New Corporations.**—The records of the Secretary's office show that the number of corporations chartered during the year was 205, and the aggregate capitalization was $100,489,000. Of the corporations so organized, 110 were for the purpose of mining, milling, and smelting, having a combined capitalization of $73,017,630; 63 were for manufacturing and other industrial pursuits, with a capitalization of $4,796,500; 6 were bank, building and loan associations, with a capital of $4,830,000; 6 were railway companies, with a capital of $15,825,000 to construct 354 miles of new road; 10 were irrigation and land-improvement companies, with a capitalization of $2,011,000; and 10 were benevolent and charitable associations. At the end of the year there were 41 in the number of industrial corporations chartered over the previous year, and 1902 shows a gain of 53 over 1901. Among the important industries that have been established during the year are the smelting of copper and lead ores, with a product valued at nearly $1,000,000; flour-milling, with a product valued at $551,108; the scouring of wool, with $77,875 as the receipts for last year's work. The flour and grit mills number about 20, and there are numerous fruit-canners, distilleries, and wineries in operation. There are 21 saw-mills in the Territory, with an invested capital of $160,786, employing 243 men, earning $80,851 a year, whose annual product is worth $290,527. There are 13 planing-mills, employing 41 persons, which turned out in 1902 valued at $290,000.

There were but few failures in any of the industrial lines, the only one worthy of note being that of the Cochiti Gold-Mining Company.

**Railroads.**—The era of railroad building in New Mexico, which began in 1901, continued with unabated vigor through 1902. About 350 miles of new road have been added to the total mileage in operation, and operations are in progress on other new lines, which cover in the aggregate more than 800 miles.

Nearly all the immigration during the past year has been to points along the line of the newly opened railway, running diagonally through the southeastern portion of the Territory. That section of New Mexico, a district a little larger than the State of Ohio, and embracing valuable natural resources, has remained practically unsettled because of the lack of communication with the outer world, but since the opening of the Rock Island Railroad last spring a large number of home-seekers have made homesteads upon the public lands, a score or more of new villages have sprung up in the district, and 23 new post-offices have been established.

**Lands.**—A little more than a million acres of the public domain in New Mexico was taken up by settlers under the United States land laws in 1902. Under the act of Congress of June 21, 1887, giving a limited area of the public lands to the Territory for the benefit of educational and other purposes, the United States Commission has selected, located, and entered for the centers of institutions $29,026.28 acres, including 7,683.25 acres of saline lands.

The United States Court of Private Land Claims practically completed in 1902 the duty assigned to it by the Congress under which it was created, and its term will expire by limitation in the summer of 1903. Since its organization this court has adjudicated the title to tracts of land in this Territory aggregating a little more than 26,000,000 acres, all of which, except about 1,000,000 acres, was found to be public land, and was restored to the public domain, thus adding 25,000,000 acres (the best lands in the Territory) to the area that will some time be open to entry under the United States land laws. At present all the lands of this great sum total are out of market—that is, they have not been surveyed and platted, and therefore can not be entered by home-seekers.

Immediately after the organization of this court one of the judges spent a year in Spain, and another spent an equal length of time in Mexico, examining the archives of those countries from the time the first grant of land in this Territory was made by Spain down to the time the country was acquired by the United States, and during their absence the other 3 members employed the time gathering testimony and examining the early records of the Mexican and Spanish governments, and when the court began to adjudicate the cases coming before it, its 5 members undoubtedly possessed a more comprehensive and accurate knowledge of the history and character of the grants in New Mexico than any other 5 men in the world, and a good idea of the thoroughness and correctness with which they did their work is to be gained from the fact that none of their decisions has been reversed by the Supreme Court.

A large number of the pretended grants were found to be spurious and were thrown out in their entirety; and nearly all those that had some foundation in law or fact to rest upon had been so egregiously inflated by having their boundaries extended from time to time at the will of the grantee that some of them had come to claim a greater number of square miles than they had originally of acres.

**Education.**—The educational interests of New Mexico made gratifying progress in 1902. The school census for the year shows the school population to be 62,864; increase over the previous year, 9,856, or 18.6 per cent. The enrolment of pupils in all schools in progress is 21,904; an increase over last year's enrollment of 13.8 per cent. The attendance, 29,825; number of schools, 725; teachers employed, 1,046; number of higher Territorial institutions, 7; city high schools, 7; kindergartens, 4; private schools, 6. The average number
of months taught in all schools, 7,35. The total paid to teachers was $412,340.28; annual receipts, $88,018.70; and the total was $51,608.22; total value of school property, $2,071,702.25.

There was expended in improvements on public-school property $242,617.60. The average monthly salary of all teachers was $34.91. The average annual cost of educating pupils in all schools was $17.07.

In 1902 the United States Government expended approximately $225,000 for educational work among the Indians. Thirty-three schools were maintained, and there was an average daily attendance of 2,114. The larger number of these institutions are in the Dakotas, but some are in the plains and the mountains of the South. The patrons are manual training-schools and boarding-schools, and they supply the pupils with clothing as well as board and lodging.

The annual meeting of the Teachers' Association of the Territory was held at Las Vegas on Dec. 22 and 23, and was well attended. The reports from the various districts were all very encouraging and went to show that the cause of popular education has been making gratifying progress.

Minerals.—A very large area of coal, iron, and oil-bearing lands has passed to private ownership during the year, and energy operations have been inaugurated for their development. Oil-drill rigs are at work in 5 or 6 different districts, with every promise that New Mexico will become a contributor of merchantable oil before many months. Several new and important coal camps are being established, and notable gold and copper discoveries have been made. The growth and development of the mining and coke industry gives employment to 2,000 persons, and the machinery and operating plants are valued at $175,000. The net output for the coal-mines for the year 1902 was valued at the mines at $1,600,988.90. The coke production for the year amounted to 25,012 tons, valued at $38,207. Of gold, silver, lead, and copper, the Territorial production for the year 1902 was: gold, $19,000; silver, $7,000,000; and the turquoise mined in New Mexico is put by the same authority at about $138,000.

Irrigation.—Some progress was made in the construction of irrigation works, though comparatively little, for the reason that practically all the natural openings for the construction of successful irrigation systems on a small scale have already been utilized, and whatever is done hereafter to increase the area of irrigated land must be done by the construction of works too expensive and costly to be compensated by individual effort of such magnitude, as the building of dams to conserve the flood waters of the streams and the construction of reservoirs to store the storm waters of the country, especially the mountainous regions. The total length of irrigation ditches in operation in the Territory is estimated by the Governor, in his annual report for the current year, at a little more than 3,000 miles, and he places the cost at $6,900,000.

Livestock.—The live-stock interests of New Mexico were fairly successful during the year 1902. 133,835 head of cattle were inspected for removal from the Territory. One hundred and sixty head of beef-raisers from such shipments were about $3,000,000. There were 1,246,237 head of cattle on the range. The wool-clip for the year was $6,000,000. The sheep-clip in the spring was about 1,000,000 head, and there are on the ranges of New Mexico nearly 5,000,000 head of sheep. The shipments for the year were 408,908 head. TheAngora goat industry is enjoying great prosperity. At a conservatisme, the live stock on the ranges of New Mexico has a value of $40,000,000. The weather during the summer was very dry, there was good feed on the range at the beginning of winter, and the season, up to the close of the year, was mild and comparatively free from snow except in the mountains.

Invalids.—A much larger number of invalids than usual came to New Mexico this year as a health resort, especially persons afflicted with diseases of the respiratory organs. To such an extent has this class of immigration increased that facilities for the special accommodation of such persons are being provided in various parts of the Territory. The Santa Fe Railway Company has expended $100,000 on a hotel of this kind at Albuquerque, which was opened this year.

The Sisters of Charity opened a large sanitarium at Albuquerque, with a view to giving special care to persons of this class; but this is properly a hospital rather than a hotel.

In the summer an enterprising hotel-keeper put up at Santa Fe what he called a "tent city" for the entertainment of guests of this class. An eligible site was selected near the town, and was regularly laid off in streets, but instead of houses there were rows of tents on either side, about 100 feet apart, furnished with all the necessary comforts for camping out, while a central hotel tent served meals to such as did not prefer to do their own cooking.

There are also hotels for the special accommodation of health seekers at Las Cruces, Alamagordo, Deming, Silver City, and other places in the Territory.

The greater part of the immigration to New Mexico consists of health seekers, and fully 10 per cent. of the present population is composed of persons of this class.

NEW YORK. A Middle State, one of the original thirteen, ratified the Constitution July 28, 1788; area, 47,620 square miles, excluding water surface. The population, according to each decennial census, was 1,990,598 in 1800; 959,049 in 1810; 1,372,111 in 1820; 1,918,908 in 1830; 2,428,921 in 1840; 3,097,394 in 1850; 3,360,726 in 1860; 4,082,595 in 1870; 5,082,871 in 1880; 7,997,853 in 1890; and 7,988,012 in 1900.

Capital, Albany.

Government.—The following were the State officers during the year: Governor, Benjamín B. Odell, Jr., Republican; Lieutenant-Governor, Timothy L. Woodruff; Secretary of State, John T. McDougal; Comptroller, Nathan L. Miller, who succeeded Erastus C. Knight, who resigned on Jan. 1 to become Mayor of Buffalo; Treasurer, John P. Jaeckel; Attorney-General, John C. Davies; State Engineer and Surveyor, Edward A. Bond; Superintendent of Public Instruction, Charles R. Skinner; Superintendent of Insurance, Francis Hendricks; Superintendent of Banking Department, Frederick K. Kilburn; Superintendent of State Prisons, Cornelius V. Collins; Superintendent of Public Works, Charles S. Boyd, who succeeded John N. Partridge, who resigned on Jan. 1 to become Police Commissioner in New York city; Commissioner of Labor Statistics, John McKee; Register of Deeds, O'Brien; Celora E. Martin; Edward T. Bartlett, Albert Haight, and Irving G. Vann, together with

UNITED STATES OF AMERICA. (NEW YORK.)
Edgar M. Cullen and William E. Werner, who are judges of the Supreme Court, sitting in the Court of Appeals.

The term of the State officers is two years. They are elected in November of even-numbered years. The Legislature meets every year in January.

**Finances.**—The State debt on Sept. 30 was $10, 075,000, and the sinking-fund $1,868,920.94, leaving the net debt, exclusive of interest (to be paid by the usual annual appropriation), $9,033,074.06. The appropriations made in 1901 for all purposes were $22,257,608.75, the lowest since 1890, a decrease of $1,600,000 over the figures of 1900. The principal receipts from indirect sources were as follow: Tax on corporations, exclusive of organization tax, $4,906,090.93; tax on transfers, $4, 084,606.87; liquor tax, $4,197,858.72. In the Corporation Tax Bureau there has been an increase in the last decade of 300 per cent. in the number of corporations taxed, and an increase of 147 per cent. in the amount collected. More than 6,000 corporations were taxed in 1901, the receipts from them having been nearly $5,000,000, and the cost of collecting them 0.6 per cent. Of the collections this year, $2,104,122.42 was received from savings-banks and trust companies under the new law. The receipts from taxable transfers were the greatest since the passage of the original act, with the exception of the preceding fiscal year, when about $250,000 more was collected. It will be remembered, however, that the year 1900 was remarkable for the large sales by one estate of nearly $2,000,000. The number of estates paying a tax in the past fiscal year was 3,059, and 368 of these were of non-resident decedents, whose estates paid a total tax of $595,594.06. The holdings of State lands in forest reserves amounted, on Oct. 1, to 1,372,000 acres. About $1,250,000 was expended for maintenance of the House of Refuge for Women, at Bedford, and the Hospital for the Care of Crippled and Deformed Children, at Tarrytown, during the first year that these institutions have come under the control of the Department of Charities and the control of the Commissioner of Charities and the control of the Commissioner of Charities.

The net tax of 1902 was the lowest in the history of the State, at $1,15 as a mill, practically a total abolition of the direct tax, for if there had not been a constitutional provision compelling the payment of the canal-debt interest out of the money raised by direct taxation there would have been sufficient money to pay that also and leave a surplus. Of this amount to be raised by the canal debt was $748,071, based on the present State valuations and taxing them at 1% as a mill.

**Valuation.**—The State assessors during the year were J. Edgar Leacyraft, George E. Priest, and Lester F. Stevens, each of whom receives a salary of $5,000. According to the report of the Board of Equalization, the tax levy for the year beginning Oct. 1, 1902, was as follows: Albany, $11,350; Allegany, $1,881; Broome, $4,206; Cattaraugus, $3,021; Cayuga, $4,205; Chautauqua, $4,095; Chemung, $3,253; Chenango, $2,362; Clinton, $1,196; Columbia, $1,355; Cortland, $1,292; Delaware, $1,833; Dutchess, $5,641; Erie, $39,244; Essex $1,275; Franklin, $1,337; Fulton, $1,889; Genesee, $2,995; Greene, $1,642; Hamilton, $376; Herkimer, $2,669; Jefferson, $4,393; Kings, $98, 613; Lewis, $1,220; Livingston, $3,316; Madison, $2,000; Monroe, $17,726; Montgomery, $3,222; Nassau, $3,554; New York, $378,138; Niagara, $10,180; Oneida, $2,337; Orange, $3,737; Ontario, $5,428; Orleans, $1,936; Oswego, $3,421; Otsego, $2,658; Putnam, $929; Queens, $13,387; Rensselaer, $9,156; Richmond, $3,814; Rockland, $1,822; St. Lawrence, $4,241; Saratoga, $3,292; Schenectady, $2,961; Schenectady, $1,398; Schuyler, $809; Seneca, $1,912; Steuben, $4,033; Suffolk, $5,063; Sullivan, $7,557; Tioga, $1,656; Tompkins, $2,946; Ulster, $3,551; Warren, $197; Washington, $3,219; Wayne, $3,258; Westchester, $19,567; Wyoming, $1,880; Yates, $1,533.

**Taxation.**—The Board of Tax Commissioners reported to the Legislature, on Jan. 20, that it is probable in the current year it may be unnecessary to prepare an equalization table, as it is anticipated that the constitutional requirements of a small exaction for canal bonded indebtedness may be satisfactorily provided for without any direct tax levy. This will permit the State Board, in its annual conferences with the local assessors, to pay more attention to equalization between tax districts and to give instruction to assessors as to local duties. In 1902 the Tax Commissioners made 3,953 separate valuations of special franchises, aggregating $298,017,770, an increase over the previous year of nearly $12,000,000. On these valuations 164 writs of certiorari were issued, against 221 writs in 1901 and 259 writs in 1900.

**Banks.**—The superintendent's report on the condition of savings-banks for the year ending June 30, 1902, shows that these institutions hold $1,051,060,186 for depositors, which is an increase of $64,967,278. The aggregate resources of the savings-banks is $1,167,682,337, and the amount of their surplus, figures on the market value of their stocks and bonds, is $151,540,560, which is less by $1,436,000 than in 1901. The decrease is believed to be due to a decrease in the estimated value of real estate, including banking houses. The surplus on the par value of stock and bonds is $92,737,000, an increase of $4,012,963. The number of open accounts increased by 99,671. The business of the banks shows a slight net loss in the ratio of growth. The total amount deposited was $290,840,359, which was an increase of $14,523,190. The amount withdrawn was $259,674,822, an increase of $16,503,185; but the net result shows a greater gain by $1,973,637. The/net bank of 830,000 has $1,139,211,409.27, an increase of $97,153,573. The total liabilities of the companies, excluding gross surplus of $159,718,603.04 and special funds of $148,283,050.71, are $1,671,692,010. The liabilities of the New York companies, as reported, are $934,947,000.42; companies of other States, $683,675,000.91. For New York companies the gross surplus (including $23,200,000 of capital) is $93,082,678.89; special funds, $1,111,488,928. The aggregate receipts of New York companies were $260,186,731.57; other States' companies, $177,745,723.40, making the gross receipts $437,535,469.07. The net excess of receipts over disbursements for 1901 was $150,754,425.1. The total premium receipts for 1900 were $316,822,293.11; for 1901, $343,186,353.11. The dividends of the year were $287,181,045.46. In 1901, 135,674,486.11 was paid for claims, $23,307,411 for lapsed and surrendered policies, $25,311,645 in dividends; $7,316,650 in dividends to stockholders, $49,970,852.49 for commissions, $1,123,385.91 for salaries and medical examiners' fees, and $27,906,665.88 for miscellaneous purposes. This classification shows that $183,3
528.88 was paid to policy-holders, while the cost of 1843-1888 was paid to 10,888 non-resident academic students.

Charities.—These are under the care of a board, consisting of votes of the charitable institutions under the supervision. According to the report, the number of beneficiaries in institutions subject to the inspection of the board on Oct. 1, 1902, was 60,904. The 14 State charitable institutions shelter 9,288 beneficiaries. The receipts of these institutions for the year ending Sept. 30, 1902, including balance on hand at the beginning of the year (60,577.72), amounted to $1,374,886.21. Their expenditures aggregated $1,265,756.01—$999,525.35 for maintenance, $244,015.86 for improvements—while $27,253.70 was returned to the State Treasurer pursuant to the provisions of the law. The private schools and institutions mainly supported by State appropriations and subject to the board's inspection care for 3,324 inmates. The receipts of these institutions for the year ending Sept. 30, 1902, were: From cash on hand, $57,057.15; from public sources, $691,216.42; from private sources, $312,254.06; total receipts, $1,069,527.63. Their expenditures aggregated $977,259.63. In the year two special inquiries were conducted. The first of these, begun in May, 1901, has recently been completed. This had reference to compliance with the public health law which relates to the better protection of the health of children in institutions. The report says improved compliance with the law may be confidently expected as the result of the inquiry. Another hotel investigation was in the matter of examining the records of long-term inmates supported at public expense in children's institutions under private control. Of the 4,107 long-term inmates it was shown that the great majority are eligible for family life, either through placing out or adoption or by restoration to parents, relatives, or friends.

Labor Statistics.—The charges of matters pertaining to labor are under the care of a commissioner, who receives a salary of $5,000. The present incumbent is J. H. Goff, who has been in the office since May 2, 1902. The number of places claiming hotel privileges has been reduced from 3,514 to 2,187. The prevalence of the hotel investigation is due to local moral authorities, who neglect or refuse to perform their duties, and therefore is not a cause for criticism of the law itself. Attention is called to the fact that persons holding liquor-tax certificates for short periods in the summer months at summer resorts, fairs, and picnics, and then surrendering them for rebates, do not pay a tax commensurate with the benefits received.

Education.—The Superintendent of Public Instruction is Charles R. Skinner, who receives a salary of $5,000, and whose term of office continues until April 6, 1904. In 1902 1,101,110 children attended public elementary schools during some portion of the year, and the number of schoolhouses and sites was 46,696,657. The secondary schools reported 91,583 pupils and a total property of $30,752,707.30. The institutions of higher learning, including professional, technical, and other special schools, reported 34,364 students, and a total net property of $82,931,757.53. In 1902 the common schools and allied interests cost $34,045,78.12 toward which the State appropriated $4,929,101.40, a decrease of $8,944.51 over 1901. The total cost of public schools and allied interests in 1902 increased over 1901 by $30,437.21, while the cost of secondary education in 1902 was $8,627,708.06, or $294,991.14 more than in 1901. The total cost of higher education in 1902 was $8,708,098.01, an increase of $1,132,433.32. In the maintenance of the University of the State of New York, the cost was increased $25,154.54. The total receipts other than appropriations were $71,847.08, as compared with $44,718.31 in 1901. Through the economies which have been practised, and through this increase of $27,128.77, the University was able to meet their most pressing needs. In 1902, excluding fees and unexpended balances, the increase in appropriations was $38,812.13. Reports from New York public high schools show that in 1901 843-1888 was paid to 10,888 non-resident academic students.
wear, 1,413; white goods, 675; artificial flowers, 870; feathers, 138; millinery, 450; hats and caps, 482; tin and ironware, 585. Of the total number of workers whose sex was stated, 27,409 were males and 42,761 females; in New York city the proportion of women was smaller—27,809, or 49.8 per cent. with the shutting down of the mines, for whereas May showed an increase in tonnage, in June there was a shrinkage from 522,980 tons in 1901, to 392,900 tons for June. There was to continue to be a falling off in coal shipments until November. There was a total decrease in six months of 460,109 tons. The settlement of the strike and the resumption of mining was directly reflected in shipments, the increase in coal shipments for November over the normal shipments of 1901 being 54,098 tons.

Railroads.—This department is cared for by three commissioners, each of whom serves five years and receives a salary of $8,000. Their annual report for 1901 shows the length of electric lines of railroad in New York State to have been increased by 117.53 miles; 34 new street-railroad companies were incorporated, with an aggregate length of proposed railroad of 539 miles, and steam-surface lines increased their mileage from 28,843.30 miles to 32,119.42. The main lines of railroad were increased from 15,664.23 to 17,518.05. The passengers carried in New York State were 123,561,749; in New York State was 123,561,749; the train mileage was 191,487,808. The percentage of operating expenses to gross earnings increased from 66.96 in 1892 to 69.52 in 1896 and back to 68.8 in 1901. The accidents to persons were 2,345, resulting in the death of 795 and 1,550 injured. Of passengers, 16 were killed and 375 injured. The Railroad Commission, in making the investigation of the conditions pertaining to the railroads, and made an examination of the collision in the Park Avenue Tunnel, that occurred on Jan. 8, by which many lives were lost and several persons injured. They reported that the New York Central Railroad was responsible for the disaster, finding that the company had been negligent, derelict, and unprogressive in failing to take measures to increase its terminal facilities at the Grand Central station. Also, the company had been negligent in failing to examine the report says that the requisitions for the products of the prisons were more numerous in 1902 than in any other year since the present industrial system was established. The volume of the output was $542,362,11, and the earnings $84,756,03. The superintendent provided employment for practically all the convicts in the prisons.

Canals.—The canals are under the charge of the Superintendent of Public Works, and the incumbent during the year was Charles S. Boyd. The failure of the Legislature to take favorable action on the canal bills left the condition of these waterways as they were a year ago. At a conference of the leaders of the dominant party in New York city in December it was agreed that the inner or Buffalo canal route should be recommended to the Legislature for 1903. It is estimated that the cost of improving the State waterways for a 9-foot 1,000-ton barge canal will be about $80,000,000. According to Superintendent Boyd's report, the opening of the canals in 1902 was earlier than in twenty years previous, and navigation was maintained until Dec. 4, largely for coal season. On the lengthened season, the total tons carried were 3,274,446, against 3,420,613 tons in 1901, a falling off of 146,167 tons. This loss is more than accounted for, as the report says, whereas there was an increase in way freight east of 84,975 tons, the total decrease in through freight was 210,219 tons, the loss being about equally divided between Eastern and Western shipments. The beginning and for good, 128. Of the number of licenses revoked for illegal manufacture was 763. In 322 instances it was necessary to attach the tag "tenant-made" to goods that were being made under conditions prescribed by the law.

Prisons.—In his annual report for the year ending Sept. 30, Cornelius V. Collins, Superintendent of Prisons, says, with reference to the State prisons in Sing Sing, Auburn, and Dannemora, the health of the convicts was excellent, mortality was low; the industries were pursued diligently and with much more favorable financial results than in the preceding year. The most distinctive change in the method of administration in the treatment of the imprisoned population was the adoption of the successful system of parole for convicts. The daily average number of men in the three prisons was 3,283, against 3,884 in 1901, an apparent decrease of 143, but counting as present the men on parole, there was an actual increase of 147. The separate figures showing the number of male convicts are: Auburn, 1,183; Clinton, 860; Sing Sing. The death-rate at Sing Sing was 0.58, at Auburn it was 0.86, at Clinton 1.60. The death-rate at Clinton is due to the fact that prisoners having consumption are transferred from other prisons to Clinton. Concerning the parole system, installed in October, 1901, the report says, of 575 initial applications for parole, 341 were granted. Of these, 48 were delinquent, 14 were returned to prison, 139 were discharged, and 154 paroles remained good at the end of the year. The results of the first year's operations of the parole law are very satisfactory, and seem to warrant the Legislature in extending the jurisdiction of the board so as to embrace all first-term prisoners now confined in the State prisons and the Eastern New York Reformatory, except the inferior life divisions, the report says that the requisitions for the products of the prisons were more numerous in 1902 than in any other year since the present industrial system was established. The volume of the output was $542,362,11, and the earnings $84,756,03. The superintendent provided employment for practically all the convicts in the prisons.
United States of America. (New York.)

On Sept. 19 there was unveiled a statue of heroic proportions on Culp's Hill, Gettysburg, to the memory of Henry W. Slocum, who commanded the right wing of the National troops in that battle. The statue was erected by the State of New York, of which Gen. Slocum was a native. The pedestal is of granite, and from base to top the monument measures 31 feet. The model was executed by Edward C. Potter. The unveiling of the statue formed the principal feature of the thirty-third reunion of the Society of the Army of the Potomac.

Louisiana Purchase Exhibition.—The Legislature authorized the appointment of a commission to take charge of the interests of the State in connection with the world's fair to be held in St. Louis in 1904, and appropriated $100,000 for its expenses. The following twelve-named persons were appointed by the Governor to serve: Edward H. Harriman, of Manhattan, President; William Berri, of Brooklyn; Edward L. Bill, of New Rochelle; James H. Callanan, of Schenectady; Cyrus E. Jones, of Jamestown; Mrs. Harriet T. Mack, of Buffalo; Frank S. McGraw, of Buffalo; Lewis Nixon, of Manhattan; Louis Stern, of Manhattan; John K. Stewart, of Amsterdam; John C. Woodbury, of Rochester; and John Young, of Ogdensburg. From Andrew Carnegie, these library payments will soon be considerably increased—in Amsterdam from $400 to $2,500, in Binghamton from $2,311 to $5,000, from $3,500 to $5,000, in Gloversville from $3,000 to $5,000, in Johnstown from $602.50 to $2,500, in Schenectady from $1,500 to $5,000, and in Yonkers from $2,000 to $5,000. When her Carnegie branches are built, will advance from $305,894.25 to $520,000. Ninety-nine library gifts are reported for this State, $124,780 in money, $715,000 for buildings, $23,350 volumes, and 2,927 prints, etc. Of the 24 gifts, amounting in value to $677,100, were from Andrew Carnegie.

Stony Point Park.—On June 16, with appropriate ceremonies, occurred the dedication of the Stony Point battlefield as a State reservation. This battle-field was purchased by the Legislature in 1897, and was placed in the custody of the American Scenic and Historic Preservation Society. The State has been supplemented later by a large grant of money, which was placed at the disposal of the society, to be expended under its supervision for improvement of the battlefield. The exercises included a parade, which was reviewed by Gov. Odell; then the flag that first floated on July 4, 1900, from the top of the Eiffel Tower during the Paris Exposition was unfurled. Speeches were delivered, and there were present the West Point Cadets, with their bands, a detachment of cavalry, a section of artillery, details from local organizations, and the National Guard.

Memorials.—On Sept. 1 there was erected in Watertown a memorial statue bearing the following inscription: "To Roswell Pettibone Flower, Born Aug. 7, 1836; died May 12, 1899; Representative in the Forty-seventh and Fifty-first Congresses, Governor of the State of New York, MDCCCLXXV. A granite slab leading from the entrance to the base of the pedestal contains the additional inscription: "Erected in Affectionate and Grateful Remembrance of His Noble Manhood, His Distinguished Public Service, and His Loyal Heart. " The statue was designed by Augustus St. Gaudens, and cost $25,-000, which amount was raised by popular subscription. The granite pedestal was the gift of the late Mrs. Emma Keep-Schey, of New York.

On Sept. 19 there was unveiled a statue of heroic proportions on Culp's Hill, Gettysburg, to the memory of Henry W. Slocum, who commanded the right wing of the National troops in that battle. The statue was erected by the State of New York, of which Gen. Slocum was a native. The pedestal is of granite, and from base to top the monument measures 31 feet. The model was executed by Edward C. Potter. The unveiling of the statue formed the principal feature of the thirty-third reunion of the Society of the Army of the Potomac.
the city ship-canal, and Peck Slip, and lodging with the Common Council the power to determine the extent of such improvement.

Authorizing an appropriation for the New York Zoological Society for the support of the New York Aquarium.

Reappropriating $550,000 for the Sixty-Fifth Regiment Armory at Buffalo.

Incorporating the Buffalo Zoological Garden.

Incorporating the city of Plattsburg.

Appropriating $21,050 for enlarging the Forty-seventh Regiment Armory.

Authorizing the selection of Ausable Chasm as a part of the Adirondack State Park.

Providing for the appointment of a commission of three to examine wild and forest lands in Suffolk County, with a view of locating thereon a public park.

Appropriating $500 for a survey of a proposed canal between Hempstead Bar and Jamaica Bay, Long Island.

Consolidating the Chautauqua Assembly, Chautauqua University, and the Chautauqua School of Theology under the title of the Chautauqua Institution.

Amending the university law relative to the establishment of public and free libraries.

Providing that clinical students admitted to preliminary State medical examination must be nineteen years of age.

Providing for a new apportionment of the State school money, so that each city shall receive $800; each village of a population of 5,000 employing a superintendent of schools, $800; and each union school district with a population of 5,000 employing a superintendent of schools, $800.

Placing the Knights of Columbus among the organizations recognized by the insurance laws.

Appropriating $16,000 for a State monument on the Vicksburg battle-field.

Appropriating $50,000 for the promotion of sugar-beet culture.

Providing for the appointment of 12 additional fish and game protectors.

Prohibiting the taking of shell-fish in the waters of the State by persons who have not been actual residents for at least six months.

Exempting from the charge of tax the black and gray squirrels in Rensselaer County fifteen days, from Aug. 31 to Sept. 15.

Providing that the laws prohibiting the possession of arms during certain seasons in this State shall apply to game taken outside of this State.

Permitting the use of other than brass baggage-checks by railroad corporations.

Providing that garbage crematories shall be operated with fuel that will dispose of the noxious gases arising from the consumption of garbage.

Making it a violation of law to throw rubbish on highways.

Prohibiting the sale of oleomargarine.

Providing for the management of the 14 State charitable institutions by the appointment of a fiscal supervisor, who shall receive $6,000 per annum, and who shall be the purchasing and fiscal agent for all the charitable institutions.

Authorizing the State Superintendent of Prisons to expend $3,000 a year in the maintenance of the bureau for the identification of criminals.

Imposing a penalty of not more than ten years' imprisonment or a fine of not less than $5,000, or both, on persons who advocate anarchistic doctrines by speech, writing, or otherwise; also making it a misdemeanor, punishable by a fine not exceeding $50, and each subsequent offense punishable by imprisonment or a fine, or both.

Defining the rights of minority stockholders in case of consolidation of corporations.

Providing for the appointment of a commissioner of juries in Kings County by the two county judges, who are Republican, and the two county judges of the Democratic party in Kings County. The commissioner is to serve five years at a salary of $6,000.

Providing that the State Racing Commission shall pass upon the certificates of incorporation of all racing associations which intend to conduct running races.

The Governor authorized the appointment of a commission to inquire into the delays and expenses in the administration of justices in the counties of New York and Kings in the First and Second Judicial Districts, and to suggest legislation thereon, the commission to consist of seven persons and to make a final report to the Governor for transmission to the Legislature on or before Dec. 31, 1902, and submit such bills or bills as it may deem necessary to carry its recommendations into effect.

Political.—The Republican State Convention was held in Saratoga Springs on Sept. 23-24, which was the 50th, and adopted the platform and nominated for State Chairman George W. Dunn, who nominated Lemuel E. Quigg as temporary chairman, while for permanent chairman Timothy E. Ellsworth was chosen. The platform said concerning roads and canals: The canals provide a channel for comm.
The election took place on Nov. 4, when the Republican candidates for Governor, Lieutenant-Governor, Secretary of State, Comptroller, Treasurer, and State Engineer and Surveyor were chosen by pluralities of 9,465 and 14,621. Fifty-seven Representatives to Congress were elected, of whom 20 were Republicans. Of the 17 Democrats chosen, 16 were from New York city and 1 from Buffalo. A new Legislature was then elected, consisting of 28 Republicans and 22 Democrats, and in the Assembly 80 Republicans and 61 Democrats, a gain of 7 Democrats in the Senate and 26 Democrats in the Assembly.

**NOTICE OF THE ELECTIONS.**

**GOVERNMENT.—**The following were the State officers in 1902: Governor, Charles B. Aycock; Lieutenant-Governor, W. W. Turner; Secretary of State, J. R. Grimis; Treasurer, R. R. Lacey; Auditor, B. F. Dixon; Attorney-General, R. D. Gilmer; Superintendent of Education, T. F. Toon, who died in February and was succeeded by James W. H. Green; Commissioner of Agriculture, S. L. Patterson; Commissioner of Insurance, James R. Young; Adjutant-General, B. S. Rosyter—all Democrats; Geologist, Joseph A. Holmes; Librarian, M. Q. Sherrill; Commissioner of Labor and Printing, H. B. Varner; Chemist, B. W. Kilgore; Corporation Commission, Franklin McNeill, Samuel L. Rogers, D. E. Abbott; Chief Justice of the Supreme Court, David M. Furches, Republican; Associate Justices, Robert M. Douglas, Republican, Walter Clark, Democrat, W. A. Montgomery, Democrat, Alexander A. Cook; Clerk, James T. Kenan, Democrat.

The State officers are elected for terms of four years, at the time of the presidential elections. The Legislature meets biennially in January of the odd-numbered years, but its sessions are not limited, but legislators are not paid for more than sixty days.

**FINANCE.**—The fiscal year ending Nov. 30 began with a balance from the previous year of $18,282.52. From Dec. 1, 1901, to Nov. 30, 1902, there was received into the Treasurer's office $1,907,838.48. This includes the $200,000 loaned by the Park National Bank, of New York city. The disbursements in the fiscal year amounted to $1,863,847.79, leaving a balance in the treasury on Dec. 1, 1902, of $62,571.41. Outstanding warrants brought the actual balance down to $390,000.

Among the larger items of expenditure in 1902 were: For interest on bonds, $239,999; State hospitals, $217,850; public schools, $180,604; Agricultural Department, $66,145; Judicial Department, $69,539; deaf-mute and blind institutions, $115,911; pensions, $20,004.50; Soldiers' Home, $12,000; university, $57,600; Normal College, $35,000; orphan asylum, $15,000; experiment station, $15,000; Agricultural College, $64,511; Colored Agricultural College, Greensboro, $23,550; normal schools, $20,250; Corporation Commission, $12,400; printing, $20,268; Shell-Fish Commission, $18,713.

**VALUATIONS AND TAXES.**—From the figures given out by the Corporation Tax Commission in
December it is learned that the value of real estate was fixed in 1901 for taxation at $175,366.240, and of personal property at $108,078,569, giving a total of $283,441,600. On this the tax at 21 cents on the $100 was $596,227.70.

Other valuations were: Railroad companies, $42,448,799; telephone companies, $355,357.22; steamboats, canals, ferries, $220,471.53; street-railways, $760,300; electric light and gas companies, $93,623.46; telegraph companies, $900,200; sleeping-car companies, $181,720; express companies, $189,573.69; water companies, $84,429; corporate excess, $4,897,442; building and loan stock, $560,521; bank stock, $6,147,703; total, including the above, $341,222,006, and the total tax, $716,566.21.

The pension tax amounted to $136,488.80, and the tax on 267,857 polls to $32,192.44. Income and license and other taxes brought the total for the State to $1,169,024.53. The school taxes, payable to county treasurers, amounted to $1,192,219.03; the county taxes, to $283,258.20; municipal tax, to $11,049.26; street and bridge tax, to $1,126,902.58; total of all taxes, $5,651,400.69.

The School debt amounts to, $6,627,770. The bonded debts of the counties amount to $1,196,811.31, and their floating debt $201,222; the bonded debt of the towns was $4,091,669, and current liabilities, $274,818.51.

Education.—The number of illiterates in the State, according to the last census, was 385,251. In the percentage of children from ten to fourteen able to read and write, the State stands forty-third in the list, with 75.25 per cent.

Another conference was held at Raleigh in April for the purpose of devising means for improving the public schools and awakening greater interest in education throughout the State. The superintendent named as the 5 greatest needs, improvement of the schoolhouses; consolidation of school districts; increase of the public-school fund by local taxation. About 57 per cent. of the school districts in North Carolina have a school population of fewer than 65 children, the minimum number prescribed by law. The work of consolidation of districts has been begun; in December the number had been reduced from 8,115 to 7,853. It was decided at a conference to hold educational rallies in all sections of the State, to have at these rallies inspiring educational addresses, and to have in attendance, in addition to the general public and all friends of education, the county superintendents of the 15 or 20 surrounding counties, and to conduct an institute and some of these superintendents.

A comparison of the number of teachers at the beginning and at the end of the last decade shows that there was a movement toward the employment of more women as teachers in proportion to the number of men. In 1900 there were 2,639 white male teachers and 1,883 white female teachers. Of colored teachers there were male 1,311, and female 910. In 1900 there were only 2,426 white male teachers and 2,591 white female teachers. The colored male teachers numbered 1,131 and the colored female teachers 1,276. The average monthly salary was given as $28.18 for men and $23.14 for women. The receipts of the school fund for the year ending June 30, 1902, were $1,311,301, and the disbursements $1,276,036.

The State Normal and Industrial College, at Greensboro, was visited by the committee in May. The receipts from Oct. 1, 1900, to Sept. 15, 1902, were $174,015.02, and the disbursements $173,983.88.

The Board of Examiners of State Institutions found the Normal Schools for Colored Teachers, at Plymouth, Goldsboro, and Franklinton very unsatisfactory, and censured the directors for neglect. Similar criticisms were made upon the Colored Agricultural and Mechanical College. The examiners said:

"We next note that since the exclusion of girls the number of boys enrolled as students has somewhat increased, until now it is said to be as many as 95. We have tried to learn the actual average attendance, but have not been able to do so because no books have been kept. We have heard reports that it was as low as 40 and as high as 90.

The Executive Committee of the college praises its work, saying: "We believe that the college is offering the kind of education best suited to the colored people, and is doing a great work for them and for the State. It is not true that no books are kept at the college from which the attendance can be learned. There are now [November, 1902] in actual attendance 114 students, an enrollment of 121, which is growing almost daily. Every room in the college, including those formerly occupied by the girls, is full, none having only 2, and none having more than 2 in a room."

The regular appropriations are as follows:

United States appropriation, $3,200; North Carolina appropriation, $7,500. In addition to this, the last Legislature appropriated $4,000 to be used for 2 years to help pay for the farm and help pay debts.

There were 369 students at the Agricultural College, at Raleigh, in May, and 450 in November. The oldest student was 22 years of age, the youngest 15. Nearly $4,000 was earned by students in the year; the largest amount was $163.95 and the smallest 15 cents, the average being $16.35.

The State University had an enrollment in 1901-'02 of 666, the largest in its history. It has been decided to establish in Raleigh a college of medicine in connection with the University; consolidation of school districts; increase of the public-school fund by local taxation.

By the oral methods 1,000 students and an enrollment of 214, of whom 24 are Negro, are attending college.

The Joseph K. Brick Agricultural, Industrial, and Normal School, to which Mrs. Julia Brick, of Brooklyn, N. Y., has given $500,000, is on a farm between Whiteakers and Enderfield, near the Atlantic and Coast Line. The Brick school is located in the heart of the largest negro population in the State. This is the only large sum of money given for negro education that has come to any institution except those at Hampton and Tuskegee.

There are published in the State 292 newspapers. Only 28 are daily; 22 are weekly; 174 are weekly; and 44 monthly. In politics 142 are Democratic, and 17 Republican; many of the weeklies are religious, and some are technical.

Charities and Corrections.—Raleigh has 13,650 residents, and 42 hospitals and almshouses. Of these white deaf children is located at Morganton, and one for the colored at Raleigh. In the school at Morganton are 221 pupils. The number taught by the orphans and orphans is steadily increasing. The yearly per capita is $174.67.

The board finds that while there are about 900 insane persons in the eastern district, there are only 404 patients in the western district, and that the others are either in the jails, in the county houses, or in charge of their relatives. The cost of maintenance is $1,113.12 a month.

The number of white blind children in the Raleigh institution is 150; of colored deaf and dumb and blind, 173. The annual per capita is $175.12.

There must be in the western district about 1,548 insane persons. But there are only 796 in the Morganton hospital. There are on file 400 applications for admission, not one of which has been granted for lack of room. The annual cost per capita is $32.25.

The hospital for insane negroes, at Goldsboro, has 470 patients. The cost per capita is $9.16 a month.
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There are 41 patients in the hospital for the dangerous insane, which is in the State Prison building. The cost per capita is $114.98 a year. In April there were 733 women, of whom 5 are white; 198 of the men are white, and 3 are Indians.

The net profit of the present administration has been $20,643.28. In 1901 the prison failed of being self-supporting by the sum of $32,773.

From July 1, 1901, to July 1, 1902, the number of criminal cases in the courts was 9,301—males 8,634, females 667—against whites 4,951, against negroes 4,339, against Indians 11. Convictions and dismissals 4,616, acquittals 1,183, nolle prossed 1,594, otherwise disposed of 106.

Railroads.—The Corporation Commission this year reduced the passenger-fare rate over the Atlantic Coast Line Railroad, the Seaboard Air Line Railroad, and the Southern Railway. The commissioners' standard rate of 21 cents a mile for second-class fare and 31 cents a mile for first-class fare is now applied, in fact, to nearly every road in the State.

There are 3,681.95 miles of railroad in the State, an increase of 30.82 miles over last year. There were 62,045 miles of new road built, but 35.81 miles were abandoned.

The aggregate earnings of the railroads were $18,476,173.56; the operating expenses, $10,187,100.75; net profit, $8,289,073; bonded debts, $52,982,390; capital stock, $77,877,115; taxes paid, $547,282; number of employees, 11,401; amount of wages, $4,492,590; accidents, 87 killed, 1,105 injured.

The gross earnings of the street-railways were $531,019; operating expenses, $408,338; number of passengers carried, 5,741,044.

The Supreme Court decided that the law passed by the last Legislature should not be construed to mean that the franchises were to be taxed separately from the tangible property.

Banks.—In 1899, when the banks were placed under the supervision of the Corporation Commission, there were 62 in the State. There are now 190—83 State, 23 private, and 14 savings. In 1902 the capital stock was $3,613,564; deposits, $14,046,775; gold, silver, and national-bank notes on hand, $1,188,810; total resources, $20,759,588.

Building and Loan Associations.—There are 26 building and loan associations, with assets amounting to $2,020,676.

Insurance.—In the year ending Dec. 31, 1900, the total of premiums received by North Carolina companies was $298,021.03, and the amount of losses paid $52,817.98. For companies of other States doing business in North Carolina, the premiums received were $765,082.48, and the losses paid were $590,386.95. Premiums received by foreign companies doing business in the State amounted to $369,162.16, and the losses paid were $176,137.95.

Industries and Products.—Following are census statistics on farms in the State: Number, 224,637; value, $194,655,929. Of the valuation 27 per cent. was in buildings and the remainder in land and other improvements than buildings. The tobacco-crop of 1899 was 127,600,400 pounds, valued at $8,038,691.

The cotton-crop of 1901—92 was 550,000. The estimate for 1902—93 was 650,000. In 1899 the rice showed the largest yield of sweet potatoes in the history of the State. From 68,730 acres the product was 5,781,587 bushels, valued at $2,119,956.

The wooded area of the State is 35,300 square miles.

The textile mills of the State show an increase for the year 1901. The number of mills enumerated is as follows: Cotton-mills, 226; woollen-mills, 11; knitting-mills, 41; carpet-mills, 11; jute-bagging mill, 1; silk-mills, 3; total, 283.

In 1900 the number of spindles in use was 1,491,771; it is now 1,864,165.

In the knitting-mills there are in use 3,814 machines, against 2,048 in 1900. The hours of labor for the operatives run from ten in the knitting-mills up to twelve and a half in the cotton-mills.

The number of operatives employed is as follows: 18,171 men, an increase of 21 per cent. over 1900; 18,377 women, an increase of 15 per cent.; 7,996 children under fourteen, an increase of 5 per cent.

In flour and gist mills $2,905,310 was invested in 1900, and the product was valued at $8,967.402.

The value of gold produced in 1901 was approximately, $55,500, and of silver $12,180. The preliminary estimate for 1902 gives the gold value as $91,713, and the silver as $11,418. The agent in charge of precious stones says that in 1901 the deposit of rhodonite garnet in the Cowee valley, Macon County, was worked extensively. Mining for dark blue, green, and yellow beryls, for amethysts, and for emerald matrix was carried on in the State.

Highways.—A good-roads congress was held in Raleigh in February, and a State association was formed. Among the resolutions passed were one advocating greater use of convict labor on roads, one favorable instruction in road-building at the State colleges, and one asking for the creation of the office of highway commissioner, with an appropriation for supervision.

The State Fair.—The first State fair of North Carolina was held in 1858; the fiftieth anniversary this year was marked by an unusually fine exposition.

Historic.—A celebration was held on Guilford battle-ground, July 4, when a monument to Nathaniel Macon was unveiled and an oration on his character and services was delivered by the Hon. T. S. Pittman.

Elaborate preparations are making for celebrating, on Roanoke Island, the three-hundredth anniversary of Sir Walter Raleigh's colonies and the birth of Virginia Dare (in August, 1887), the first Anglo-American.

Federal Appointment.—Considerable excitement has been raised over the question of the appointment of Sam Vick, a colored man, postmaster at Wilson. The people of the town testify freely to his good character and capacity, and place their opposition frankly on the ground of his color. It is said there is not a white Republican in the town.

Lawlessness.—Reports have been published of the lynching of 4 negroes, 1 for criminal assault and 3 for murder. The negro lynched at Washington in March had poisoned the whole family of Dr. D. T. Taylor, none of whom died. The Governor offered $400 reward for the arrest and conviction of each member of the mob that lynched 2 negro brothers at Salisbury in June; they were believed to have murdered a young lady who had ordered them off her premises, though there seems to have been some room for doubt of the guilt of the younger, who was but fourteen years old. In the case of the negro lynched for criminal assault at or near Kinston, the coroner's jury found that he came to his death at the hands of parties unknown to the jury, and added: "In view of the enormity of the crime committed by said Tom Jones, alias Frank Hill,
we think they would have been recreant to their duty as good citizens had they acted otherwise."

**Legal Opinion**—The justices of the Supreme Court contend that their salaries are not liable to taxation on the ground that the Constitution declares that their salaries are not to be diminished during their term of office, and the Attorney-General, in a written opinion, which applies to the salaries of other State officers as well.

The decision against the antitrust law of Illinois probably invalidates that of this State as well.

**Political.**—At the State election, in November, a Chief Justice and 2 Associate Justices of the Supreme Court were to be chosen, for terms of eight years, succeeding Judges Puche, Clark, and Cook, and a member of the Corporation Commission to succeed D. H. Abbott, for a term of six years; also a Superintendent of Public Instruction.

The Democratic Convention, in Greensboro, July 16, nominated Walter Clark for Chief Justice and Henry G. Connor and Platt D. Walker for Associate Justices. Eugene C. Bellingfield was named for Corporation. Judge James Y. Joyner for Superintendent. The platform declared allegiance to the national platform of the party; congratulated the people upon the adoption of the suffrage amendment; commended the State administration; denounced the policy of "imperialism"; condemned trusts and Congress for not restraining them; favored the establishment of the Appalachian park; and favored nominations by primaries.


After approving the national administration and affirming allegiance to the party principles, the platform accused the Democrats of violating their pledged pledges in regard to reductions in expenses, number of offices, and salaries, and said further:

"They promised, by affidavit and otherwise, that no white man would be disfranchised under the amendment to our Constitution, but instead of observing their pledge with respect to this matter the Democratic State chairman is now forced to admit that 18,000 white men will be denied the right to vote at the approaching election."

"We will oppose the unconstitutional and warrantied effort to impeach 2 of our Supreme Court justices for purely partisan purposes, for following precedents established by the Supreme Court of this State in a long line of decisions covering a period of more than sixty years."

"We further condemn them for the enactment of legislation appropriating the money of the people for the purpose of defraying the expenses of persons indicted for violation of laws which they had sworn to obey, and for granting amnesty to such persons from prosecution in the State courts."

The convention was composed entirely of white men; contesting delegations of negroes were not seated in any instance.

Negro Republicans held a convention in October; they made no nominations, but adopted a set of resolutions condemning the treatment accorded them.

All the Democratic candidates for State offices were elected. For Chief Justice, Clark, Democrat, had 132,230 votes, and Hill, Republican, 71,275. All the 10 representatives in Congress are Democrats. The Legislature stands on joint ballot 144 Democrats, 22 Republicans, and 4 Independent Democrats. There was a tie in the Thirty-fourth Senatorial District, each candidate having 3,816 votes.

**North Dakota,** a Northwestern State, admitted to the Union Nov. 2, 1889; area, 70,735 square miles. The population was 192,719 in 1890 and 318,148 in 1900. Capital, Bismarck. Governments. The following were the State officers in 1902: Governor, Frank White; Lieutenant-Governor, David Bartlett; Secretary of State, E. F. Porter; State Auditor, N. Carroll; State Treasurer, D. H. McMillan; Commissioner of Insurance, Ferdinand Leutz; Attorney-General, O. D. Comstock; Superintendent of Public Instruction, J. M. Devine; Commissioner of Agriculture and Labor, R. J. Turner; Commissioners of Railroads, C. D. Lord, J. F. Shea, J. J. Youngblood; secretary, C. C. Hammond; State Land Commissioner, E. J. Laxdal; Adjutant General, E. S. Miller; Geologist, Frank A. Wil¬
der; Oil Inspector, L. W. Schruth; Superintendent of Public Health, H. H. Healey; State Examiner, R. E. Wallace; Veterinarian, J. W. Dun¬
ham; Chief Justice, James Y. Joyner; Associate Justice, W. Wallin; Associate Justices, N. C. Young, D. E. Morgan. All are Republicans.

The State officers are elected for terms of years in November of every even-numbered year. The Legislature meets biennially in January of the odd-numbered years. The length of the session is limited to sixty days.

**Finances.**—The Governor says in his message:

"I desire particularly to draw your attention to the improved condition of our State treasury and the reduction made in our State debt. On Jan. 1, 1901, there were less than $10,000 in the general fund. The accounts against the State were six months past due, upon the Auditor's table were $80,000 of funding warrants issued to pay current expenses, and more than $150,000 of vouchers awaiting payment. It had been a common practice for the Legislature each two years to authorize the issuing of short-time warrants to square accounts. These warrants drew a high rate of interest, were not considered good by investors, and were often only sold upon the personal assurance of the officers issuing them that they would be paid. During the last two years $270,000 of these warrants were issued. All these warrants have been gradually paid off. All other obligations of the State have been promptly met. We have practically all bills paid and with a small balance in the general fund. During the same time, by a special tax, $153,000 of asylum bonds have been paid off and the bonded debt reduced to that extent. This has been accomplished principally by reason of increased revenues. Our assessed valuation and tax levy for general purposes have grown very materially."

**Valuations.**—The valuation of all property in the State for purposes of taxation is $128,380,414: The valuation in 1901 was $124,592,521. The principal increase in valuation is in real property, which as equalized this year was more than $7,000,000 above the value in 1901. The value of real property is $83,105,926. In 1901 the total was $77,384,924. Reduction of the assessed valuation of live stock kept down the total of personal property. Railroad property is valued at $18,970,000. Telegraph property is equalized at $219,465, telegraph property at $1,253,845, and express companies at $143,665.

The rate of the general State tax is 4 mills: that of the bond interest tax, $1 per $100.
collections of taxes in the two years amounted to $395,654.46 for general purposes.

Education.—The number of illiterates in the State in 1901 was 97,000, or 6 per cent. of the population. In 1901 were: Wheat, 55,000,000 bushels; oats, 20,000,000; flax, 25,000,000; corn, 2,000,000. North Dakota is the leading State in the production of flax.

Tests of lignite for use on railroads, which were made this year, are reported to have proved that with engines constructed for the consumption of lignite this fuel is available for use on the road at a great saving over the fuel now used. The principal objection in the past, when tests of lignite have been made in railroad locomotives, has been that the draft has lifted the fire out of the fire-box and carried the live coals through the flues and out of the stack, rendering it difficult to keep a fire. This has been overcome in the construction of the engine with which the recent test was made. This engine has a brick arch over the fire-box, which prevents the lifting of the fire, which passes around the end of the arch, and then through the flues, keeping a steady and hot flame. All gases from the coal rise to the top of the arch, where they are consumed.

Lands.—In North Dakota there are 15,071,477 acres of unappropriated lands, of which 10,121,977 acres are surveyed and 4,949,490 acres are surveyed but not surveyed. The reserved area embraces 8,325,450 acres, and the appropriated lands 26,513,113.

The lumbered area is estimated at 600 square miles. In 1901 the lumber and wood products sold lands that brought in cash payments of $282,000 and represented a total cash value of nearly $1,300,000. The common-school fund received about $200,000 in 1901.

The State institutions received $79,239, placed to the credit of their permanent funds, as follows: Agricultural College, $16,160.23; Blind Asylum, $4,622.18; Capitol building, $8,813.09; School for the Deaf, $6,144.98; Insane Hospital, $2,496.12; Industrial School, $4,935.96; Valley City Normal School, $4,852.62; Mayville Normal School, $2,817.62; Reform School, $5,083.78; Scientific School, $2,461.56; School of Mines, $3,642.16; Soldiers' Home, $4,856.90; university, $11,063.07.

Fort Lincoln.—This military post near Bismarck has been in service more than two years, but it is far from complete; when finished it will comprise 62 buildings. Only 3 are finished. These are the officers' quarters, the barracks, and the engine-house and water-works. All the buildings are of brick.

Grand Forks.—This city is to have a Carnegie library as soon as the subscription list for the lot, furnishings, etc., which is now nearly complete, is finished.

Insurance.—The life-insurance claims paid in the State in 1901 amounted to $200,661.

Industries and Products.—From statistics given by the Commissioner of Agriculture for 1901, and a review of the progress of the State, the following: Number of flouring-mills, 70; lignite-coal mines, 33; cheese factories, 8; creameries, 20; Treasurer, D. H. Ranlet; 3,180; combined farms and ranches, 2,150; tons tame and wild feed made, 926,005; acreage lost by hail, 1900, from one-fourth to total, 512,482; estimate of flax per acre, 10.15 bushels; estimate of wheat per acre, 12.25 bushels. The returns show a most remarkable increase in such grains as corn, barley, and rye, and the garden produce was nearly doubled in 1901 over 1900.
The Democratic nominations, made at Fargo Aug. 1, were: For Governor, Joseph E. Cronan; Lieutenant-Governor, Samuel K. McGinnis; Secretary of State, John A. Loudermilk; Auditor, John F. Morrison; Treasurer, James McDonald; Attorney-General, Michael J. Barrett; Superintendent of Instructi, Vilhjalmar Stevenson; Commissioner of Instruction, Frank A. Wilson; Commissioner of Agriculture, Oscar H. Will; Railroad Commissioners, Peter L. Pritchard, Charles P. Peterson, Oliver Knudson.

For Justice of Supreme Court, the Republican candidate, John M. Cochrane, was adopted.

The platform declared strongly against the so-called railroad merger, pledged a resubmission of the prohibition law, favored initiative and referendum, demanded the repeal of the follow-servant law, and called for the equal taxation of corporations.

The prohibitionists met in small number at Hillesboro Aug. 6 and nominated J. G. Giverson for Governor and Charles H. Mott for Lieutenant-Governor; but the names were not on the ballot.

Representatives of the Socialists met at Fargo in Aug., and nominated John D. McIntosh for State ticket: For Governor, Robert Grant; Lieutenant-Governor, Ralph W. Simpkins; Secretary of State, William Lamb; Auditor, L. F. Munter; Treasurer, William Olson; Superintendent of Public Instruction, William Ballou; Commissioner of Insurance, P. T. Sande; Commissioner of Agriculture and Labor, L. F. Dow; Railroad Commissioners, W. J. Bailey, Soren Madson, S. E. Haight.

The election resulted in the success of the entire Republican State and congressional ticket. For Governor the vote stood: Republican, 31,613; Cronan, Democrat, 17,576; Grant, Socialist, 1,265.

The Legislature will have 117 Republicans and 23 Democrats. For State Superintendent of Public Instruction there were cast about 4,000 more votes than for the other State officers, indicating that number of women's votes. If the vote of women in the State is comparatively the same as the male vote, only about one woman in twelve voted.

BEIGI, a Central Western State, admitted to the Union in 1883; area, according to the Geological Survey, 41,060 square miles, of which 300 are water surface. The population, according to each decennial census since its admission, was 29,492 in 1860; 182,019 in 1870; 367,024 in 1880; 1,191,417 in 1890; 1,980,329 in 1890; 2,339,311 in 1890; 2,685,209 in 1870; 3,198,082 in 1880; 3,672,316 in 1890; and 4,157,224 in 1900. It ranks fourth among the States in point of population.

Government.—The State officers during 1902 were: Governor, George K. Nash; Lieutenant-Governor, C. L. Nipper, and H. L. Gordon, vice Nipper, resigned; Secretary of State, L. C. Laylin; Treasurer, J. B. Cameron; Attorney-General, J. M. Sheets: Judges of Supreme Court, J. E. Burket, J. A. Shumack, J. L. Price, W. T. Spear, William Z. Davis, William B. Crew (appointed July 19 to fill vacancy caused by death of Marshall J. Williams, July 9); Clerk of Supreme Court, L. E. Emerson; Commissioner of Common Schools, Lewis D. Bonebrake; Dairy and Food Commissioner, Joseph E. Blackburn; Board of Public Works, Frank A. Huffman, Charles A. Goddard, William G. Johnston. All the State officers were Republican.

The term of the Governor, Lieutenant-Governor, Treasurer of State, and Attorney-General is two years, beginning in January of the even-numbered years; of the Secretary of State, two years, beginning in January of the odd-numbered years; of the Dairy and Food Commissioner, two years, beginning in February; of members of the Board of Public Works and Clerk of the Supreme Court, three years, beginning in February; of the Commissioner of Common Schools, three years, beginning in July; of the Auditor of State, four years, beginning in January of even-numbered years; of Judges of the Supreme Court, six years, beginning in February. All are prohibited from re-election in November. The Legislatures meet annually in January of the even-numbered years, there is no limit to the length of the session.

Finance.—The balance in the treasuries to the credit of the general revenue fund at the beginning of the fiscal year, Nov. 10, 1901, was $2,226,664.46; total receipts of general revenue fund during fiscal year, $9,206,170.91; amount paid for fund during year, $5,229,098.42; total receipts of sinking-fund during year, including balance from previous year, $804,781.72; total disbursements from sinking-fund, $550,219.49; receipts of State common-school fund, $2,117,735.80; balance from previous year, fund, $121,921,945.10; balances from State common-school fund, $1,829,924; receipts to credit of university fund from taxes, $747,720.47; aggregate payment to universities during fiscal year, $322,326.52; payments for support of other State institutions, $5,148,571.91; total assessed value of real property in State, $1,186,180,471; total assessed value of personal property, $804,704,917; debt of State, bonded and other, $200,000; unredeemable debt (school fund), $4,729,936; aggregate debt of counties, municipalities, and school districts, $106,936,137.

Militia.—At the close of the fiscal year, Nov. 15, the total strength of the Ohio National Guard was 5,008, of which 26 were staff-officers, 5,087 in 2 brigades of infantry, 310 in naval brigade, 143 medical department and signal corps, 229 artillery; 110 cavalry.

Railroads.—The report of the Commissioner of Railroads shows that in all classes of railroad business it was the greatest year in Ohio's history. At the end of the fiscal year, Nov. 15, the length of main line was 9,059 miles. With new second, third, and fourth, tracks, the increase over the preceding year was 361 miles. The original cost of capital stock was $10,644,368.26. The total increase in capital stock per mile was $564. Cost of equipment on lines operated in Ohio increased by $14,730,259, or 8.7 per cent. on the lines operated within the State. Total earnings for the entire lines was $240,407,738.14, an increase of $20,183,927.54 or 9.17 per cent. Total earnings in Ohio from all sources, $101,001,341.37, an increase of $11,302,063.62, or 12.6 per cent. The percentage of earnings in Ohio to entire earnings is 42.42 per cent. There was an increase of $7,581,567.53, or 12.39 per cent., in operating expenses on the entire lines, and $3,711.21 or 13.01 per cent., in that part of the line running through Ohio. Total number of passengers carried in Ohio, 1902, 128,499, or an increase of 1,998,021, or 7.50 per cent. Number of tons of freight transported, 1902, 132,113,785, an increase of 14,485,124 tons, or 12.31 per cent. Average receipts per ton, 35.45 cents, an increase of 1 cent. Freight earnings per mile, $6.990.13, an increase of $1,018.83, or 17.06 per cent. The total number of persons injured in 1902 was 3,092, an increase of 1.13 per cent. Of the 52 operating corporations within Ohio, 21 paid dividends.

Legislative Session.—The General Assembly was opened on Monday, Jan. 6, and closed on the 31st of January.
regular session Monday, May 12. The Republican
ans had a majority of 9 in the Senate and 14 in
the House. Several important laws affecting tax-
ation and corporations were passed. Among them
are these:

Requiring domestic and foreign corporations
other than quasi-public corporations to file an-
ual reports and pay annual fees of one-tenth of
1 per cent. on invested capital stock.

An amendment to the law relating to electric-
light, gas, natural gas, express, telephone, tele-
graph messenger, railroad, pipe-line, waterworks,
street, suburban, and interurban railroads and
other corporations increases their annual tax
from $4 to 1 per cent. of the gross receipts for
the business done in Ohio in the year next preceding
the 1st day of May.

An addition to the Dow tax law providing for
a stricter enforcement of the tax on the sale of
liquors.

Providing that an action upon the liability
of stockholders of corporations can only be brought
within eighteen months after the date the obliga-
tion shall become enforceable against said stock-
holders.

Giving the Governor and the Secretary of State
the power to remit penalties against foreign cor-
porations for failure to comply with the corpora-
tion laws where good cause is shown for such fail-
ure or neglect; also providing that where two-
thirds of the property or business of the foreign
corporation is invested in Ohio, and the corpora-
tion pays one-tenth of 1 per cent. upon its au-

torized capital stock, the shares of stock of such

corporation held in Ohio need not be returned for
taxes.

Providing that a corporation may purchase or
otherwise acquire and hold shares of stock in kin-
dred, but not competing corporations, whether
domestic or foreign.

Requiring owners of bank stock outside of Ohio
to list their stock for taxation in Ohio.

Among the enactments of other character the
most important are the following:

Providing that the action of a political party
convention on a proposed amendment to the State
Constitution may be expressed by affirmative or
negative expression printed with the party ticket
on the official ballot.

Establishing State normal schools at Ohio and
Miami Universities.

Naming schools and colleges.

Authorizing an Ohio commission and building
at the St. Louis fair and appropriating $75,000.

Restricting the State for congressional elec-
tions.

Making burglary of an uninhabited house a
crime punishable by imprisonment for life.

Perfecting the child-labor law and fixing the
age at fourteen years.

Providing stringent punishment for assault on
a President, Vice-President, Cabinet officer, gov-
ernor, or lieutenant-governor.

Requiring the registration of union labels.

Having safe-blowing a crime punishable with
five to fifteen years' imprisonment.

Making it an offense to desecrate the United
States flag.

Providing an official State flag for Ohio.

Providing that grade-crossings in cities may be
abolished, the cost to be divided equally between
the city and the railroad company.

Several "sewer" bills affecting municipalities
were passed, but the subsequent action of the Su-
preme Court nullifying special enactments and the
adoption of a general municipal code disposed of
some of them.

The Legislature provided for the submission
of amendments to the Constitution to the vote of
the people at the November election, 1903: Giving
the General Assembly greater power in the matter
of classifying subjects for taxation under the gen-
eral laws of the State; the stockholders' liability
amendment, which in effect abolishes the double
liability laws of the Constitution; and providing
for single legislative districts.

A special session was called by Gov. Nash, and
was held from Aug. 25 to Oct. 22. The cause was
the necessity for the enactment of a municipal
code and the correction of an error in an act
passed at the regular session, the effect of which
was to prevent cases being appealed to the Su-
preme Court. Both objects were effected after
nearly two months of discussion, and, in addition,
a resolution was adopted submitting to the people
in 1903 a constitutional amendment permitting
the classification of cities into 3 divisions of over
100,000; between 25,000 and 100,000; and below
25,000.

Corrupt Practices in Elections.—A previous
Legislature enacted a law to prevent corrupt prac-
tises in elections. After each election candidates
were required, under penalty, to make sworn re-
turns of their election expenses. The law was
evaded by many and at times openly violated by one
candidate, who declared it to be unconstitutional.
The case was taken to the Supreme Court, which, Jan. 28, sustained the
constitutionality of the law. A few weeks later the Legislature repealed the
enactment.

Court Decision.—A complete revolution in
legislation for municipalities was effected by the
decisions of the Supreme Court in cases coming
before it from Cleveland and Toledo. These deci-
sions destroyed a system that had grown up year
by year for half a century, and reversed the posi-
tion which the court had held from the beginning
until recently. The Constitution provides that
"the General Assembly shall pass no special act
confering corporate powers," and in another sec-
tion that "all laws of a general nature shall have
a uniform operation throughout the State." Im-
mediately after the adoption of the Constitution
the Legislature classified the municipalities into
cities of the first and second classes, those hav-
ing a population of more than 20,000 peo-
ple in the first class, and the remainder with a
population of over 5,000 being in the second class
—incorporated villages, and incorporated villages
for special purposes. Successive Legislatures sub-
divided these classes, and finally substituted a pol-
icy of isolation instead of classification, while the
courts sanctioned many of the acts, but this was
done with reluctance and on the grounds of pub-
lic policy." Recently the Supreme Court, in some
minor cases, showed a disposition to check the
progress of special legislation, and in the cases
brought to oust the Police Board of Toledo and
the entire municipal government of Cleveland, ex-
cept the mayor, on the ground that the acts cre-
ating them were applicable to the respective class
only, a position was taken that left every munici-
pality in the State without a legal government.
In the decision made in the latter part of June the
court declared the present classification of the
municipalities of the State to be repugnant to the
Constitution and that the entire municipal code
of Ohio must be revised and brought into
harmony with the fundamental law of the State.
This was followed, four months later, with a deci-
sion in a school case which practically destroyed
all the special school laws of the State and made
necessary the enactment of a general school law
as well as a general municipal code. In both in-
stances execution of judgment was suspended that the Legislature might have time to act.

The Municipal Code.—The new municipal code provides for the government of cities and villages. All municipalities of 5,000 and over are cities. All others are villages. The organization of a city includes a mayor, president of council, or vice-mayor, treasurer, solicitor, and auditor. The last-named official is elected for a three-year term. The others are elected for two-year terms. Part of the council are to be elected on a general ticket and the greater number from wards of a specified population. Councilmen are elected for two-year terms, but half of them are retired each year. The real government of the city is practically vested in two boards, the board of public service and the board of public safety. The latter has charge of the police and fire departments, and the former of all the other departments of public service. The board of public safety is to be bipartisan and composed of 2 or 4 members, as the council may determine. The appointment is made by the mayor subject to confirmation by two-thirds of the council. If not so confirmed, the governor appoints. The board of public service, of 3 or 5 members, as the council may provide, is elected on a general ticket for two-year terms. This body is given unchecked control, the power of the council being, with the exception of confirming the board of public safety, civil service is expressly limited to the fire and police departments. In addition there is a board of health of 5 members appointed by the mayor, who is president of this board, and a bipartisan sinking-fund and tax commission of 4 members, also appointed by the mayor.

Political.—The Republican State Convention was held in Cleveland, May 28th. The following ticket was nominated after a sharp contest: For Secretary of State, Lewis C. Laylin; Judge of Supreme Court, William B. Crew; Member of Board of Public Works, William Kirtley, J.; Dairy and Food Commissioner, Horace Ankeney. The platform adopted was of great length, but was almost wholly devoted to national affairs.

The Democratic State Convention was held at Cedar Point, near Sandusky, Sept. 3. The candidates, with 1 exception, were nominated by acclamation, there being 1 ballot for the office of Dairy and Food Commissioner. The nominations were: For Secretary of State, Herbert S. Bigelow; Judge of Supreme Court, Michael Donnelly; Member of Board of Public Works, Joseph J. Pater; Dairy and Food Commissioner, Philip H. Bruck. The platform—after a preamble in which “continued allegiance to the Democratic party of the nation” was declared, and “the principles laid down in the last national platform adopted at Kansas City, and faithfully and fully represented in the presidential campaign of 1900 by William Jennings Bryan,” were reaffirmed and approved—dealt exclusively with State affairs, the several resolutions setting forth the principles of “home rule and just taxation,” and pledging the party to the accomplishment of these purposes in municipal and State affairs. The Socialist party held its State convention in Columbus, May 30, and nominated a full State ticket as follows: For Secretary of State, Max S. Hayes; Judge of Supreme Court, George F. Maxwell; Member of Board of Public Works, William C. Edwards; Dairy and Food Commissioner, George Flummerfelt. The platform called for municipal ownership, reduction of hours and increase of wages, $1,426,900.19; the total expenditures, $778,460; the
interest on Territorial funds amounted to $27,074.06; balance on hand Dec. 1, 1901, $372,153.92; interest on $750,584.44. The total amount of warred indebtedness on Nov. 30 was $884,176.09; deducting the balance on hand in treasury would leave only $35,788.39 indebtedness, or about 0.6 per cent. The year was the first in the history of the Territory in which the income from taxation was sufficient to pay the running expenses of the Government and a portion of the accumulated debt. During the year $108,414.33 of warrants were redeemed; the interest paid on these was $28,894.89. Territorial funds are deposited in banks which have been made depositories under authority of law. Funds are protected by securities required by law. Warrants were issued on the treasury for $406,998.98. The delinquencies on Territorial tax, covering eleven years, amounts to $232,597.55. The assessed valuation of the Territory is $72,672,423. This amount represents only about one-fourth of the real value of the property when estimated on a cash basis, which would be about $300,000,000.

Education.—The amount spent by the Territory from various school funds in the treasury in the year 1889 was $4,143.23; in 1890, $7,151.02; in 1891, $24,550.19; for two years past, $485,828.61; for all other purposes in the two years, $382,692.97. In the year 1872 public schools were taught, with an aggregate enrollment of 118.971, and $502,277.55 was paid to teachers. There were 1,802 pupils graduated from common schools. There was apportioned during the year among the counties, as a Territorial fund, $900 of cottonseed, 1,209 of hay, 4,842 of flour, 391 of horses and mules, 1,846 miscellaneous, and 164,552 bales of cotton. The imports amounted to 1,091 car-loads of farm machinery, 1,892 of flour, 2,583 of home-seekers' goods, 7,225 of coal. Oklahoma annually exports thousands of car-loads of flour and wheat to Europe and South Africa.

Commerce.—There were shipped out of the Territory, in the year 1893, 6,528,492 lbs. of cattle, 18,993 lbs. of wheat, 210 lbs. of corn, 308 of oats, 65 of castor-beans, 2,892 of hay, 700 of cottonseed, 1,209 of hay, 4,842 of flour, 391 of horses and mules, 1,846 miscellaneous, and 164,552 bales of cotton. The imports amounted to 1,091 car-loads of farm machinery, 1,892 of flour, 2,583 of home-seekers' goods, 7,225 of coal. Oklahoma annually exports thousands of car-loads of flour and wheat to Europe and South Africa.

Population.—The assessors' returns for 1892 show Oklahoma to have 541,480 population, an increase of 153,149 over 1901. Estimates now place the population at 600,000.

Public Lands.—This year, 3,089,502 acres of public lands were homesteaded, leaving 3,777,883 acres still open for settlement under the homestead laws; more than 3,000,000 acres of that are in Beaver County. Congress will be asked to extend the free-home measure over all these lands.

All the 2,055,000 acres of school lands, the property of the Territory for the support of schools, are now leased, the rentals for 1902 amounting to $300,000.

Agriculture.—The wheat-crop of 1902 amounted to 30,000,000 bushels; corn, 65,000,000 bushels; cotton, 10,000,000 bales; potatoes, 150,000 bushels; melons, 170,000 crates; peanuts, 50,000 bushels; oats, Kafir-corn, sweet potatoes, broom-corn, alfalfa, sorghum, timothy, clover sugar-beets, and all manner of fruits are grown in abundance.

Farm Lands.—There were listed for taxation in 1902, 3,044,002 acres of farm lands, an increase of 1,792,815 over 1901.

Resources.—The Wichita mountains produce copper, lead, zinc, gold, silver, magnesia, calcium, cobalt, nickel, manganese, barium, antimony, arsenic, aluminum, sulfur, and oil. Extensive oil developments have been made at Granite and in
the Osage Indian reservations; immense deposits of salt are found in Blaine, Woods, and Woodward counties, and saline reserves; granite is found in great beds near Granite and in Blaine County; and cement beds are inexhaustible in the Keechi hills and near Sterling. The oil strata are heavily charged with gas. Plants for developing mineral products have been erected at Granite, Wildman, Lawton, Oke, and Bartlesville, Indian Territory, near the Osage reservation.

Portions of Oklahoma are heavily timbered with oak, elm, walnut, pecan, hickory, sycamore, cottonwood, ash, cedar, etc. Within the year walnut timber has become one of the leading products of the Territory. Oklahoma furnishes a large part of the world's pecan-crop.

**Indian.**—The number of Indians in Oklahoma is 12,883, a decrease of 26 from 1901. Nearly 500 Arizona Apaches are held at Fort Sill by the Government as prisoners of war. Numbered by tribes, there are 1,960 Osages, 220 Kaw, 557 Potawatomi, 370 Otoes, 54 Tonkawas, 638 Pawnees, 479 Sauk and Fox, 91 Iowa, 1,722 Pottawatomies, 500 Shawnees, 2,808 Cheyennes and Arapahoes, 1,154 Kiowas, 1,467 Comanches, 164 Apaches, and 94 Delaware and allied tribes. The Osages are the only Indians unallotted at present. They own 1,400,000 acres, and the annual interest on their fund in the Government Treasury is $150,000, making them the richest people on earth, per capita wealth being about $18,000.

**Citizen.**—There are 20 cities of the first class in Oklahoma, with a population 30 per cent. greater than in 1890. The valuation of town property returned for taxation in 1902 was $11,629,188.

**Manufactures.**—There are 10 cottonseed-oil mills and 220 cotton-gins in Oklahoma; 2 cotton compresses; 228 grain-elevators, with a total capacity of 2,857,000 bushels; 48 flouring-mills, with a total daily capacity of 8,700 barrels. There are 531 manufactories of all kinds in the Territory.

**Penitentiary.**—Under contract the Oklahoma convicts are cared for by the State of Kansas at 35 cents each day. There were 287 convicts furloughed, 9,083 Oklahoma in the Fifty-ninth Congress by the conditions that grew out of the unifying of the remaining Territories in one bill. There were objections against Arizona and New Mexico, which united against Oklahoma. Recognizing that ultimate single statehood with Indian Territory is inevitable, the advocates of immediate statehood for Oklahoma are not radical in their demands.

**Political.**—Gov. William M. Jenkins retired at the close of 1901, and was succeeded by Thompson B. Ferguson, an original Oklahoman, of those who made the run for homes. The "home-rule" idea has been followed by the Government in the appointment of all officers in the Territory. Congress created two more places on the Oklahoma Supreme bench, and Associate-Justices M'Atte retired. Associate-Justices Gillette, Beachamp, and Pancoast (all Oklahomans) were nominated by the President. C. H. Thompson resigned as United States marshal, and was succeeded by another original Oklahoman, William D. Fossett.

**OCEANO.**—A Pacific coast State, admitted to the Union Feb. 14, 1859; area, 49,500 square miles. The population was 13,294 in 1850; 32,463 in 1860; 40,923 in 1870; 174,788 in 1880; 313,397 in 1890; and 413,338 in 1900. Capital, Salem.

**Government.**—The following were the State officers in 1902: Governor, Theodore T. Geer; Secretary of State and Auditor, Frank I. Dunbar; Treasurer, Charles S. Moore; Attorney-General, R. D. N. Blackburn; Superintendent of Public Instruction, J. H. Askew; Inspector, C. U. Gantzein; Chief Justice of the Supreme Court, Charles E. Weldon; Associate Justices, Robert S. Bean and Frank A. Moore; Clerk, J. J. Murphy—all Republicans.

The term of the State officers is four years, and they are elected in June of even-numbered years—alternating with the presidential elections. In June of all the even-numbered years members of Congress, the Legislature, and a justice of the Supreme Court are elected. The Legislature holds biennial sessions, beginning in January of odd-numbered years, and continuing for two years. It consists of 30 Senators, elected for four years, and 60 Representatives.

**Finances.**—Debt stock in 1899 was $96,150,000; capital stock in 1801 was $1,647,032; surplus, $186,432; undivided profits, $403,138; deposits, $6,701,334; demand certificates, $589,605; cashier checks outstanding, $39,074; due to banks, $183,314; bills payable, $39,721; bills receivable, $287,243. The number of national banks is 66; average reserve held, 18.5 per cent.; total deposits in national banks, $11,029,635.25; average deposit per capita in national banks, $22; average deposits in both national and Territorial (State) banks, $37,67; total deposits in all banks in Oklahoma, $11,772,900. The excessive amount of deposits held by the 66 national banks over the amount held by the State banks may be accounted for to a large extent from the fact that many national banks of the Territory are used as reserve agents by the Territory (State) banks.

**Statehood.**—Oklahoma is claiming eligibility to statehood. The claims are based on population, education, and wealth. The Republican party in Oklahoma made the campaign of 1902 on the issue of statehood for Oklahoma alone and at once. The Democratic party made the issue single Statehood for Oklahoma and Indian Territory. The law was passed, and the Territory is alleged to be unfit for statehood at this time, because the lands are still largely held in common by the Indian tribes. Legislation looking to statehood is discussed in the Fifty-ninth Congress by the conditions that grew out of the unifying of the remaining Territories in one bill. There were objections against Arizona and New Mexico, which united against Oklahoma. Recognizing that ultimate single statehood with Indian Territory is inevitable, the advocates of immediate statehood for Oklahoma are not radical in their demands.
the taxes will be assessed by the several counties at a ratio fixed by law.

The receipts of the treasury for 1901 were $2,367,746.60; disbursements, $1,889,134.64; balance Dec. 31, $828,287.25.

The Treasurer's report for the six months ending June 30, 1902, gives the receipts for that time, including the balance at the close of 1901, as $2,031,534.62; disbursements, $762,286.32; balance July 1, 1902, $1,269,250.30. The receipts of the general fund were $632,906.32; disbursements, $426,832.92. The receipts of the common-school fund were, principal, $380,458.08; interest, $119,909.98; disbursements from the principal, $244,700.00; interest, $10,000.00. The other principal item, which marked a considerable increase over the income from the same source of the preceding year, was $15,133.55 added to the balance on hand Jan. 1, 1902, as $1,013,292.61. The balance on hand Jan. 1, 1903, was $1,122,706.11, of which $234,823.76 was in the general fund and $724,772.25 in the common-school fund, the money in the general fund being sufficient to pay all warrants up to the time of the receipt of the spring taxes. The receipts of the general fund in the second half-year were $341,137.98; disbursements, $304,606.80. The common-school fund receipts were, principal, $351,197.05; interest, $117,721.04; disbursements from the principal, $332,600.04; and from the interest, $209,609.94.

The prices and products—We estimate the increase of wealth accruing to the State from five of its principal industries—lumber, wheat, wool, hops, and salmon—reaches $25,000,000. This amount, together with the results from other industries, makes 1902 as the most prosperous year in the history of the State.

A report on the forests by Henry Gannett, of the Geological Survey, estimates the timber in the State to be 213,898,000,000 feet. A board measure, an average stand per acre of timbered land of 12,200 feet. A wide difference exists between the sections west and east of the crest of the Cascades. Oregon. Of the report of the timber lands of Oregon, 60 per cent. of the Oregon timber, while of pine, including the yellow and sugar varieties, and oak, pine, maple, 15.6 per cent.; fir, 12.7 per cent.; lodgepole, 5 per cent.; and cedar, 2 per cent. The report gives a startling estimate of the loss sustained by the State through forest fires. The areas of burned timber (not including those of 1902) comprise not less than 6,005 square miles, where approximately 54,000,000,000 feet of timber has been destroyed. The burned sections west of the Cascades, which are well watered, are in some stage of reforestation. Other sections, burned from twenty-five to fifty years ago, bear no vegetation larger than brush and ferns.

No authoritative report on the lumber-cut of 1902 has been published, but a conservative estimate places the cut at 1,000,000,000 feet, valued approximately at $10,000,000.

Statistics published by the Department of Agriculture of the United States give the acreage, production, and value of the principal farm-crops of the United States in 1902, give the following for Oregon:

- Barley—acreage, 9,962,105 bushels; total value, $3,517,704.
- Wheat—acreage, 1,045,000 bushels; total value, $233,243.45.
- Potatoes—acreage, 35,724; production, 3,679,572 bushels; total value, $107,856.
- Tomatoes—acreage, 34,537; production, 700,815 tons; total value, $5,242,090.
- Flaxseed—acreage, 2,300; production, 15,064 bushels; total value, $10,081.

On June 1, 1900, the farms of the State numbered 36,837, and were valued at $182,827,514. Of this amount 14.5 per cent. represents the value of buildings and 85.5 per cent. the value of land and improvements. The number of farms in 1900 was 40.4 per cent. greater than in 1890, while the gain in acreage was 45.8 per cent. The value of all live stock on farms and ranges June 1, 1900, was $33,917,046, of which 32.6 per cent. represents the value of meat cattle other than dairy cows; 25.5 per cent. that of horses; 22.3 per cent. that of sheep; 12.1 per cent. that of dairy cows; 5.1 per cent. that of swine; and 4.4 per cent. that of all other live stock.

Increase was reported in the dairy industry, the production of milk showing an increase of 94 per cent., and the quantity of butter increasing 69.4 per cent., and that of cheese 75.9 per cent. The production of wool has gained 83.8 per cent. in ten years, the improvement in the grade of sheep being shown in the average weight of fleeces from 6.3 pounds in 1890 to 8.6 pounds in 1900. The increases in the acreage devoted to the several cereals in the last decade were: Wheat, 57.9 per cent.; oats, 13.5 per cent.; buckwheat, 60.8 per cent.; barley, 60.1 per cent.; rye, 47.4 per cent.; and corn, 40.4 per cent. Since 1890 the total number of orchard trees in the State has increased from 1,767,005 to 3,314,232. Of this increase, 49.8 per cent. has been in plum and prune-trees, and 32.2 in apple-trees. Small fruits, vegetables, and sugar-beets showed a satisfactory increase.

In 1900 15,434 acres devoted to hops produced 14,875,571 pounds. The hop production for 1902 was unofficially estimated at 80,000 bales, which would add $2,500,000 to the wealth of the State.

The salmon product of Columbia river and the coast streams for 1901 amounted to 21,123,739 pounds. Of this amount, Columbia river, State of Oregon side, yield 87.2 per cent.; Idaho, 7.3 per cent.; and waters of the State also yield sturgeon, shad, smelt, catfish, tomcod, bass, herrings, flounders, perch, and carp. Of those species, the product for 1901 amounted to 572,900 pounds. The yield of oysters, clams, and crab fish was 837,550 pounds.

The growth of manufacturing industries along the rivers and the attention given to land irrigation has resulted in the building of barriers, dams, and other obstructions that prevent the salmon from ascending the rivers to their spawning grounds, and restrict the feeding areas of the young fish, which remain several months in fresh water after being hatched.

The estimated value of the salmon pack for 1902 was $2,500,000.

The fruit-crop for 1901 was the best in the history of the State, and was valued at $2,375,000; that of 1902, falling somewhat below the high mark, still yielded $2,539,000. Apples and prunes were the largest and received production, each yielding more than $800,000. The finest Oregon fruits are shipped to the Atlantic States, England, and France. Large sales of prunes were made this year to French buyers, owing to the almost total failure of the crop in France.
The Food and Dairy Commissioner's biennial report shows the value of the butter and cheese output in 1902 to be $1,897,000. Of creamery butter 4,000,000 pounds were produced; 3,500,000 pounds of dairy butter; and 2,252,000 pounds of cheese. The output has increased 50 per cent. in two years. Cheeses are sold in California at an advance of 3 to 5 cents a pound over the native product. Butter is sold along the Alaskan coast. Economical administration of the department resulted in a saving of $1,500 out of the $7,800 appropriated by the Legislature.

At the end of October approximately 10,000 tons of beets had been cut, and the sugar product amounted to 23,000 sacks, with a further product of 2,000 sacks made from brown sugar. This yields 2,500,000 pounds of high-grade sugar.

In May $15,119.55 were disbursed to the various counties of the State, this amount being the 5-per-cent. fund derived by the State from the Government in the sale of public lands within the State for the year ending June 30, 1901. The division of the fund is made in proportion to the respective acreage of the counties. Multnomah County, with one-fourth the population of the State, received the smallest amount, only $69.90, since its area is but 211,120 acres.

These improvements are noted by C. H. Mclsaac, secretary of the Manufacturers' Association, who estimates the value of goods made in Oregon in 1901 to be about $30,000,000. Portland manufacturers furnished the Pacific-coast towns. The value of the output of woolen-mills in 1901 was more than $1,000,000. The ship-building industry has doubled in ten years. Exports of sashes, doors, blinds reached the value of $1,000,000 in 1901.

The people of western Oregon are giving increased attention to grazing, believing that their section is better adapted for the production and maintenance of live stock than for either fruit-growing or general farming. The shortness of the season does not afford the farmer time to develop his crops, and makes it difficult for him to compete with sections of the country where conditions are more favorable. The plentiful rains which last late in spring and come early in fall, provide the crops ample for the maintenance of large herds. The recent rapid growth in the dairy industries and the production of beef and pork for exportation attest the worth of this change in direction.

The output of gold in Oregon in 1902 amounted to $1,860,465; that of silver, $63,500.

Insurance.—The annual report of the Secretary of State as ex officio Insurance Commissioner, issued on April 1, showed that there were doing business in Oregon 59 fire and marine, 35 life and accident, 6 plate-glass, and 2 steam-boiler insurance companies, and 9 surety companies. Under the law requiring the payment of a 2-per-cent. tax on net premiums, $83,988.40 were collected. Licenses amounted to $5,927.36. Prior to 1901 the receipts from insurance companies went into the common-school fund, but an act of the Legislature of that year directed that this money be turned into the general fund.

Education.—In 1902 there were 138,466 children of school age in the State, an increase of 2,648 over the previous year: The number enrolled in the public schools was 100,659, an increase of 9 per cent. over the previous year. The number of students coming from other states this year to avoid the tax at the Agricultural College, at Corvallis, was 488, an increase of 52 over the previous year. Of this number, 29 students come from the State of Washington. The total enrollment for 1902 at the State Agricultural College, at Corvallis, was 100,659, an increase of 9 per cent. over the previous year. Of this number, 29 students come from other states. The tax to the Agricultural College, at Corvallis, was $488, an increase of 52 over the previous year. Of this number, 29 students come from other states. The tax paid by the Agricultural College, at Corvallis, was $488, an increase of 52 over the previous year. Of this number, 29 students come from other states.

The number of pupils registered Nov. 8 was 11,799. A statement from the Secretary of State shows that Oregon has raised in taxes for the State University and the Agricultural College in the past fourteen years $709,001.32; in addition to this, $220,359.18 accruing from the interest fund gives a total of about $930,000, as the cost of these institutions. The amount raised by taxes in 1901 was $183,717.08. A scarcity of teachers was reported by the Superintendent of Education, owing to the fact that teachers' wages had not kept pace with the increased wages in other occupations. Young men particularly have abandoned teaching in the past few years. The average wage of male teachers is $47.58 a month; of female, $37.61 a month. These amounts are an increase of a little less than $2 over 1901, but the cost of living has increased in a higher proportion.

The illiteracy statistics of the Census Bureau shows that 99.38 per cent. of the children of Oregon between ten and fourteen years of age were able to read and write in 1900. This places Oregon third in the Union in this respect.

Indian-War Veterans.—The veterans of the Indian wars of 1865–66 have petitioned the Legislature for $500 a month for life, as was asked that bonds be issued to that amount on the credit of the State. The Constitution specifies that the Legislative Assembly shall not create any debt or liabilities which shall, singly or in the aggregate, with previous debts or liabilities, exceed the sum of $50,000, except in case of war, or to extinguish or meet the insurrection. It is maintained that this provision of the Constitution is inapplicable in the present case, since the obligation to the volunteers was assumed under Territorial law, and the Federal Constitution prohibits any State making a law that shall impair the validity of contracts. The contrary argument maintains that, if the obligation is not already outlawed by the statute, it is binding upon the National Government, since Oregon was a Territory at the time and a State when the debt was incurred, and to the Government of the United States a fourth part of the pay offered to volunteers, which was at the rate of $2 a day. The petition, which has received signatures in all parts of the State, assumes that the United States will redeem the $300,000 bonds.

Rivers and Harbors.—At the first session of the Fifty-seventh Congress the bill passed providing for work on rivers and harbors contained an appropriation of $2,589,000 for Oregon and Columbia river. The annual report of the Chief of Engineers relative to Oregon river and harbor works contains the following as most important among its items: The amounts expended on projects of 1884 and 1893 toward the improvement of Columbia river at its mouth was $81,987.75; that expended on the present project $2,474.47: making a total of $2,202,227.61 to the 30th, 1902. Work carried on last year has been done with the view to facilitating early operations under additional appropriations, such as repairing the washed-away parts of the tramway and making surveys to determine changes in the course of the river channel. Two hundred and forty thousand dollars was appropriated toward the "Portland-to-the-Sea" project, which proposes a 23-foot channel to the sea by construction of controlling works, etc. Portland had about 750 more school-children in 1902 than in 1901; the number of pupils registered Nov. 8 was 11,799.
accessories, and $50,000 for maintenance. Dredging at various shoal places was the only work done in the year. The channel depth between Portland and Astoria has been increased 5 feet, with good navigable width. The maximum depth that could be carried on June 30, 1902, at mean low-water over the shallowest part of the river was about 19 feet.

The Navigation Committee of the Chamber of Commerce of Portland reported in January the unsatisfactory condition of the pilot and towage service at the mouth of Columbia river. The pilotage is all done by 9 men, who pool their earnings and control a pilot schooner, which they monopolize. They pay 10 per cent. of the pool's earnings to the Oregon Railroad and Navigation Company, which were destroyed, and recommends that the pilot commissioner grant licenses to all applicants who prove themselves competent, and also appoint a competent man to keep a register of pilots.

Fire and Frost.—Destructive forest fires occurred in September in Oregon and Washington, involving a total loss of $12,767,100 as estimated by the U. S. Forest Service. Of this amount, $9,510,000 was sustained by Oregon. The estimate includes the value of timber, farm property, and sawmills and other property which were destroyed. Eighty-six families were made homeless and 200 others suffered partial losses. Farm property worth $215,000 and sawmills aggregating $149,000 were burned. The burned area covered 170,000 acres, and 2,124,000 feet of standing timber was destroyed. Unextinguished camp-fires of berry-pickers and hunters, the careless burning of slashings, and in one instance the sparks from a locomotive, were the causes. The Cascade forest reserve, which is patrolled by rangers, escaped damage.

Severe frosts occurred in February, with hail damage to winter wheat. Umatilla County suffered to the extent of 100,000 acres killed, necessitating reseeding.

Legal Decisions.—In a suit to restrain public officers from collecting interest as part of a claim against a suspended bank where public funds had been deposited, the Supreme Court ruled that it is a felony for a public officer to loan public funds, and that this does not inhibit a mere deposit in a bank for safe-keeping, the money being at all times subject to order. Where funds so deposited are lost by the failure of the bank, the claim against the bank becomes a personal one when the officer makes the loss good from his personal funds, and until this is made good the claimant has no right to interest.

Bail Bonds.—Between March, 1901, and June, 1902, the appropriation of $50,000 by the Legislature of 1901 for the payment of coyote-sculp bounties was exhausted, and additional elections were held at the request of the Indians and allowed. At the present rate, the bounty law will cost the State $117,107 in two years. The law requires the counties to pay one-third of the bounty; but Baker County decided to discontinue the payment of the bounty on the ground that the destruction of the coyote removes the deadly enemy of the jack-rabbit, whose ravages to crops are worse than those of the coyote.

Public Lands.—In the first nine months of 1902 the receipts from payments on State lands amounted to $264,636.21. Of this amount, $240,937.85 resulted from the sale of school lands alone; the remaining $23,698.36 was received from sales of land taken on foreclosure of mortgage loans from the school fund. Nearly all the school land disposed of is sold on the installment plan, one-fifth of the purchase price being paid down, the remainder drawing interest at the rate of 6 to 8 per cent.

Two classes of public land exist in Oregon—Government land and State land. Government land is further classified as agricultural, timber, desert, or mineral, with specific terms for the acquisition of each; State land, though similar to the Government land, is acquired at the uniform rate of $1.25 an acre.

About 6,000 square miles in the Strawberry and Blue mountain regions of eastern Oregon have been temporarily withdrawn from settlement or entry of all public lands, with a view to their ultimate creation into a forest reserve. This action is taken not only to secure adequate water-supply and protection against forest fires, but to secure an adequate water-supply and storage and conservation in view of the increasing number of irrigation projects.

Indians.—The Indian appropriation bill passed by Congress in February contained $104,650 for the school at Chemawa, of which $91,850 goes to the support of the 550 pupils, $1,800 for the superintendent's salary, $6,000 for sewerage, and $5,000 for general repairs.

The Indians of the Umatilla reservation refused to obey the orders of Indian Commissioner Jones that they should cut off their long hair and lay aside their brilliant blankets for the clothes of the whites, looking upon the order as an infringement of their legal rights. They cite the case of an Indian who a few years ago recovered $200 damages for the loss of his hair, upon order of the Court of Indian Offenses, as a penalty for drunkenness.

Labor Day.—The first Labor Day proclamation in the history of Oregon was issued by Gov. Geer, Aug. 13.

Political.—The election of State Officers in June resulted in a Republican victory for all nominees but that of the auditor. In this case, George E. Chamberlain, the choice of the Democrats, won by a narrow majority. The other officers elected are as follows: Supreme Judge, Robert E. Bean; Secretary of State, Frank I. Dunbar; State Treasurer, Charles S. Moore; Superintendent of Public Instruction, J. H. Ackerman; Attorney-General, A. M. Crawford; State Printer, J. W. Whelan; Representatives to Congress, Thomas H. Tongue and J. N. Williamson. The vote on a proposed amendment to the State Constitution, providing for the initiative and referendum, was carried by a vote of 92,924 in favor to 5,608 opposed.

The platform adopted by the Republicans at their convention, April 2, contains the following planks: A demand and insistence upon the passage by Congress of the Mitchell-Kahn Chinese exclusion bill; a recognition of the right of labor to organize and combine for mutual protection under the law, and that the Labor Bounties and the Legislature enact all necessary legislation to protect labor in all its rights and privileges, with a further recommendation that Congress create a
department of labor in charge of a secretary, with a small staff in the Cabinet; and demand that the next Legislature pass a law placing all public officers of the State upon reasonable salaries, not to be increased during incumbent's term of office, and a prohibition of any further compensation or fees; a call for the creation of a mining bureau to promote the development of the mineral resources of the State; a recommendation to Representatives and Senators to endeavor to secure the speedy opening of Columbia river between The Dalles and Celilo, the clearing of all obstructions in the river from its mouth to the head of navigation, and the improvement of coast harbors and streams within the State; a protest against the entanglement of any plan, scheme, or proposition for leasing the public domain either to individuals or to corporations, believing that the public lands should be held in trust for the use and benefit of all the people under the homestead laws; a request for legislation to foster and support the fishing industries; a demand and insistence upon the passage by Congress of the Grout oleomargarine bill; a declaration of approval of the primary law passed by the Legislature in 1901, and a request that it be extended so as to apply to primary elections in all election precincts throughout the State; a recommendation that United States Senators be elected by popular vote.

The convention passed resolutions urging upon Congress immediate action on the bill to pension Indian war veterans of Oregon and Washington. The convention grants to Socialists a party may be seen by a comparison of the vote for President in 1900 with the vote this year for Secretary of State, viz., Socialist vote in 1900, 1,406; in 1902, 5,529. The prohibition vote increased from 2,530 in 1900 to 4,835 in 1902.

The plank relating to salaries of State officers brings again into notice a matter that has been agitated for a number of years at each succeeding election. The Constitution of the State, framed when there were hardly 50,000 people in Oregon, fixed a limit to the salaries of officials. The salaries of the Governor, for instance, is $1,500. In recent years no men could be found to serve for the small salaries named by the Constitution, and these amounts have been increased by allowances and fees passed by successive Legislatures as compensation for "extra services." The Governor actually receives $4,250 per annum, and for clerical assistance he has $1,200; his secretary receives $1,200. The most recent Governor, in order to force the Legislature to fix reasonable salaries for all officers of the State, threatens to veto any measure providing for fees or perquisites; and, moreover, insists that, should the Legislature not repeal the laws now in force which give fees to State officers, he will take whatever may be necessary to prevent the collection of the money allowed by law in violation of the Constitution.

The initiative and referendum amendment to the Constitution was passed at the November election. Every bill for an act must be introduced with the words "Be it enacted by the people of the State of Oregon." If the bill meets the approval of the people, it may stand as law after the Legislature enacts it; if they disapprove, they may reject it under the referendum clause of the amendment. Moreover, should the Legislature fail to pass any law that the people want, they can place it themselves at the polls. The same power which enables the people to pass a law also enables them to amend the Constitution independently of Legislative action. By the amendment just voted, it only requires that any proposed amendment shall receive, in order to become a part of the Constitution, a majority of all the votes cast in reference to it, instead of as formerly was the case, a majority of the votes cast at the election. The minority rule in cases of the application of the referendum, for it requires but 5 per cent. of the voters to compel the submission of a measure enacted by the Legislature. The consequence is, that an act which really meets with favor from a majority of the voters may be held up as long as eighteen months because 5 per cent. of the voting population wish to express their opposition.

Pennsylvania, a Middle State, one of the original thirteen, ratified the Constitution Dec. 12, 1787; area, 45,215 square miles. The population, according to each decennial census, was 434,373 in 1790; 602,365 in 1800; 810,091 in 1810; 1,047,507 in 1820; 1,348,233 in 1830; 1,724,033 in 1840; 2,311,786 in 1850; 2,906,215 in 1860; 3,321,851 in 1870; 4,392,891 in 1880; 5,328,014 in 1890; and 6,302,115 in 1900. Capital, Harrisburg.

Government.—The following were the State officers in 1902: Governor, William A. Stone; Secretary of State, John N. Gunther; Lieutenant-Governor, George J. H. Zink; Attorney-General, William T. Galloway; Auditor-General, E. R. Hardenbergh; Treasurer, James E. Barnett; Auditor-General, E. R. Hardenbergh; Adjutant-General, Thomas J. Stewart; Superintendent of Public Instruction, N. C. Schaeffer; Insurance Commissioner, Israel W. Durham; Commissioner of Agriculture, John Hamilton; Commissioner of Forestry, J. H. Rothrock; Dairy and Food Commissioner, Jesse Cope; Zoologist, H. T. Fernald; Factory Inspector, James Campbell; Veterinarian, Leonard Piorson; Librarian, George E. Reed; Superintendent of Public Buildings and Grounds, T. L. Eyre; Chief Justice of the Supreme Court, J. B. McCollum; Associate Justices, J. Hay Brown, James T. Mitchell, William P. Potter, John Dean, D. Newlin Fell, and S. L. Mestrezat; Prothonotaries, Charles S. Greene, William Pearson, and George Pearson; Justices of the Supreme Court, C. E. Rice, J. A. Beaver, William D. Porter, George B. Orlady, P. P. Smith, William W. Potter, and John Tin Mitchell. N. C. Schaeffer and Judges McCole are Democrats; the others are Republicans.

The Governor, Lieutenant-Governor, and Secretary of Internal Affairs are elected in even-numbered years for a term of four years; the Treasurer in odd-numbered years for a term of four years. The Secretary of the Commonwealth, the Attorney-General, and the Adjutant-General are appointed by the Governor at pleasure, and the Superintendent of Public Instruction for four years. The Legislature holds biennial sessions beginning in January of odd-numbered years; Senators are elected for four years, and Representatives for two years.

Finances.—In September, 1901, the Treasurer reported a balance in the general fund of $10,767,950.54. The public debt, Dec. 1, was $30,815,232. The appropriations for 1900 and 1901 were more than $50,000,000, or $7,017,756.78, and for 1902 to $13,975,877.46. The receipts at the treasury for July, 1901, were $17,127,432; total expenditures, $10,609,280; surplus, $6,518,152. The tax assessment of the State, including the general and sinking funds, $7,706,022.18. The amount collected and expended for the support of the poor was $2,346,732; construction and repair of streets $410; maintenance of common schools, not including the money received from the State treasury.
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$13,001,441; for other purposes, $30,856,147; total amount of taxes collected for all purposes, $58,740,731. Personal property yielded a tax of $462,215.

Valuation.—The value of all real estate Nov. 30, 1901, was $3,518,593,792, including both taxable and exempt from taxation, the valuation of personal property taxes in the county being $1,225,401,732. The aggregate value of all property subject to taxation for county purposes was $3,063,047,223, and the amount of tax derived therefrom $23,310,707. The aggregate value of property subject to State taxation was $761,337,604, from which the State derived a tax of $3,055,208.

Education.—In the year ending June 2, 1902, the number of pupils in the public schools was 1,165,309; teachers employed, 30,640; directors in charge of schools, not including Philadelphia, 15,269; graded schools, 17,102; superintendents, 139. The average daily expenditure was $16,183,712.83; cost of text-books, $825,477.77; total expenditure, $23,027,678.22; State appropriation for the school year, $3,530,000. The average number of teachers paid to teachers, $11,031,871.38; cost of text-books, $825,477.77; total expenditures, $23,027,678.22; State appropriation for the school year, $3,530,000.

Building and Loan Associations.—For 1901 and 1902 the number of building and loan associations in Pennsylvania was returned as 1,115, with a capital of $781,980,000, and assets amounting to $11,403,510. For 1901 and 1902 the number of associations is given as 1,188; membership, 290,573; assets, $11,517,281. Pennsylvania has a large number of the old-time associations that served the local communities so well for many years.

Banking.—The annual report of the Banking Department for 1901 shows the number of State banks to have been 107; trust companies, 158; savings institutions, 16; total, 278, an increase of 50 since 1900. The increase for the year of cash on hand was $13,373,072.92; increase of loans, $54,233,104.56; increase of investments, $24,885,183.41; increase of capital, $15,135,580.17; increase of surplus, $11,476,022.82; increase of undivided profits, $5,867,757.85; increase of deposits, $76,003,989.30. The amount of trust funds invested was $483,919.04; uninsured, $12,082,651.97; total, $50,586,502.04. The average deposits in each deposit, for all institutions, was $516.03; the number of deposit accounts was 936,319.

Insurance.—From the annual report of the Insurance Commission it appears that in 1901 the companies of the State issued 9,551 policies, insuring $26,198,743 upon the lives of residents of the State, an increase over the preceding year of 471 policies and $2,655,772 insurance. Companies of other States issued 654,415 policies in this State, insuring $296,292,735.12, making an aggregate by all companies of 664,366 policies, insuring $298,482,751.12, an increase of 7,472 policies and $1,753,303.12 insurance. The total of losses paid by all life companies in this State in 1901 was $14,161,740.61, of which home companies paid $1,797,864.16, and companies of other States $12,363,885.45. Pennsylvania companies had in force at the close of 1901 200,850 policies, insuring $491,044,590, against 175,024 policies, insuring $446,206,204 at the close of the year 1900, a net premium income of $18,785,725.67, against $17,148,353.82 in 1900. The total income from all sources was $24,064,016.84 in 1901, against $21,537,978.38 in 1900, being $2,942,441.88. Companies of Pennsylvania life companies in 1901 were $15,175,770.84, of which $10,341,534.12 was paid to policyholders. The entire income of assessment life companies of Pennsylvania for 1901 was $149,121.89. The expenditures were $134,491.33. The assessment companies of other States doing business in this State, and reporting, showed in 1901 a total income of $15,910,371.70 and expenditures amounting to $18,806,609.80. The fire and marine companies in 1901 numbered 32, with assets of $43,985,119; liabilities, $25,209,980; capital, $10,902,675; surplus, $6,382,334; total receipts, $31,901,647; losses paid, $11,832,381; dividends paid, $1,813,581; total disbursements, $26,779,989; risks in force, $2,862,180,526.

Railroads.—The statistical report of the president of the Pennsylvania Railroad for 1901 showed that the road was never in better financial condition. With all the improvements made and $5,000,000 set aside for others, the company was able to declare its regular 5-per-cent. dividend and an extra dividend of 1 per cent. It also ordered to be built 19,000 new cars. The gross earnings of all lines east and west of Pittsburgh for 1901 were $186,852,578, an increase over 1900 of $20,892,754. The net earnings were $64,913,491, an increase over 1900 of $10,175,414. After all expenses and deductions there was a balance of $10,857,972, which was distributed among the stockholders in a 6-per-cent. dividend. In 1902 the company made a substantial advance of wages to its employees.

Industries.—Pennsylvania produced 7,564,295 gross tons of pig-iron in 1901, an increase over 1900 of 992,607 tons. The market or realized value of the production for 1901 was $106,883,000, against $108,544,923 in 1900. The average yearly earnings for all wage-earners, skilled and unskilled, $528.24, was an increase over 1900 of $47.74.

The production of 7,950,720 gross tons of all kinds of steel for 1901 was an increase over 1900 of 1,702,945 tons. The 4,319,144 tons of Bessemer was an increase over 1900 of 830,575 tons. The production of 1,401,276 net tons of iron in 1901 was an increase over 1900 of 208,434 tons.

The capital invested in the tin-plate works manufacturing their own black plate was $10,525,000 for 1901, an increase over 1900 of $753,112. The production of 435,628,000 pounds of black plate for tinning was an increase over 1900 of 123,628,000 pounds.

Fourteen firms or owners in the State had active cement plants in 1901, with a capital invested of $19,271,981; and a total production, based on barrels, of Portland, natural, and improved cement, of 7,055,669, the market or realized value of which was $7,334,891.

In 1901 Pennsylvania had 200 active tanneries. The 12 bituminous coal districts of the State in 1901 produced 8,914,239 tons of coal. The 8 anthracite districts have more than 30,000 more employees than the 12 bituminous districts, though the bituminous districts have more mines and produced more coal. The production of anthracite coal as the greatly increased ratio of machinery and cost in all departments is accounted for by the difficulty in mining anthracite compared with bituminous coal.

Coal-mining in 1902 was seriously interrupted.
by the great strike of miners in the anthracite region. (See STRIKE OF THE COAL-MINERS.)

About 70 per cent. of the entire coke product of the state of Pennsylvania, which, in 1901, produced 14,355,917 short tons, an increase of nearly 1,000,000 tons over 1900.

Charities and Corrections.—On Sept. 30, 1901, the number of insane under commitment was 11,748, of whom 6,121 were men and 5,627 women. At the corresponding date in 1900, the aggregate number of insane in all institutions in Pennsylvania was 11,249, an increase of 499. The private institutions and sanitariums contained 729 patients at the close of the year, 290 of whom were men and 439 women. Of the insane persons, in all classes of institutions, on Sept. 30, 1901, 11,380 were white and 368 colored.

The number of convicts in the penitentiaries Oct. 1, 1900, was 1,911; to which were added in the year 1901, being 23 more than the commitments of the previous year. Number discharged, 1,040; leaving on Sept. 30, 1901, 1,955, being 316 fewer than at the corresponding date of the previous year. The number of juvenile delinquents residing in the reformatories on Sept. 30, 1901, was 1,459, a decrease of 34 from the number at the corresponding date of the previous year. Of the 724 convicts committed to the penitentiaries in 1901, 518 were convicted of crimes against property, and 206 of crimes against persons.

Lawlessness.—Besides the numerous acts and outrages of violence during the coal strike of 1902, other deeds of lawlessness were reported. At the end of January 2 murderers, under sentence of death, escaped from the jail at Pittsburg by overpowering and binding the guards. They were assisted in escaping by the wife of the ward, who fled with them, and was herself injured, by the officers who killed the convicts while they were resisting recapture.

At Chester, in February, a mob attacked the police station in an attempt to Lynch a negro who had killed a policeman. The attack of the mob was repelled by the police.

In June a mob at Harrisburg stoned the police and aided a negro prisoner to escape from their custody.

In September riots occurred at Lebanon, growing out of labor troubles, and it required the presence of militia to quell the disturbances.

Mining Disaster.—More than 100 men lost their lives in July at Johnstown, through an explosion in the mine where they were at work. The explosion was caused by fire-damp, and all but a few of the deaths were due to effects of the after-damp.

The New Capitol.—The contract for building the new State Capitol has been executed, and ground was broken in November. The cost agreed upon was $3,503,656.

Political.—The Republican State Convention, which met in Harrisburg, June 11, nominated for Governor Samuel W. Pennypacker, of Philadelphia, whose chief competitor for the nomination was John P. Elkin, Attorney-General of the State. The other State officers nominated were William M. Brown for Lieutenant-Governor and I. B. Boren for Secretary of Internal Affairs. The platform declared heartily approval and support of President Roosevelt, and pledged the convention to his nomination in 1904; it favored immigration laws whereby anarchy shall be driven from this country and the American working man be protected against unfair labor from abroad; and it approved the recommendation of President Roosevelt that the United States should enter into reciprocal trade relations with Cuba. The Philippine policy of the Government was strongly commended; adherence to the protective policy was demanded "in so far as it protects and tends to develop the industries and interests of the American people"; and the convention recommended "proceedings to check the growth of unlawful combinations intended to raise the price of commodities at the expense of the consumer."

The State Convention of the Democrats was held in Erie, June 25. Robert E. Pattison, who twice since 1863 had been elected to the office, was nominated for Governor, George W. Guthrie for Lieutenant-Governor, and James Nolan for Secretary of Internal Affairs. The platform was restricted to State issues, ignoring all national questions. Important bill drawn by him was the first from the State from the evils of lobbying, bribery, corrupt franchises, "pinch" legislation for blackmailing, etc., was promised in the event of Democratic success at the presidential election of 1904. In the minor ticket the Democratic candidates were endorsed.

The candidate of the Socialist-Labor Party for Governor was William Adams, the Prohibitionists nominated S. C. Broome. There were 114 Republican minor tickets in the field. The tickets nominated by the Union party at rival factional conventions were both declared invalid by a legal decision. Owing to lack of official backing the ticket of the State Committee of the People's party announced, on Sept. 30, the withdrawal of that party's ticket.

At the November election Judge Pennypacker was elected Governor by a plurality of 156,410, and the other Republican candidates received large majorities, while a Legislature was elected with 144 Republican majority on joint ball; three-fourths of the congressional delegation elected are Republicans.

A commission appointed by the Legislature of 1901 to compute the vote cast at the November election of that year for State Treasurer was announced in January, 1902, that Frank G. Harris was elected to that office by a vote of 435,040 and a plurality of 45,570 over E. A. Coray, the Fusion nominee. Mr. Harris assumed office December 1, 1902, to serve for two years.

A noteworthy event was the retirement, at the close of the last Congress, of the venerable Galusha A. Grow, of Pennsylvania, at the age of seventy-nine, after a public career of more than half a century. In the early days of the civil war he served with success as Speaker of the House. The first important bill drawn by him was the first homestead act giving land to actual settlers of Government territory. He retired from Congress in 1863, and was returned to the House thirty years afterward as Congressman at large. In this capacity he has served his State for ten years.

RHODE ISLAND, a New England State, one of the original thirteen, ratified the Constitution May 29, 1790; area, 1,250 square miles. The population, according to each decennial census, was 68,825 in 1790; 99,222 in 1800; 76,931 in 1810; 83,015 in 1820; 97,199 in 1830; 108,580 in 1840; 147,545 in 1850, 136,040 in 1860; 276,531 in 1880; 345,506 in 1890; and 425,536 in 1900. Capital, Providence.

Government.—The following were the State officers in 1902: Governor, Charles Dean Kimball;
Lieutenant-Governor, George L. Shepley; Secretary of State, Charles P. Bennett; General Treasurer, Walter A. Reed; Attorney-General, Charles F. Stearns; Auditor and Insurance Commissioner, Charles C. Gray; Commissioner of Education, Thomas B. Stockwell; Adjutant-General, Frederick M. Sackett; Railroad Commissioner, E. L. Freeman; Commissioner of Industrial Statistics, Henry E. Tiepke; Record Commissioner, R. Hammett Tilley; Factory Inspectors, J. Ellery Hudson, Helen M. Jenks; Surgeon-General, George H. Kenyon; Inspector of Beef and Pork, James R. Chase; Inspector of Lime, Herbert Harris; Commissioners of Sinking Funds, John W. Danielson and Henry B. Metealf; Inspector of Cables, S. B. Hoxsie, Jr.; Inspector of Scythe Stones, W. H. Comstock; Chief Justice of the Supreme Court, John H. Stinnes; Associate Justices, Parlon E. Tillinghast, George A. Wilbur, Horatio Rogers, W. W. Douglas, Edward C. Dubois, and John T. Blodgett; Clerk, B. S. Blaisdell. All the State offices were Republican.

Charles Dean Kimball, elected Lieutenant-Governor, succeeded Gov. William Gregory, who died on Dec. 16, 1901. George L. Shepley, having duly qualified, as the Deputy Chief Executive of the State, took the oath of office as Lieutenant-Governor on Feb. 18.

The State officers are elected annually in November, and begin their terms in the following January. The Legislature holds annual sessions, beginning in January. The length of the sessions is not limited, but the legislators can draw pay for only sixty days.

Legislative Session.—On the last day prior to the recess, April 4, the following laws were passed: A ten-hour law for street-railway employees, a free transfer-ticket act, a fifty-eight-hour law for women and children.

A law was passed providing for the building of State roads, and in pursuance thereof the State Board of Public Roads was organized on April 16. The "merger" bill was passed, creating the Rhode Island Company, which is expected to acquire and control the local traction, gas, and electric lighting corporations.

The divorce law, as amended by the General Assembly, went into effect on July 1. It requires of petitioners a domicile in the State of more than two years, instead of one year as before, and contains several other provisions tending to render divorces more difficult.

Amendments of the Constitution were submitted to the electors, the most important of which were Article XII, relieving the Governor and Secretary of State, respectively, from the duty of presiding over and keeping the records of the Senate, and Article XIII, securing to the minority party in the city of Providence a representation in the Legislature through the election of Assemblymen by wards or voting districts, in the same manner that aldermen or councilmen are chosen. These articles were ratified at the November election.

Judicial Decision.—One of the most important opinions from the United States Circuit Court for the district of Rhode Island in recent years was given by Judge Arthur L. Brown on the subject of the condemnation of lands in the town of Jamestown for Government purposes. The plaintiffs, James W. Newlin and Annie Ruff, owned neither the land taken by the United States nor the land adjoining it. But as the restrictive provision of the deeds of land in the Ocean island plat (including their lands and the lands appurtenant to, and necessary for the operation of any slaughter-house, forge, places for selling or compounding liquors, etc., on the plat, they contended that their restrictive rights and "negative easements" were destroyed; and, furthermore, if the United States should abandon its use of the lands taken and convey its title to private individuals, its grantees would have the right to carry on any of the offensive trades mentioned in the Highland deeds. The claim for compensation was about $350,000. Judge Brown held that the claimants had no property rights under their deeds to prevent such a use as the United States intends to make of the lands. "There is a clear distinction," he said, "between injurious acts done by private individuals for their own benefit and working injurious consequences, and acts, perhaps equally injurious, done for a public purpose in the execution of a public duty."

Industries.—The Providence Ice Company, which was organized over a year ago, and which took up the active operation of the majority of the ice interests in Providence about Jan. 1, has been absorbed by the New England Consolidated Ice Companies, the capitalization of which is $14,000,000. The new company is made up, to a considerable extent, of the same men who were identified with the organization of the Providence Ice Company.

The American Screw Company, of Providence, has absorbed the Massachusetts Screw Company, of Holyoke, Mass. The new plant will be removed to Providence and run in connection with the two large plants that the company already operate there. The producing capacity of the new plant will be at least 200,000 gross daily, though it is far smaller than either of the plants already in operation.

The largest foundry in the State is being erected by the Brown & Sharpe Manufacturing Company. The buildings will cover an area 360 by 380 feet. When the foundry is completed, 300 men will be added to the 2,000 already employed.

The census report shows Providence to be first in jewelry, silverware, and screw, and second in worsted goods, oleomargarine, and files. The other towns of Rhode Island compare favorably in special industries among the leading manufacturing centers of the nation, Pawtucket ranking seventh and Warwick tenth in cotton goods, Attleboro fourth and North Attleboro fifth in jewelry.

Coal.—Coal was discovered at Phillipdale, East Providence, some years ago. But the mine was neglected until the recent high price of coal made mining in this locality advisable. The mine has been proved to contain an abundance of good hard coal, and mining will be undertaken on an extensive scale as soon as the engine which has been erected has pumped out the water.

The Cranston coal-mine, which has been worked at intervals since 1864, is also about to be developed by the New England Briquette Coal Company, which has erected an extensive plant. All Rhode Island coal findings are said to develop better coal the deeper it is obtained from the surface.
Real Estate.—A summary of real-estate transactions in Providence and Pawtucket, based on the Providence City Hall records, reflects the general prosperity of the community. Conveyances show a gradual increase for the past five years, 1901 being 20 per cent. in excess of 1897. Real-estate mortgages, though fewer in number and amount in 1901 than in 1899, gain 5 per cent. in number and 11 per cent. in amount over 1898, and exceed those of 1900 by $50,000, excluding several trust mortgages recorded in that year. Discharges of real-estate mortgages show an increase of 14 per cent. in number and 30 per cent. in amount over 1893. Chattel mortgages were larger than in 1900, but were less than in 1896 by 20 per cent. in number and 22 per cent. in amount. There were 2,580 real-estate conveyances recorded in 1901. The total number recorded in 1900 was 2,375.

A total gain of $5,071,140 in the real and personal property valuation of Providence was reported by the tax assessors, whose labors for the year were completed Sept. 2. Of this total gain $3,177,920 was in real estate and $1,893,220 in personal property, a contrast to the valuation of 1898 in which the gain in real estate was $2,439,100, and a loss in personal property of $1,764,480.

Insurance.—In his report for the year, dated Feb. 15, 1902, the Insurance Commissioner recommended the creation of the office of State fire marshal, and urged other reforms. The report gives a summary of the condition of Rhode Island stock companies, which shows that while their admitted assets have increased by $41,455, their liabilities have increased by $256,631, and their surplus shows a decrease of $215,176. The report shows that 60 per cent. of the total amount of premiums collected in the State from both fire and marine business last year was paid for losses. The report contains a statement of the condition of other insurance companies doing business in the State, showing a decided improvement over the figures of the preceding year for United States branches of foreign fire-insurance companies, the percentage of losses incurred being materially reduced. The business of the mutual fire companies shows a decrease of $86,198,257 in the amount of risks written, $422,813 in the amount of premiums earned, and an increase of losses incurred of $104,109. The business in the mutual fire companies of other States reporting shows an increase of more than 100 per cent. in the figures of 1901.

Education.—The school census shows a material gain over the figures of 1901. The enumeration was as follows: Public schools, 25,207; Catholic schools, 4,589; select schools, 583; no school, 3,922; total enumeration, 34,922. This was a gain over 1901 of 4.8 per cent. The attendance showed a gain of 4.5 per cent. in the public schools, of 9.1 per cent. in the Catholic schools, and 21.7 per cent. in the select or private schools. The number attending no school was exactly the same in 1901, viz., 3,922.

The Rhode Island Institute of Instruction held its annual meeting in Providence, Oct. 23, 24, 25, and attracted more than the usual number of visitors from the New England and Atlantic States. The proceedings were of more than ordinary interest, the exhibit of educational methods being particularly important.

Brown University.—The opening of the academic year, Sept. 17, was marked by a large number of new courses of study, showing a wider range and broader selection in electives than heretofore; among them a new course in mineralogy, a course of research work in economic problems, in which the laboratory method is applied to the study of a new course in Greek and Roman life, and several new courses in history and advanced German. Extensive additions were made during the summer to the equipment of the chemical laboratory. The entering class was the largest in the history of the institution.

The university received $100,000 from the estate of George L. Littlefield for the establishment of the George L. Littlefield professorship. All the estate, exceeding $500,000, was to go, after certain bequests were paid, to Brown University to establish a fund to be known as the George L. Littlefield fund.

At the beginning of the year John D. Rockefeller offered to give the college $75,000 for a building for social and religious purposes, provided $25,000 were raised before the next commencement. This sum having been collected, a suitable site on the university ground was selected for the building.

Rhoene Island Hospital.—The deficiency account of the hospital stood at $110,815.07. This was the excess of the expenditure over the income since Sept. 30, 1899. The patients admitted in 1901—02 numbered 3,282. The hospital received a bequest of $4,000 from the George L. Littlefield estate.

Harbors.—By the river and harbor bill Rhode Island secured $100,000 for improving Point Judith harbor, $30,000 for a harbor of refuge at Block island, and $50,000 for Great Salt Pond harbor, Block island.

The work on the naval coaling station at Portsmouth Grove was so far advanced in December that it was expected to be in commission next summer. The framework for the great steel shed was already in place. The pier was built and used as a landing-place for material, and the work of putting on the T-head was in progress. Along this head there will be room for the largest and heaviest ships of the navy to be tied up.

Foot and Mouth Disease.—Immediate action was taken by the State Board of Agriculture, at a meeting on Nov. 4, to check the foot and mouth disease, which had suddenly made its appearance among the cattle, sheep, and hogs of northern Rhode Island. As the disease had established itself in a very virulent form, attacking the holstein herd, the board decided to take prompt measures for its extirpation, anticipating the next appropriation.

Political.—At the Democratic State Convention, in Providence, Oct. 4, the following nominations were made: For Governor, Lucius F. Garvin; Lieutenant-Governor, Adelard Archambault; Secretary of State, Frank E. Fitzsimmons; Attorney-General, Dennis G. Holm; Treasurer, Clark Potter. A State platform was also recommended by the State convention, which left national issues to be taken up by the congressional convention that was to follow. The platform declared that the paramount issue was "the redemption of the State of Rhode Island from the hands of those who have used, and still intend to use, the executive and legislative branches of the State government for their own personal aggrandizement"; that legislation "has been in the interest of the quasi-public corporations, and has gone so far as even to divide the income of the State"; it declared that the truest principles of government require
the initiation and referendum; demanded the abolishing of all property qualifications for voting; home rule for cities and towns; municipal ownership of public utilities, street-railroad, electric and gas lighting plants; education by enforcement of the compulsory instruction law; and providing of sufficient funds to allow every child eligible to attend school; equal taxation of corporate and private property, and the enforcement of the factory-inspection law. It opposed government by injunction and favored the election of Senators of the United States by the people. It censured the amendment to the Constitution, because it was a special law, apportioning solely to the city of Providence, but declared the readiness of the Democratic party to cooperate with the Republican party in giving the State a district representation, not only of the city of towns.

At the Republican State Convention in Providence, Oct. 6, these candidates were nominated: For Governor, Charles Dean Kimball; Lieutenant-Governor, George L. Shepley; Secretary of State, Charles P. Bennett; Attorney-General, Charles F. Stearns; General Treasurer, Walter A. Read. The platform inored the administration of President Roosevelt, especially his attitude with wise and enlightened regard to our relations with the new republic of Cuba”; declared his record merits nomination for President in 1904; praised the army’s work in the Philippines; reaffirmed the wisdom of the American system; called for summary treatment of evils growing out of trusts; said tariff readjustment should be left to a Republican Congress; commended the scheme of education and ultimate self-government established in the Philippines; and referred at length to what the party has done for the State. It commended to the electors the articles of amendment of the Constitution submitted to them by the Legislature, and accused the Democracy of opposing the articles, although conceding them to be meritorious. It approved the administration of Gov. Kimball and applauded “his action in calling to the assistance of the civil authorities the militia of the State for the protection of citizens and property from lawlessness and mob violence.”

The Prohibitionists held their convention on Sept. 21, and nominated for Governor William E. Brightman; Lieutenant-Governor, Cyrus A. Aldrich; Secretary of State, William G. Lawton; Attorney-General, James A. Williams; General Treasurer, John W. P. King.

At the election, Nov. 5, the Democratic candidates for Governor and Lieutenant-Governor, Lucius F. C. Garvin and Adelard Archambault, were elected. Dr. Garvin’s total vote was 32,279. His plurality over Gov. Kimball, who received 24,541 votes, was 7,738. The rest of the nominees for State offices on the Republican ticket were elected. The House remained Republican, with a decreased majority, 37 Republicans to 35 Democrats. The Senate contains 27 Republicans and 11 Democrats.

SOUTH CAROLINA, a Southern State, one of the original thirteen, ratified the Constitution May 23, 1788; area, 30,570 square miles. The population, according to each decennial census, was 247,073 in 1790; 345,501 in 1800; 415,115 in 1810; 502,741 in 1820; 581,185 in 1830; 594,398 in 1840; 688,507 in 1850; 703,708 in 1860; 705,606 in 1870; 905,577 in 1880; 1,151,149 in 1890; and 1,340,516 in 1900. Capital, Columbia.

Government.—The following were the State officers in 1902: Governor, Miles B. McSwiney; Lieutenant-Governor, H. T. Easterly; Secretary of State, Marion R. Cooper; Treasurer, R. H. Jennings; Comptroller, J. P. Derham; Attorney-General, G. Duncan Bellinger; Superintendent of Education, John A. McAlhahan; Adjutant-General, J. W. Floyd; Geologist, Earle Sloan; Director of the Dispensary, Leon J. Williams, H. H. Evans, A. F. H. Dukes; Railroad Commission, J. C. Wilborn, chairman; and Messrs. Garris and Wharton; Liquor Commissioner, H. H. Crum; Chief Justice of the Supreme Court, Henry Melver; Associate Justices, Y. J. Pope, Eugene B. Gary, Irw B. Jones; Clerk, U. R. Brooks. All are Democrats.

The State officers are elected in November of the even-numbered years, for terms of two years. The Legislature meets annually in January; it consists of 41 Senators and 124 Representatives.

Finances.—The Governor’s message to the Legislature of 1903 gives the following as to financial conditions: The income to the State for the year ending Dec. 31, 1902, was: Cm. balance, Dec. 31, 1901, $237,743.25; back taxes, $1,001.12; general taxes, 1901, $693.03; 1902, $325.79; railroad assessments for Railroad Commission, $7,488.46; income tax, $413.90; fees from office of Secretary of State, $12,160.92; incorporation fees, $70; annual insurance license fees, $125; graduated insurance license fees, $16,345.28; privilege fertilizer tax, $81,749.94; loans (borrowed on notes of Governor and Treasurer), $349,420.14; insurance sinking-fund, $4,365.25; State permanent school fund, $25,033.82; special school fund (dispensary), $142,755.91; Merrill fund (from United States Government), $25,000; commissioners sinking-fund (ordinary); Loans returned, $33,860.75; interest on loans, $1,812.20; agent Sinking-Fund Commission, $111,106.49; sinking-fund reduction, $138,042.44; discounts, South Carolina, $2,113,821.75; refunds, sundry accounts, $2,659.52; total, $4,214,402.76.

The disbursements included: Legislative expenses, $44,255.47; educational and charitable institutions, $297,300.94; Colored Normal, Industrial, Agricultural, and Mechanical College, $29,617.93; pensions, $200,108.80; artificial limbs, $1,999.26; State permanent school fund, $2,247.06; special school fund (dispensary), $1,156.73; public printing, $21,064.73; quarantining the State, $7,041.02; maintaining militia, $7,688.86; South Carolina Interstate and West Indian Exposition, $17,855.97; election expenses, $21,550.67; interest on public debt, $274,066.68. The total expenditures were $3,783,605.05; cash balance Dec. 31, 1902, $430,707.71.
Valuations.—The total valuations for assessment in 1902 were $106,537,061, of which $107,010,298 was real, $61,018,560 personal, and $27,506,203 railroad property. The total increase for the year is $6,263,902.

Education.—The number of illiterates in the State by the last census was 338,659. In the percentage of children from ten to fourteen able to read and write South Carolina stands forty-ninth in the list of States and Territories, with 70.44 per cent. The compulsory-education bill did not pass the Legislature. The average number of weeks of the school term in 38 out of 40 counties was twenty-one for the white and 14.97 for the colored schools. The average value of schoolhouses is $178. The average monthly salary of teachers is given as $25.78 for men and $24.29 for women.

In the session of 1901–02 of South Carolina College 215 students were matriculated. Of these, 23 pursued the classical course, 47 the literary course, 33 the scientific course, 36 the normal course, 34 the special course, 32 the law course, 10 the graduate course. The men students numbered 186; women, 29.

The report of the Citadel Military Academy shows an enrollment of 129, with 36 graduates in June. The estimate for support for the year is $25,000.

The attendance at Clemson Agricultural College has grown from 350 in 1896 to 530 in 1902. In April 60 of the 74 members of the sophomore class left the college because their petition for the reinstatement of a classmate who had been suspended for breaking a rule was not granted. The dissatisfaction spread to other classes, and the trustees, after a hearing, reinstated the suspended student. The president then resigned, but the trustees voted not to accept the resignation. He did, however, retire, and the college year 1902–03 began with a new administration.

The State College for Colored Students, at Orangeburg, had an enrollment of 624 students. The estimated cost for the year 1902–03 is $823,320.27, of which the income covers $18,315.15, leaving a deficiency of $704,949.12. The deficit is $5,000 more than the State may contribute; $5,000 is needed to finish and equip the new building on which $5,000 has so far been spent.

In Winthrop Normal and Industrial College for Girls the number of officers, teachers, and assistants was 43, compared with 38 for the previous session, and the enrollment in the college, not including 90 pupils in the model school and kindergarden, was 456, against 372 for the previous year. The amount required for ordinary expenses is $63,550; tuition and other fees amount to $10,974, leaving more than $50,000 to be provided by the State.

Other colleges in the State sent out graduates as follows: Newberry, 11; Erskine, 11; Due West Female College, 20; Furman University, 14; Greenville Female College, 17.

The State Medical College gives 7 free scholarships to young men and women appointed by the Governor, one from each congressional district.

Charities and Corrections.—In 1902 506 new patients were admitted to the State Insane Hospital; the daily average was 1,134, and the whole number under treatment 1,011. The institution is overcrowded.

At the State Penitentiary 183 new convicts were received, 194 were discharged, 30 were paroled, 11 escaped, and 45 died. Dec. 31 there were remaining 701.

The total receipts, including balance, were $84,009.21; the current expenses, $82,657.07; for permanent improvements, $4,300 was expended. The balance, Dec. 31, was $17,112.14, in addition to which $6,300 had been earned but not collected, and $12,000 worth of farm-products were on hand.

Militia.—The numerical strength of the volunteer troops, including all branches of the service, rank and file, is 3,000, composed as follows: Three regiments of infantry, 1 regiment of cavalry, 1 company of artillery, and 3 divisions of naval reserves.

The Dispensary.—Of this institution the Governor says:

"For the first time since the dispensary law was enacted it was not an issue in the political campaign for the governorship the past year, as all the candidates for Governor were pledged to its support and to the strict enforcement of the law. The greatest opposition to the system of State control of the sale of liquors is in the larger cities. As recently as three years ago there was illicit sale of liquor in these cities, and there will continue to be until public sentiment in these communities grows more strongly in favor of the dispensary system and juries and jurors regard more seriously their oath and convict persons who are proved guilty of the violation of the law. The business the past year has increased, which may be taken as an evidence that the people are becoming more in sympathy with the law, rather than that the consumption of whisky is increasing.

"The amount to the credit of the school fund on Nov. 30, 1902, was $517,842.12; total, $730,523.17.

"Under the act of the last Legislature requiring the directors to pay to the State Treasurer quarterly the profits to the credit of the school fund three payments have been made aggregating $92,755.94. The same act requires that the profits to the credit of the school fund carried as stock shall be reduced by semiannual payments to $400,000 by Jan. 1, 1904. Under this requirement $100,000 have been paid to the State Treasurer for the past year. The following figures show the total net profits for the year ending Nov. 30, 1902, from the sale of liquor and beer: From whiskey to towns and counties, $392,988.36; from beer to towns and counties, $90,515.40; total $443,198.76; net profit to the State, $123,699.07; total net profit, $565,897.83."

In connection with the dispensary, the State has a claim against the Government for taxes alleged to have been illegally collected. The contention is that the Government cannot tax the agencies of a State government.

Industries and Products.—According to the census reports of 1900, there were 155,353 farms in South Carolina, averaging 90 acres. The average farm of the white farmer was 143.7 acres, that of the negro farmer, 44.4 acres; 69,954 white farmers and 85,401 negro farmers; 31,120 whites owned their farms, and 15,903 negroes could show titles for theirs; 2,934 whites were part-owners, and so were 2,316 negroes; 24,871 whites were owners and tenants, as also were 91 negroes. There were 874 white managers of farms and 159 negro managers. The white cash tenants numbered 14,015, the negro cash tenants 42,434; the white share tenants were 16,621 in number, the negro share tenants 23,675. Fifty-five per cent of South Carolina's farmers were negroes.

The total value of the farms was $1,845,501.18 of which $909,056,800 represented the value of land.
and improvements, excepting buildings; $26,955,-
670, value of buildings. The labor to work the
farms cost $6,107,700.
Of the farms, a large majority, 112,622, were
devoted to cotton-raising, and these were worked
by 46,137 whites and 66,085 negroes. The growth of
the mill industry, drawing labor away from the
fields, has retarded progress in farming.
The report of the cotton-crop of 1901-192 credited
this State with 925,000 bales, against 911,000
the year next preceding. The consumption in the
State mills was 614,905 bales, an increase of 103,-
579. The number of mills was 134, with 57,952
looms and 2,179,528 spindles.
The tobacco-crop of 1899 was valued at $1,297,-
293, the State standing tenth in the value of the
crop. The value of the sweet-potato crop the same
year was $1,598,205.
South Carolina claims to have the only tea
plantation in America, and its product is said
to bring the highest price ever paid for tea here.

A view from a partition of construction in 1901 it
appears that there were established here 6 textile
mills, with 1,200 looms and 62,748 spindles. In
the fall of 1899, Secretary of State issued charters and commissions to 18 new
cotton-mills, with a total capitalization of $3-
880,000.

The first half of the year 4 new cottonseed-
mills were established, with $110,000 capital.
The question of child labor in the mills is at-
ttracting much interest. The growth of the
cotton-mill industry has been phenomenal—from
$2,500,000 capital in all textile industries twenty
years ago to $35,000,000 at present. And this
has drawn attention and raised the question how
much cheap labor has had to do with the rapid
progress. Naturally those interested in the pros-
perity of the mills do not credit the opponents of
child labor with motives of unmixed philan-
thropy. So far it seems that there has been no
State legislation against it; a bill introduced at
the session this year was defeated. According to
the mill-owners, the number of children under
twelve employed is less than 4 per cent. Twelve
months, however, rather low average limit.
The royalties from the phosphate industry this
year were a little less than those of 1901—about
$250,000.
The State House.—This building, so long un-
finished, was completed and accepted in May.
The recent outlay upon it was $175,623.
Railroads.—The mileage of the railroads is
more than 5,000, the gross earnings nearly $12,-
000,000, and the income, less operating expenses
and taxes, near $4,000,000.
The alleged discrimination of the Southern
Railway company against the city of Charleston
had a thorough hearing and investigation, result-
ing in a decision not wholly in favor of either side.
The Southern Railway has taken in four roads, all
separately, and the city operated by it. The Atlantic Coast Line and the Plant sys-
tem were consolidated also.
Banks.—The aggregate capital of new banks
organized this year, up to Dec. 31, is $671,000.
Insurance.—The preliminary report of the
American insurance companies doing business in
the State shows a total of premiums in 1901 of
$814,746, and of losses paid $334,712. The for-
ign companies received $316,117.80 in premiums,
and paid $198,826.47 in losses.
Lawlessness.—Four negroes were implicated
in a murder committed by the Road crew in
Charleston, in June. One was killed while trying
to escape arrest; two of the others were lynched.
An atrocious murder was committed near Troy
in December. W. K. Gay, a young farmer, was
shot in his own yard by a negro or his wife, both
of them living on the place. Both of the negroes
were lynched at midnight.
Legislative Session.—The General Assembly
was in session from Jan. 14 to Feb. 22. W. F.
Stevenson was Speaker of the House.
At the opening of the session the Governor
sent in vetoes of two of the acts of the session of
1901. One was a local bill; the other was the
act repealing the antifree-pass act.
The dispensary officials were all reelected: H.
H. Crum for Commissioner, Leon J. Williams for
chairman, and H. H. Evans and A. F. H. Dukes
members of the Board of Control.
Ira B. Jones was reelected Associate Justice of
the Supreme Court. For Circuit Judges, Charles
G. Dantzler, James Aldrich, R. O. Purdy, R. C.
Watts, G. W. Gage, and J. C. Kughs were elected.
W. B. Love and W. D. Mann were reelected
directors of the Penitentiary; and John T. Sloan
and Robert MacFarland trustees of the South
Carolina College; J. E. Brezeale and Willie
Jones were elected trustees of Winthrop College;
and for trustees of the University of South Carolina,
Augustine T. Smythe, W. D. Evans, and John S.
Garris were elected; and for trustees of the State
Colored, College A. L. Dukes and Cole T.
Please. Miss L. H. Laborde was elected to fill
the unexpired term of the former State librarian.
The acts and joint resolutions of the session
numbered 175.
The congressional districts were redivided.
A constitutional amendment was proposed. It
is for the relief of townships that issued bonds
for railroads that have not been built or have
been abandoned. The amendment provides for
destroying the corporate existence of the town-
ships, abolishing all township affairs, and remov-
ing all corporate agents. The United States
courts have held that the obligation is legal, so
that the townships saw no other way to obtain
relief. Eight townships were affected.
An act "to further define connecting lines of
common carriers and fix their liabilities" was
passed. The object of the act is to facilitate the
collection for loss or damages to freight by ship-
ers and consignees, by requiring the delivering
carrier to make settlement, instead of compensating
the one who claims from finding out the particu-
lar carrier by which the loss or damage was sus-
tained.

Other acts affecting railroads were: To pro-
vide the measure of damage to which any com-
mon carrier may be held for the conversion to
its own use of any property held by it on con-
signment or in course of consignment; to incor-
porate the French Broad and Southern Railroad
Company; to authorize the consolidation or
merger of the capital stocks, franchises, and
properties of the Asheville and Spartanburg Rail-
road Company, the South Carolina and Georgia
Railroad Company, the South Carolina and
Georgia Railroad Extension Company, and the
Carolina Midland Railway Company under the
laws of this State, and to authorize and empower
such consolidated company to make a lease of its
railroad properties and franchises to the South-
ern Railway Company; and to require electric
street-railway companies to provide trains and
vestibules for the protection of motormen.
The existing road law having been pronounced
unconstitutional, in that it had different service
on the roads for different counties, an amend-
ment left the exact number of days to the county
commissioners, and fixed a maximum and a mini-
mum service.
Among the acts affecting corporations were: 
An antitrust bill prohibiting the formation of pools, trusts, combinations, confederations, etc., to regulate prices, and declaring those entering such combinations to be guilty of conspiracy to defraud; providing for an unlimited number of directors for banking and trust corporations and to enable such corporations to divide the same into two classes—active and advisory—and prescribe distinct duties for each class; and empowering cities and towns to give exclusive franchises to persons or corporations furnishing water or light thereto, respectively, under certain conditions. 
The House passed a resolution calling for a commission to examine into the advisability of establishing a State fertilizer plant to be operated by convicts. The object, or one object, was to establish competition against the Virginia-Carolina Chemical Company, now controlling most of the fertilizer factories and regulating the prices. 
The amount for Confederate pensions was raised to $200,000. Bills were passed to regulate county aid to ex-Confederate soldiers, and to prevent their disfranchisement; the office of county pension commissioner was created, and the duties of county pension boards defined and regulated. The act exempting ex-Confederate soldiers and sailors from taking out licenses as hawkers or peddlers was amended by making it apply to towns and cities. Certain broken granite columns lying on the State-House grounds were given to women's organizations to be used for Confederate memorials. Tillman, the Southern Cross by others than those entitled to wear it was prohibited. The purchase of 300 volumes of The Confederate Woman's Book, to be placed in the libraries of the public institutions and colleges of the State, was ordered. 
A concurrent resolution declaring "that the thanks of every true American citizen is due to that great naval chieftain Winfield S. Schley, his officers and men, for their gallant conduct in the harbor of Santiago, on July 3, 1898," was passed. 
Other enactments were: 
Declaring the code as submitted by the Code Commissioner the only general statutory law of the State. 
To define train-robbing and fix the punishment therefor. 
To establish Lee County. 
To amend an act to regulate the carrying, manufacture, and sale of pistols, and to make a violation of the same a misdemeanor. 
To regulate the qualifications of non-resident executors. 
To require certain agricultural investigation and experimentation in the coast region by Clemson College. 
To provide for the running of public schools on a cash basis. 
To amend the act to regulate the rate of interest upon contracts arising in this State for the hiring, lending, or use of money or other commodity. 
To require municipalities to provide drains for surface water. 
To provide for the preservation of valuable documents and papers of the State. 
To regulate the catching and sale of oysters, clams, and terrapins, and to provide a county inspector. 
To amend the statute prohibiting sale and shipping of partridges for five years, so as to include deer and wild turkeys in its provisions. 
Fixing the State tax levy at 5 mills. 
Extending the provisions of the statute on kidnaping so as to make it applicable to any case of taking away a minor without the consent of the parent or guardian. 
Appropriating $2,000 for artificial limbs for veterans. 
The Governor recommended the enactment of a compulsory education law. 
A bill to that effect was introduced in the Senate, but failed by 2 votes. 
A bill to abolish child labor was defeated in the House by the same majority—2 votes. Most of the votes in favor came from outside the hill counties. A ten-hour labor law was defeated also. 

A resolution for a constitutional amendment making the legislative sessions biennial was lost. 
The Quarrel of the Senators. The incident related on page 761 of the Annual Cyclopedia for 1901 had as a sequel the fight between the two Senators from this State on the floor of the Senate, Feb. 22, which is given in the article Congress in this volume. 
The Lieutenant-Governor. This official has come prominentely before the public in two instances in which he is affected. In one, the election was not contested, but which had given notoriety from the fact of his holding a State office. Early in the year he had raised money to present a sword to Major J. M. Jenkins, a soldier who served with distinguished gallantry with the Rough Riders and was highly praised by the President in his written history and in a letter to Lieut.-Gov. The warrant given Lieut.-Gov. was sentence or two from the letter engraved upon the scabbard of the sword. It was arranged that the President should present the sword during his intended visit to the exposition at Charleston. When the invitation to the dinner for Prince Henry was recalled from Senator Tillman, his nephew, the Lieutenant-Governor, telegraphed to the President that the invitation to him to present the sword was withdrawn. As far as is known, the other contributors were not consulted. Tillman was a candidate for the office of Governor in the State campaign and was strongly opposed by the editor of a Columbia newspaper, The State, N. G. Gonzales, who was fatally shot by Tillman in the street when walking home, unarmed, from his office, Jan. 1, 1902. One of the incidents of the quarrel between the men was in relation to a ruling made by the Lieutenant-Governor while presiding in the Senate. He ruled that a motion to postpone indefinitely was not debatable. When the decision was questioned he telegraphed to Senator Frye and Speaker Henderson and declared that both had pronounced his ruling right. This was taken up by the editor of The State, who upon inquiry received a denial from each of those presiding officers, both of whom said they had answered that the motion was debatable. He published the correspondence. 

Political.—As there is practically no opposition to the Democratic ticket at the State election, the interest centers in the primaries. They were held Aug. 29 to nominate a successor to Senator McLaurin, and candidates for State officers. The candidates for the office of United States Senator were A. C. Latimer, D. S. Henderson, George Johnstone, William Emmor, J. J. Hemphil, J. G. Evans. For the State officers the following were in the field: For Governor, W. H. Timmerman, J. F. A. Ansley, D. C. Heyward, W. J. Talbot, J. H. Tillman; Lieutenant Governor, C. L. Blease, J. T. Sloan, F. B. Gary; Attorney-

The candidate for Treasurer had no opposition. Mr. Gunter was chosen for Attorney-General and Mr. Martin for Superintendent of Education. For all the offices none received majorities, and a second primary was held in September to decide between the highest two in each case. In November the following votes were cast: For Governor, Heyward, 31,098; Lieutenant-Governor, Sloan, 30,256; Secretary of State, Gantt, 30,794; Attorney-General, Gunter, 30,937; Treasurer, Jennings, 30,653; Comptroller-General, Jones, 30,533; Superintendent of Education, Martin, 30,533; Adjutant and Inspector-General, Frost, 30,934; Railroad Commissioner, Caughman, 30,678. The proposed constitutional amendment was carried by a vote of 26,644 yeas to 1,905 nays. The highest vote was only about one-third of the total vote in the primary.

SOUTH DAKOTA, a Western State, admitted to the Union Nov. 2, 1889; area, 77,650 square miles. The population was 399,306 in 1890 and 401,570 in 1900. Capital, Pierre.

Government.—The following were the State officers in 1902: Governor, Charles N. Herreid; Lieutenant-Governor, George W. Snow; Secretary of State, O. C. Berg; Treasurer, John Schambler; Auditor, J. D. Reeves; Attorney-General, John L. Pyle, who died Feb. 22, and was succeeded by A. W. Burtt; Superintendent of Public Instruction, E. E. Collins; Commissioner of School and Public Lands, David Eastman; Adjutant-General, S. J. Conklin; Insurance Commissioner, H. C. Shofer; Public Examiner, Henry B. Mauch; Brown, 15,185; Buffalo, 17,060; Butte, 2,907; Campbell, 4,527; Charles Mix, 8,498; Clark, 6,942; Codington, 8,770; Custer, 7,275; Davidson, 7,483; Day, 12,254; Deuel, 6,656; Douglas, 5,012; Ed-ward, 4,916; Fall River, 3,541; Faulk, 3,547; Grant, 9,103; Gregory, 2,211; Hamlin, 5,045; Hard, 4,525; Hanson, 4,467; Hughes, 3,684; Hutchinson, 11,897; Hyde, 1,462; Jerauld, 12,241; Kandiyohi, 8,366; Lake, 9,317; Lawrence, 14,027; Luce, 9,386; McKenzie, 3,161; Minnehaha, 4,048; Marshall, 5,492; Meade, 4,907; Meyer, 20; Miner, 5,684; Minne-aha, 5,823; Moody, 1,114; Pennington, 5,610; Potter, 2,988; Roberts, 12,216; Sanborn, 4,494; Spink, 4,987; Stanley, 1,341; Sully, 1,715; Turner, 12,175; Union, 11,153; Walworth, 2,329; Yankton, 12,649; Cheyenne River Indian Reservation, 2,623; Pine Ridge Indian Reservation, 6,297; Rosebud Indian Reservation, 5,201; Standing Rock Indian Reservation (part of), 1,658; total, 401,570.

The census returns of bachelors and spinsters of twenty years and upward gives: Bachelors, 39, 704; spinsters, 13,425.

Finance.—The bonded debt of the State is $588,300. The rate of taxation is $3.20 on the $1,000. The State tax collections for the last quarter of 1902 were $149,623.58, exceeding those of the year before by $12,000.

The liabilities of all the counties at the close of the last fiscal year was $4,432,588, an increase of $121,659 in one year.

The assets and resources of all the counties, consisting of county property, unpaid taxes, and cash on hand, is $4,939,462—an increase of $63,492 in one year.

The expenditures of all the counties for the year amounted to $3,766,655, an expenditure of $218, 609 greater than that of the previous year.

Valuations.—The total valuation of the State, as listed by the Board of Assessment and Equalization, is $187,531,381, which is an increase of $14, 324,648 over the final returns of 1901.

This is said to be much too low; a law passed some years ago restrains the Board of Equalization from raising the valuations beyond a certain amount over the county returns. Consequently, the revenues are insufficient to meet the growing needs of the State.

The assessment rolls show the acreage of real estate listed for assessment to be 19,247,748 acres, an increase from 1901 of 244,276 acres. The valuation of this is placed at $111,311,904, an increase of $10,777,584. The average returned price per acre is $3.78, an increase of 50 cents. The valuation of town lots is returned at $19,093,064, an increase of $1,700,858.

A total of 1,218,297 cattle were returned for assessment, an increase of 139,034, with a valuation of $15,767,412, an increase of $862,814. There is an increase of 27,737 in the number of horses returned, making the total 374,361, with a valuation of $7,677,778, an increase of $116,394. The number of sheep returned shows an increase of 61,700, making a total return of 900,663, with a valuation of $1,053,982, an increase of $37,856. The number of hogs returned is 311,980, an increase of 83,123. The value is given at $644,596, an increase of $115,438.

Education.—The number of illiterates in the State in 1900 was 14,832. In the percentage of children from ten to fourteen able to read and write, South Dakota stood eighteenth in the list, with 99 per cent.

The December apportionment of the interest and income fund to the schools of the State from the officer of the Commissioner of School and Public Lands was $70,288.04, or 54 cents per capita on the school population. The June apportionment was a total of $270,923.45, or a per capita of $2.54.

The State has a large surplus of school moneys lying idle, which under the law can only be invested in certain bonds.

In the past two years 129 new country schools have been built. For the year ending June 30 the average wages of male teachers in rural schools was $36.07, against $34.70 in 1901, and the average for the female teacher in the rural schools was $32.31, against $31.17 the year before.

The Aberdeen Normal School had an enrolment
of 61 Sept. 25. The dedication exercises were set for Oct. 23.

The attendance at the Agricultural College, at Brookings, in the year ending in June was 600, having grown to that number from 150 six years ago.

Yankton College had an attendance of 286, excluding duplicates in departments, as follows: College, 54; academy, 117; conservatory of music, 103; art, 29; elocation, 30; shorthand, 15; domestic science, 9. At the twentieth annual commencement, in June, the graduates in the various courses were: College, 7; academy, 17; music, 1; elocation, 3; physical training, 7; shorthand, 2.

A bust of Dr. D. K. Pearson, of Chicago, whose last gift to the college was $50,000, was unveiled. In 1901-02 the college received $22,000, mostly from Eastern friends for permanent improvement and endowment. Of this, about $18,000 is being put into a gymnasium and athletic field. The total assets of the institution are now $280,000.

Charities and Corrections.—The buildings of the public institutions are in general overcrowded. At the insane hospital there were 570 patients in October, while the building can not well accommodate more than 300. The same statement holds for the State Hospital in the past ten years. It has built two cottages, the power-house, and the large rear center building, which was completed last year. But with one exception not one increase has been made in the number of rooms for the patients. The institution at Redfield for the feeble-minded, which was opened in 1901, is likewise inadequate for the accommodation of all the applicants.

There is a movement to separate the boys' and girls' department of the Reform School, at Plankinton, and placing the girls in charge of women exclusively.

The report of the State Penitentiary in November gave the number of convicts, June 30, as 160. The year ending June 30, 1900, there were 134. The per capita cost of maintenance for 1901-02 was $215.35, against $267.11 the previous year.

Industries and Products.—The Census Bulletin on South Dakota shows that in the census year, 1900, there were 62,622 farms in the State, valued at $220,133,190, and covering an area of 19,070,510 acres, or about 39 per cent. of the total area. The live stock held on the farms is valued at $12,218,650, making the total value of farm property for the State $297,595,302.

An estimate of the crops of 1902 gives, for wheat, 38,000,000 bushels; oats, 20,000,000 bushels; flax, 9,000,000 bushels; corn, 40,000,000 bushels.

Articles of incorporation were filed in August at Pierre of the Farmers' National Cooperative Exchange Company with a capital of $50,000,000. The purpose of the corporation is to buy, sell, and deal in grain, provisions, live stock, and all kinds of produce, on commission and otherwise, and for the purpose build and equip grain-elevators, warehouses, cold-storage plants, stock-yards, and whatever may be necessary to carry on the business of the corporation.

The value of the manufactured products of the State was given in the census year as $12,000,000. The gold produced in 1901 was valued at $6,479,500, and the silver at $46,800. The preliminary estimate for 1902 was: Gold, $7,298,057; silver, $1,522,672.

It was reported, Dec. 31, that one of the richest gold discoveries made in Custer County of recent years has just been made on the Roosevelt group of the Grantz Gold-Mining Company, 8 miles from Custer. It was in an old shaft, started several years ago, abandoned by the former owners, and recently cleaned out and explored. A drift of a few feet from the shaft encountered quartz liberally sprinkled with free gold.

Oil has been discovered 30 miles from Sisseton, and preparations are making for establishing works there. A discovery of natural gas is reported near Aberdeen.

The fees of the department of the Secretary of State for 1902 amounted to $22,408. Of the amount $17,119 was paid for charters of domestic corporations: $907.20 for foreign corporations: $853.90 by banks; $1,160 by notaries; and the remainder was miscellaneous fees.

Insurance.—The statistics of 1901 show the following figures: Fire-insurance, premiums received, $519,923.60; losses paid, $235,249.57; losses paid out, $235,611.92; accident insurance, receipts, $31,051.81; losses, $31,201.27; South Dakota Mutual Fire Companies, premiums received, $144,548.94; losses paid, $55,576.20.

The commissioner says in his annual report: "The statistics for the past thirteen years show that an average of 49.4 per cent. of the premium receipts of the fire companies collected in this State has been sufficient to pay all losses sustained, and that for the past year but 44.9 per cent. was required for losses. This is premium receipts alone, and does not include receipts from other sources, such as interest from invested funds.

Lands.—The wooded area of the State is 2,500 square miles. The Land Commissioner recommends that the herd law, which prevails on the eastern side of the river, should be extended over the State, thus covering the cattle country west of the river where the free range has been in vogue. He takes the position that all the State lands are being used for grazing. He says that the State is the owner of 1,088,940 acres of common school and endowment lands in the free-range section of the State. On the other hand, stockmen argue that the adoption of the herd law would result in disaster, not only to the cattle industry west of the river, but to the interests of the State as well. They call attention to the fact that the western part of the State is entirely a stock country, excepting small tracts that may be irrigated and farmed. They say that to cut off the free-range privileges and compel stockmen to herd would practically wipe out the cattle industry.

Political.—For the State and congressional election in November 4 tickets were filed—Republican, Democratic, Prohibition, and Socialist. The platform adopted at the Republican Convention, June 4, approves the national administration, favors the settlement of disputes between capital and labor by arbitration, alludes to the good faith of the Union, and for the independence, rejoices over the pacification of the Philippine Islands, denounces partisan attacks upon the behavior of the United States soldiers, and highly commends the State Government and the Representatives of the State in Congress.

The Democratic and Populist Convention, June 25, reached an agreement upon fusion and united upon a platform to be known as the Populist. The platform reaffirms the principles of the Kansas City platform, denounces the Fowler currency bill and the workings of the so-called text-book trust in the State, denounces the recent legislation for the change in the Australian ballot law limiting the number of parties represented
on the ballot, denounces the Legislature for the
repeal of the law allowing each county commis-
sioner district to elect its own members, favors
Government control of the railroads and public
utilities, and favors the election of United States
Senators by direct vote of the people.

The nominations for the State offices are given
below in the same order of parties as above:
For Governor, Charles N. Herreid, John W. Mar-
For Lieutenant-Governor, George W. Snow, Ev-
erett Smith, W. J. Edgar, Erik Shakstad.
For Secretary of State, O. C. Berg, Edward S.
Ashley, G. H. Brown, Clarence Brothers.
For State Auditor, J. F. Halliday, Thomas W.
Taubman, A. H. Tasker, G. Frank Walker.
For State Treasurer, C. B. Collins, Louis Chia-
dek, Knute Lewis, A. E. Clark.
For Commissioner of School and Public Lands,
T. Pierce.
For Railroad Commissioner, D. H. Smith, Hiram
B. Rowe, H. W. Reinecke, E. B. Case.
For Attorney-General and Superintendent of
Public Instruction there were no Prohibition can-
didates on the ticket.
For Attorney-General, Philo Hall, William A.
For Superintendent of Public Instruction, Geo-

THE REPUBLICAN CANDIDATES WERE ELECTED.
The Republican candidates were elected. The
vote for Governor stood: Herreid, Republican, 48,
186; Martin, Democrat, 21,396; Curtis, Prohibi-
tionist, 6,268.

TENNESSEE, a Southern State, admitted to the
Union, June 1, 1796; area, 42,050 square miles.
The population, according to each decen-
nial census since admission, was 105,620 in 1800;
261,727 in 1810; 422,771 in 1820; 681,904 in 1830;
829,210 in 1840; 1,002,717 in 1850; 1,109,801 in
1860; 1,258,520 in 1870; 1,542,369 in 1880; 1,767;
519 in 1890; and 2,029,616 in 1900. Capital, Nash-
ville.

GOVERNMENT.—The following were the State
officers in 1902: Governor, Benton McMillin; Secre-
tary of State, John W. Morton; Treasurer, Horace
F. Folk; Comptroller, Theodore F. King; Superinten-
dent of Agriculture, Thomas H. Paine; Superinten-
dent of Instruction, Morgan C. Fitz-
patrick; Adjutant-General, W. M. Brandon; At

corney-General, D. W. Snell; Commissioner of Labor,
Robert A. Shiflett; Ag. Stock Commissioner, Martin
J. Noonan; Railroad Commissioners, W. B. Bap-
tist, J. N. M. Benson, and Thomas L. Williams;
Prison Commissioners, W. M. Nixon, W. A. Car-
ter, and John S. Denton, who succeeded A. J.
McWhirter; Librarian, Jennie Landerdale; Chief
Justice of the Supreme Court, David L. Snod-
grass; Associate Justices, W. C. Caldwell, John
Wilkes, W. K. McAllister, W. D. Beard; Clerk,
A. W. McMillin; Justices of the Court of Chan-
ce, Appeals, M. M. Neil, S. F. Wilson, R. M.
Barton, Jr.; Clerk, James Turney. All are Demo-
crats.

State elections are held biennially in November of
the even-numbered years. The Legislature meets biennially in January of the odd-numbered years.

EDUCATION.—The condition of education re-
cemed more than usual attention in 1902. With
a school population of 753,198, the number of pupils enrolled in the State was 488,655, and the
average daily attendance, for the average school
term of ten months, was 250,000. The average yearly salary of the country public teachers
was $133. Both political parties have pro-
posed reforms that will put more pupils into the
schools, and for equalization in the year. It is
proposed to increase the permanent school fund,
which is the same now that it was thirty years
ago, by increasing the State levy for school pur-
poses from 15 to 25 cents on the $100, and by
legislation that will permit school districts to
levy special school taxes, also by forcing into
the schools all children who should attend by
some form of a compulsory school law. The
need for the special training of primary teachers
is felt particularly. The Peabody College for
Teachers and the summer institutes and schools
are exerting a helpful influence, but the demand
is greater than they can meet with their present
limited resources.

INDUSTRIES.—According to the last census re-
ports by W. H. Wiley, chief of the bureau of
chemistry of the Department of Agriculture, Ten-
nessee takes eleventh place in the aggregate value
of the flour produced, the number of barrels
being 3,512,985, and their value $13,229,009.
Tennessee has 337 establishments handling 10,546,155
bushels of wheat, valued at $11,778,886. Ten-
nessee takes a higher rank in the excellence of
the flour made. In this list its flour was graded at
$3.76, the average value being given at $3.39.
Tennessee is shown by the last census returns
to rank ninth in the lumber industry, its product
being larger than that of any Southern State except
Arkansas. The value of the product is given as
$18,000,000.

The largest iron blast-furnace in the South was
put in blast at La Follette by the La Follette
Coal, Iron, and Railway Company in April. It
will have a daily capacity of 250 to 400 tons of
pig-iron, and is expected to result in a large and
rapid growth for that section of East Tennessee.

The census report on printing and publishing
gives Tennessee the highest position among
Southern States in this department of industry.
The aggregate circulation of the Tennessee publica-
tions per issue is 3,121,017. Tennessee out-
ranks 40 States by 500,000 to 3,000,000. Only 7
States outrank Tennessee. Tennessee had 251
newspapers and periodicals, classified as follows:
16 daily, 6 semimonthly, 187 weekly, 26 monthly,
and 10 quarterly.

AGRICULTURE.—The committee of agricultural
experts appointed to make a report to the Nash-
ville Chamber of Commerce on a State fair did
so on April 18. Its description of the agricultural
situation was startling and pessimistic. It com-
pared the yield of grain in 1898 and 1899 with
1875, 1880, and 1890, showing that in these years
respectively the yield of corn was 41,343,614, 63,635,350,
and 59,967,760; that of wheat, 6,186,916, 8,300,
789, 8,292,727; of oats, 4,513,315, 8,775,914,
5,326,244; of barley, 75,068, 63,368, 19,539. For
the same decades the yield in the number of
horses was 247,254, 331,842, 308,073; of mules,
102,983, 203,530, 139,163; of cattle, 643,609,
965,339, 529,325; of hogs, 1,829,690, 1,922,912,
1,750,154; of sheep, 826,783, 54,996, 251,735. The
report shows also that since 1900 there has been
a loss on every item, and a material loss on all
except horses. It says: "The growing of small
fruits and truck-farming have been successfully
developed, and certain localities and individuals
here and there have increased the yield of their
fields and maintained the high standard of their
studs, herds, and flocks; but, on the whole, Ten-
nessee, from an agricultural standpoint, has made
no substantial progress since 1875." Another fact
brought out is that for the decade 1890–1900 the
increase in the population of the State outside of the cities and incorporated
towns is but 157,103, and from this, the report has been made that at least 61,500 in certain counties where mines, etc., have been opened, leaving 96,113, which increase, it says, is undoubtedly domiciled for the most part in villages and towns unincorporated, or in the suburbs of cities and incorporated towns. It shows that of the 10,000 increase in Davidson County, for example, outside of Nashville, perhaps fully 6,000 are suburban residents. It recommends the establishment of an annual State fair as a remedy for the present agricultural depression.

According to the report issued by the Census Bureau on July 7, in the farms of Tennessee, June 1, 1900, numbered 224,623, and were valued at $285,150,750. The value of farm implements and machinery on the same date was $15,523,670, and of live stock $60,530,756. The yield of the mending of farms makes the total value of farm property $341,202,025. The total value of farm products for 1899 was $106,164,440. It is approximately twice that for 1898, but a part of this increase is doubtless due to a more detailed enumeration in 1900 than in 1899. The total land area in Tennessee is 41,750 square miles, of which 76.1 per cent. is included in farms. The increase in the total value of farm products since 1890 was $28,310,375, or 9 per cent.; the increase in the value of land improvements and buildings was $22,450,210, or 8.9 per cent.; in that of implements and machinery, $9,250,190, or 32.3 per cent.; and in that of live stock, $54,375, or 0.9 per cent. All counties reported an increase in the number of farms in the last decade, and nearly two-thirds of the counties reported an increase in total farm area. The average size of farms varies from 54.8 acres in Shelby County to 182.1 in Fentress County. As a rule, the counties with the largest farms report the smallest farms. Nearly 85 per cent. of the farms are worked by white farmers; 15.1 per cent. by colored farmers. Of the white farmers, 94.4 per cent. own all or part of the farms they operate, and 25.6 per cent. operate farms owned by others. For colored farmers the corresponding percentages are 25.8 and 72.5.

Commerce.—In the history of the Merchants’ Trust Company of St. Louis made an arrangement by which it undertook to finance the Tennessee Central Railroad. The mortgage is dated July 1, 1895, and secures a fifty-year 5-per cent. gold bonds, coupons payable January and July, bonds being redeemable at 5 per cent. premium on and after July 1, 1907, at the option of the company. The bonds to be immediately issued amount to $5,000,000, sufficient to cover the lines already completed at the rate of $52,000 a mile. The Tennessee Central operates now from Lebanon to Emory Gap, 127 miles. The object of the line is to develop the 400,000 acres of coal land in the Lebanon region.

Insurance.—The report of the State Insurance Commissioner shows that the receipts from reported companies up to Dec. 31, 1901, amounted to $2,502,736, and the losses to $1,823,442. Thirteen companies withdrew from the State during the year and no reports were had from them. There were also three companies from which there had been no statement. The commissioner estimates the total receipts at $2,575,000, and the losses at $2,000,000.

Forestry.—The Tennessee Forest Association, which held its first annual meeting in November, 1900, has rapidly attained an important position, numbering among its members over 100 of the foremost citizens of the State. It has already done something to arrest deforestation by disseminating informa-

respecting the growth, protection, and utilization of forest resources by means of reforestation from forest destruction. It held its second annual meeting at Monticello on July 21. The papers read on the occasion have still further stimulated the interest in the movement throughout the State.

Prisons.—The State Board of Prison Commissioners submitted to the Governor on Jan. 30 their report for the fiscal year ending Dec. 1, 1901. It covered every department of prison affairs and gave minute items of expenses and receipts. During the year the net profits of the main prison were $2,764.10; the net profits of the Brushy mountain mines, $100,970.75. The balance in treasury from the main prison, $40,223.94; the balance in treasury from the Brushy mountain mines, $1,235.94. The total net balance was $123,362.45. It was shown by a comparison with the years 1899 and 1900 that the earnings of the main prison for 1901 were $90,753.19, more than in the latter; and that the earnings of the Brushy mountain mine were $16,359.73 more than in 1899, and $7,443.24 less than in 1900. The net balance of cash deposits by the main prison for 1901 was $29,473.30 more than in 1899 and $17,242.81 more than in 1900. The net balance of cash deposits by the Brushy mountain mine for 1901 was $9,974.31 more than for 1900 and $917.03 less than for 1900. The decreased profits from 1900 shown in the operation of the Brushy mountain mines may be accounted for by the fact that, while the output of coke in 1900 was 40,714.95 tons, in 1901 it was 50,067.01 tons. The reduction in profits for 1901 by reason of the decreased market price of coke alone was $3,570.35. The average price received for coke in 1900 was $8.60 per ton; in 1901, $7.60. While the average selling price of coke in 1900 was $8.829, while in 1901 it was $7.60. The difference in the profits on coke for the two years was $1.04. The difference in the output of 50,067.01 tons is the amount above stated, $52,570.35.

Mining Disaster.—The worst disaster in the history of the state occurred on April 19, 1901, when 220 men and boys met an instant death at the Fratesville coal-mine, 2 miles west of Coal Creek, as the result of a gas explosion. It was of such suddenness that the calamity was due to negligence.

Fruit-Storms.—The most destructive fruit-storms that had occurred for years took place in the central and southern portions of Middle Tennessee on March 29, doing enormous damage to railroad and other property. Small streams rose rapidly to heights they had never attained before. In Giles County a general opinion that the calamity was due to negligence.

Legal Decisions.—On May 27, Judge Clark of the United States Circuit Court, Knoxville, handed down an opinion in the case of Rigsbee, Novo & Smith, of Rogersville, Tennessee, Virginia-Carolina Chemical Company et al., in which he holds that the plaintiffs' claim for damages from the defendant, to the amount of $3,000, was not sustained. The ground of the main defendant company was that a combination in this and other States in the fertilizer business, is not well founded. He held...
that chapter cxxviii, Tennessee Acts of 1891, and chapter cxxv, Tennessee Acts of 1897, on which the suit is predicated, have been repealed; also, that these repealed laws, which constitute the Tennessee antitrust legislation, are in contravention of the Federal Constitution and void, because they interfere with commerce between the States mentioned. Judge Clark says that had the suit been brought on the Sherman antitrust law, he would have passed upon it.

The Supreme Court handed down a decision, March 7, on the test case of Benedict Brothers vs. Davidson County et al., in which suit was involved the taxation of sawlogs and lumber made from logs that were the product of the soil of Tennessee. The case was decided in favor of the plaintiffs, with right to recover. The suit involved the question of taxation of millions of dollars' worth of property which had heretofore been exempt. The opinion was delivered by Justice Wilkes; Judge Beard offered a dissenting opinion.

James McAllister rendered a decision on Feb. 13 in a suit that had an interest for organized labor throughout the State. The State Comptroller, acting under the advice of the Attorney-General, had claimed for the first year's salary of M. J. Noonan, State Shop and Factory Inspector, on the ground that while the amended act of the last General Assembly appeared to apply to him as at a salary of $1,200, payable monthly, instead of fees to be paid by the factories inspected, no provision had been made in the appropriation bill for the purpose. The Supreme Court held that the act of 1901 placing the inspector on a salary amounted in law to an “appropriation,” as this term is used in the Constitution of the State, and that the law that fixed the salary fixed the manner of payment and the time. The Supreme Court affirmed the ruling of the lower court, which had sustained the contention of the inspector. As the laboring classes regarded the duties performed by the inspector as essential to the welfare of those working in shops and factories, they attached much significance to the decision.

Proposed Constitutional Changes.—During the last session of the Legislature several bills and resolutions were passed to amend the State Constitution. These proposed amendments provide for electing the Secretary of State, Treasurer, and Comptroller by the people for four years; for local road, fence, and stock laws; for preventing municipalities from incurring indebtedness exceeding 10 per cent. of the value of taxable property; for special assessments on parts of property for local improvements; for exemption of new industries from taxation for a period of not exceeding ten years; for election of the Governor for a term of four years instead of two, as at present; and for an increase of the terms of sheriff, trustee, and register to four years, but making them ineligible to a second term immediately succeeding the first.


The platform approved "the principles of the platform at the last national convention of the Democratic party"; condemned the Republican policy in the Philippines; declared against an increased standing army, favoring State militia; denounced Republican extravagance; supported the construction of the Nicaragua Canal; expressed sympathy for the Boers; favored liberal commercial relations with Cuba; approved Gov. McMillin's administration; approved the public-school system and the textbook law; called for the establishment of good roads; declared in favor of holding a State fair, and of the Legislature setting apart an adequate sum for the purpose; demanded a revision of the State laws on the inspection of coal-mines and factories to afford better protection for the laboring classes.

The Republican State Convention met in June and nominated Judge H. T. Campbell for Governor and J. J. Elliott for Railroad Commissioner. The platform approved the measures inaugurated by the national Republican party, through President McKinley, and being carried out by President Roosevelt, together with the policies, touching both home and foreign affairs, that attacked the Democratic administration of State affairs, and demanded such changes and reforms as would be in harmony with true republican principles; insisted on the adoption of a revision of the election laws on a plan which it suggested, and on the improvement of the public-school system; declared for extending the operation of the 4-mile law to towns having 5,000 inhabitants; and favored the adoption of several amendments to the Constitution.

All the Democratic nominees were elected in November. The canvass resulted in 108,132 votes for Governor, 100,149, which was 22,235 less than in 1898. The vote for Governor was as follows: J. B. Frazier, Democrat, 98,384; H. T. Campbell, Republican, 59,002; R. S. Cheves, Prohibitionist, 2,193.

Texas, a Southern State, admitted to the Union Dec. 29, 1845; area, 265,780 square miles. The population, according to each decennial census since admission, was 212,592 in 1860; 604,215 in 1870; 818,759 in 1880; 1,591,749 in 1890; 2,235,523 in 1890; and 3,048,710 in 1900. Capital, Austin.

Government.—The following were the officers of the State for the year: Governor, Joseph D. Sayers; Lieutenant-Governor, J. N. Browning; Secretary of State, John G. Todd, appointed by the Governor; Treasurer, J. W. Robbins; Comptroller, R. M. Love; Superintendent of Public Instruction, Arthur Lefever; Commissioner of Agriculture, Jefferson Johnson; Railroad Commissioner, L. J. Storey; Adjutant-General, Thomas Scourry; Commissioner of the General Land Office, Charles Rogan; Attorney-General, C. K. Bell; Chief Justice of the Supreme Court, Reuben R. Gaines; Associate Justice, Thomas J. Brown and F. A. Williams; Clerk, Charles S. Morse—all Democrats.

The term of State officers is two years. They are elected on the Tuesday after the first Monday in November of the even-numbered years. The Legislature meets biennially on the first Tuesday of the odd-numbered years. The session may continue indefinitely, but the members receive $5 per diem for the first sixty days, after that $2 per diem. There are 31 Senators elected for four years, and 128 members of the House of Assembly, elected for two years.

Finance.—The Legislative Investigating Committee compiled the following report on the State treasury on April 26. The amount of bonds was found to be $11,119,236.40, classified as follows: To the credit of the permanent school fund, State bonds, $2,108,018; trust fund, $4,458,772; county, 10,569,273.35; city, $970,387.55; independence
ent school district, $93,500. To the credit of the permanent university fund, State bonds, $579,700; to the credit of the Blind Asylum land sales account, State bonds, $115,500; to the credit of the Deaf and Dumb Institute land sales account, State bonds, $61,000; to the credit of the Lunatic Asylum sales account, State bonds, $111,700; to the credit of the Agricultural and Mechanical College fund, State bonds, $209,000; to the credit of the Orphan Asylum land sales account, State bonds, $11,200; special loan tax certificates of public debt, $194,408.50; escheated estates notes, $1,079,409.

Valuation.—The totals of the taxable real and personal property in Texas, reported by the Comptroller, Nov. 12, showed a decrease in live-stock values, but an increase in implements, machinery, tools, money, and credits. Of the land, 139,940,030 acres were valued at $435,215,410, an increase of 3,238,761 acres, valued at $14,801,809; town and city lots, $210,103,161, an increase of $11,273,226; 1,555,872 horses and mules, $38,028, 646, an increase of 21,362 head, decrease $1,555,994 in value; 5,757,300 cattle, $74,228,486, increase 689,493 head, decrease $339,847 in value; 14,449 jack and jennies, $469,631, an increase of 231 head, decrease $7,009 in value; 1,521,834 sheep, $2,071,297, increase 16,407 head, decrease $34,567 in value; 659,132 goats, $458,172 in value; 4,965 head and $6,137 in value; 1,014,315 hogs, $1,608,593, decrease 364,161 head and $850,304 in value; 28,808 dogs, $183,348, decrease 14,044 head, increase $119,242 in value; 10,681 miles, $7,227,725, increase 640 miles and $3,276,600, rolling-stock of railroads, $10,389,233, increase $383,374; city-street railways, 255 miles, $1,346,401, increase 50 miles and $290,268 in value; 8,117 telegraph and telephone lines, 23,800 miles, $2,509,365, decrease 3,933 miles, decrease $71,289 in value; steam, sailing, and other vessels, 200, $365,300, increase 5 and decrease $35,225 in value.

Banking.—In December there were 345 national banks in operation in the State. Outside of the reserve cities, Dallas and Houston, the total capital was $253,100,280; surplus, $6,164,032.95; individual deposits, $65,606,686.96. For Dallas and Houston the principal items were: Dallas—capital, $4,050,000; surplus, $1,061,000; individual deposits, $4,173,000; National Bank deposits, $82,161,634; State and private banks, $340,018; United States deposits, $884,579. Houston—capital, $1,450,000; surplus, $850,000; individual deposits, $3,538,660; National Bank deposits, $1,965,386; State and private banks, $685,541; United States deposits, $100,000. The banks of Texas are in an exceptionally good condition.

Education.—The Treasurer's report showed that the school fund aggregated $40,283,330.54. This amount represents notes, obligations, and other securities purchased, resulting from the sale of 21,905,906 acres of its select and choicest land, including its timber, of which 14,694,426 acres have been sold since the act of 1885 became law. There are still unsold 22,080,525 acres, but most of it is in the extreme western part of the State, and on the Rio Grande, where, from excessive droughts, the lack of water, or the general topography of the country, the land may never become valuable. As great is as the demand for land for grazing, there are about 7,500,000 acres lying idle.

The remedies proposed by the State Land Commissioner in his biennial report, filed in November, would reduce the divide between $2 an acre, except for watered land, and raise that to $3 an acre; to sell no land except at public outcry, and then only to actual settlers; and to sell no land below the minimum price fixed by law, and none unless a certain number of bidders are present.

The attendance of students at the opening of the State Agricultural College, in Bryan, at the opening, Sept. 10, was the largest known in the history of the institution. The work on the new chemical and veterinary laboratory was finished, and the building was ready for occupancy Oct. 1.

The summer session of the University of Texas in Austin, closed July 26, and was the most successful ever conducted. The number of students enrolled was 222.

The Penitentiary.—The records of the State Penitentiary, Sept. 25, showed the number of convicts that were killed in the past few years while attempting to escape. In 1901 the number was 15. During the term of Gov. Culberson, who preceded Gov. Sayers, the number was 37, and during the three terms before him the number was 88.

Agriculture.—The bulletin issued by the United States Census Bureau, July 7, showed that the farms of Texas in 1900 numbered 352,190 and were valued at $691,773,013. Of this amount 14.5 per cent. represents the value of buildings, and 85.5 per cent. the value of the land and improvements other than buildings. The total value of farm products for 1899 was $230,823,674, of which amount 30.4 per cent. represents the value of animal products, and 69.6 per cent. the value of crops. The value of other than farm products, cut or produced on farms. The total acreage of farm land has increased rapidly, being twice as great in 1900 as in 1890.

The value of live stock on farms and ranges, June 1, 1900, was $242,162,935, or 25 per cent. of the total value of farm property. Of this amount 59.5 per cent. represents the value of meat cattle other than calves, $93,830,208; 14.3 per cent. of cows, 10.4 per cent. that of mules, 8.3 per cent. of dairy cows, 3.2 per cent. of swine, 1.7 per cent. of sheep, 1.5 per cent. of goats, and 1.1 per cent. of all other live stock.

The Boll-Weevil.—The ravages caused by the boll-weevil, especially in the last two months of the year, were so disastrous that the United States Secretary of Agriculture was of opinion it must be necessary, in the work of exterminating the insect to plant other crops. By this the world's cotton market would be materially affected. A report issued by the vice-president of the Santa Fe Railway estimated the cotton-crop along the Santa Fe and the International and Great Northern at 40 per cent. less than last season. The boll-weevil was responsible for $538,666; 14.3 per cent. that of horses, 10.4 per cent. that of mules, 8.3 per cent. that of dairy cows, 3.2 per cent. that of swine, 1.7 per cent. that of sheep, 1.5 per cent. that of poultry, and 1.1 per cent. that of all other live stock.

Though still confined to Texas, says the report, the territory occupied by the cotton boll-weevil includes about 28 per cent. of the cotton acres in the United States. This acreage in 1900 produced 34 per cent. of the total crop of this country, or one-fourth of the crop of the world for the year.

This region is bounded on the north by the Red river and on the east by the pine forests, and separates the Trinity and Sabine rivers. It includes the 22 counties which, in 1899, according to the twelfth census, produced 40,000 bales of cotton more each. A conservative statement would place the loss that the insect caused to Texas in 1902 at $10,000,000.
It is wholly beyond possibility that the weevil is not a pest. It has infested Arizona and since reaching Texas, as well as the history of many related injurious insects, offers no hope that it will ever be much less destructive than now. Notwithstanding, it is believed that cotton can be grown profitably by means of a few expedients in planting and managing the crop where the insect is present.

During the season, the division of entomology was engaged in field experiments to demonstrate that cotton can be produced successfully in spite of the boll-weevil. Some of this work was conducted under the guidance of Col. E. S. Peters, in the Brazos valley, near Calvert. This valley is, on account of its low and moist situation, the presence of timber, and the almost exclusive production, a most favorable variety for the cotton weevil. The experiments involved the following:

1. Early planted cotton, with a thorough cultivation, produced two-thirds of a bale per acre;
2. Early planted cotton, with careless cultivation, produced one-ninth of a bale per acre;
3. Early planted cotton, with fair cultivation, produced one-half of a bale per acre;
4. Late planted cotton, with wide rows, produced about one-fourth of a bale per acre;
5. Late planted cotton, with narrow rows, sprayed thoroughly, yielded about one-fourth of a bale per acre.

In a report submitted by Congressmen Slayden, Dec. 17, to the committee on Agriculture, the loss due to the boll-weevil in 1902 was placed approximately at 500,000 bales, with about $25,000,000. This report was based on information gathered by the managers of the several Texas railroads that run through the infested section. The entomologist of the Texas State Agricultural College, Fig. 17, the report of the University of Texas, Dec. 17, stated that the acreage was very small in the State, and that the yield was low.

The Oil-Fields.—The report of the United States Geological Survey, Oct. 25, states that the Spindle Top oil-rock contains about one-fourth of its volume in oil. At an estimate of 1 barrel obtained for every 26 cubic feet for Spindle Top, and a little less for other fields, there should be a yield equal to Baku, in Russia, and a much greater output than that at any other American field. The report says that the apparent quantity of illuminating oil may be increased by methods that have examined the facts that the Gulf Coast petroleum is unsuited to the production of illuminating oil, and that it is doubtful if it can be made to yield gas of high quality. Its value as a source of asphalt and gas oil is as yet undetermined. Experiments seem to establish both its availability and its economy as a generator of steam. The oil output of the average daily flow of 162 wells now operating on Spindle Top is not to exceed 12,000 barrels.

The oil industry of South Texas was greatly advanced by the discovery of several points outside of Spindle Top. The steel, earth, and wooden storage at Spindle Top, Jan. 1, 1903, was 13,253,000 barrels. The oil in storage Dec. 1, 1902, was 8,470,000 barrels. The oil in storage Jan. 1, 1903, was 8,470,000 barrels.

Legal Decisions.—On May 26 the Supreme Court decided the case of the State of Texas v. the Houston and Texas Central Railway Company et al., from Travis. This was a suit instituted to recover 170,880 acres in Lipscomb County, located and surveyed by virtue of certificates issued to the railroad company under several acts granting 16 sections of land to any railroad company for every mile of road constructed and operated. The lands were granted the railroad company for miles of sildings constructed, and not main line. However, the recovery was sought on these grounds: First, that at the time the sections of railroad were completed for which the certificates were issued the law which authorized a grant of lands to railroad companies was thereafter amended by its own limitation and had also been repealed by the Constitution of 1869; second, that the certificates by virtue of which the land in controversy were located were issued for side-tracks, and that the law did not authorize the issue of certificates for sidings; and third, that if the grants were valid the title thereto had been forfeited by failure of the company to continue them within the time prescribed by the statute which authorized the grant. The court decided in favor of the company. Had it decided otherwise, the titles to 10,000,000 acres would have been placed in jeopardy, but as it is they are safe, and innocent third parties, who purchased the lands, will not suffer.

A decree rendered by the Court of Appeals, Nov. 19, was of special importance on account of the effect it must have on many other suits filed by the Attorney-General to recover land held by virtue of Mexican land grants, by the University of Texas, Dec. 17, stated that the acreage was very small in the State, and that the yield was low.

Confederate Reunion.—About 12,000 Confederate veterans held their annual reunion in Dallas on April 23. Gen. Gordon, commander-in-chief, called the convention to order. Among the resolutions adopted was one withdrawing the support of the Confederate veterans from the university because of an alleged disparaging article by a professor of that institution on Southern women. Another called for the preparation of school histories that would dwell on the Southern leader.
Davis monument fund showed that there was $34,000 on hand, but $10,000 more was needed. A proposal to change the Confederate Memorial Day from June 3, the birthday of Jefferson Davis, failed, but a resolution was passed allowing any State desiring a different date to take individual action. The Credentials Committee reported that 707 camps had paid their per capita tax, and were entitled to 2,252 votes, while 748 camps were reported in arrears. The report of the Committee on Battle Abbey showed that of the $200,000 necessary for the reconstruction of the museum the treasury has now $176,063. Gen. Gordon was reelected commander-in-chief. About 150,000 persons attended the reunion from all parts of the South. New Orleans was chosen as the next meeting-place.

Change of Boundaries.—On Dec. 6 a report was filed in the State Land Office describing the work done under the act of Congress of 1901 requiring the Secretary of the Interior to establish the northern boundaries of Texas from the Red river, in Childress County, north to and including Lipscomb County. It was first understood that the line was to run 25 miles of Oklahoma; but the report fixes the meridian so that Texas loses a strip of land three-fourths of a mile wide, taking off that much of the eastern edge of Lipscomb, Hemphill, Wheeler, Collingsworth, and Childress Counties, a total loss of 1127 sections or 7,200 acres, which has always been regarded as part of Texas.

The condition prevailing on the west side of the State, the entire length of the Panhandle, United States surveyors having fixed the one hundred and third meridian, which forms the western boundary of Texas, so that a strip of 3 miles is taken from all the northern counties, making a total of about 300,000 acres.

New Mexico also disputes the boundary-line extending from the westernmost point of Texas east along the northern edge of El Paso, Reeves, Loving, and Winkie Counties, to the point where it turns north, it then being in the 3-mile controversy.

Lawlessness.—On March 7 a party of whites went at night to the home of Nathan Bird, a negro farmer living near Prairie Lea, and demanded his son, but were refused. The son was accused of having beaten a white boy and broken his arm. The boy was shot and instantly killed the father. They carried away the son, and are believed to have killed him, as no trace of the boy has since been found.

At Hemstead, Oct. 21, 2 negroes, Reddick Barton and Jim Wesley, were tried for criminal assault and murder, convicted and sentenced to death. The people were unwilling to wait for the delay of thirty days prescribed by law to take place between the sentence and its execution. They seized one prisoner in the court, the other in the jail and hanged them from the arm of a telegraph-pole in the public square.

A negro named Dudley Morgan was burned alive at the stake at Lansing, May 22. When it was learned that he was on the train being brought to Lansing to be identified by the woman he had assaulted, about 200 men, armed with Winchester rifles, surrounded the train as it entered the city, seized the man, and conducted him to the spot where the execution was to take place. Morgan confessed having committed the crime, and after he was chained to the rail with his hands and legs from the rear, the mob began to take ties from a fire already started and burn out his eyes, and held the red-hot and burning timbers to his neck, burning his clothes off and other parts of his body. Then the body was tortured until death came to his relief, the crowd all the while crying "Let him die slow." A large number of women from all parts of the surrounding country were present at the spectacle.

Disasters.—On March 7 the Southern Pacific train No. 9 went into a ditch 25 miles west of Sanderson. The wreck took fire and 12 persons were consumed by the flames before aid could reach them, and 29 were injured, many of whom died. The wreck occurred in the middle of the night.

Several fires occurred at Dallas after 3 o'clock in the morning, April 22. Two men were fatally injured. The Dorsey Printing Company, one of the largest establishments of the kind in the city, was destroyed. The losses aggregated about $500,000.

A terrible cyclone struck Goliad on May 1, completely destroying the western part of the city—a strip 3 miles wide and 47 miles long. The total amount of about 125. The number of those injured was about the same, not more than half of whom were expected by the physicians to recover. A fire occurs as a result of the cyclone at the Landon Hotel and the block in which it was situated were reduced to ashes. Ten guests of the hotel were burned to death, and a great many others were seriously injured.

The Santa Fé express was wrecked by a broken rail 16 miles from Brownwood, and about 30 persons were injured, some fatally.

Destruction along the Rio Grande.—In April it became known that more than half of the 11,000 people in Starr County, and of the 6,000 people in Zapata County, were in a destitute condition. No corn had been raised for two years. The drought began fourteen years previously, and had grown worse year after year. The destitute region is from 50 to 100 miles from the nearest railway point, and the inhabitants were without horses. As soon as the situation became known, successful efforts were made by State officials and private individuals to relieve the distress.

Galveston.—The value of the year's business exceeded that of any previous year. The total value of the business of the port for 1902, both export and import, was $347,963,103, the corresponding figures for 1901 being $327,771,592. The bank clearings for the year were $1,04,997,296, compared with $708,435,800 for 1901. The custom-house receipts for the year were $283,508, compared with $109,064 for 1901. The value of Galveston's foreign exports for 1902 was $92,766,044, compared with $106,526,508 for the preceding year. The decrease was due to the diminished crops of cotton and grain.

In 1902 181,335 tons of oil cake and meal, valued at $4,075,357, were exported through Galveston, compared with 256,882 tons, valued at $5,568,440, in 1901. In 1902, 3,740,508 gallons of cottonseed oil, valued at $1,944,676, compared with 4,933,371 gallons, valued at $1,502,307 for 1901. The value of $523,302 was exported, compared with a valuation of $479,457 on lumber exported in 1901. The live-stock exports were valued at $247,892, compared with $199,717 in 1901. The foreign imports through Galveston in 1901 were valued at $1,312,304, compared with $1,048,888 in 1901. The coastwise trade was more than doubled during the year, and the Southern Pacific Steamship service of the mob began to regular service to Brownsville and Port Arthur. A feature in the foreign tonnage was the size.
ships. Two hundred ships, with a net tonnage of 533,017, entered the ports and 300 ships, with a tonnage of 722,701, cleared. During the year 1901, 291 ships, representing a tonnage of 645,024 entered, and 347 ships, representing a tonnage of 700,100, cleared.

This year $1,715,217 was spent in Galveston for permanent improvements. The appropriation made by Congress for deepening and widening the channel in the inner harbor was $310,000; for repairing the jetties, $750,000. Including the seawall and Government projects money is available to the amount of $3,130,583 for improvements in 1903.

Political.—The Prohibition Convention met in Dallas, July 4. The platform consisted simply of a denunciation of the liquor traffic and the Government's participation in it through the licensing system.

In the platform of the Socialist Convention, Dallas, July 4, the acceptance of the principles of Socialism was held to be the only solution of the labor and capital question. Labor conditions, especially as they affected children, was held to be worse in Texas than in the East and North. The platform of the Populist Convention, at Fort Worth, Aug. 12, reaffirmed the national platform of the party, and called particular attention to the initiative and referendum as the only method by which the people could express themselves fully and freely on political questions. The name of The Allied Populist Party of Texas was adopted, and an invitation was extended to the laboring people to unite with that body.

The platform of the Democratic Convention, which met in Austin, July 17, declared faith in the principles of the party as set forth in the Kansas City platform; pointed out the dangers of imperialism, centralization, trusts, monopolies, mergers, and other combinations as being hurtful to the people; commended the efforts of the Senators and Representatives in Congress from the State for their efforts in aid of tariff reform; of a canal connecting the Atlantic and Pacific Oceans; of election of Senators by direct vote of the people, and not by the State Legislature; for the impeachment of James G. McVicker, Mrs. Rebecca E. Little, Joseph T. Kingsbury, Moses Thatcher, Thomas R. Cutler, and W. W. Riter; Commissioner of Statistics, Charles DeMorse; Commissioner of Health, Dr. T. B. Beatty; Secretary of the Land Board, Byron Groo.

The term of the State officers is four years. They are elected by the people at the general elections. The Legislature meets biennially in January of the odd-numbered years; the session is limited to sixty days.

Education.—According to the yearly statistics compiled in the office of the State Superintendent, in 1902 there was a school population of 76,486. This includes all between the ages of six and sixteen, and shows a decrease over the preceding year of 97. The expenditures for school purposes in 1902 were $1,459,446.06. In 1901 they were $1,396,721.70, a per capita of $19.10 and $17.77 respectively. The maintenance expenses of the schools make the annual cost of education per capita $5.20.

In the financial condition of the public schools there has been a gradual improvement ever since statehood, and the revenues derived from the sale of Government lands, set aside for school purposes, is constantly increasing. The receipts for 1902 are the greatest yet, and the sources from which they come are increased. The following are the sources: State tax of 3 mills, county school tax, district levy, and special tax and sinking-fund tuition. The funds for 1901 amount-
ed to $1,285,454.12; for 1902 to $1,433,897.06. The number of teachers employed in the former year was 1,531, and last year 1,503. The average salary for male teachers in 1901 was $65.85, and for females $45.08. In 1902 these amounts were increased to $66.81 and $48.12 respectively. The number of schoolhouses was increased from 694 to 711. The bonded indebtedness of the State in 1901 was $3,065,605.02; in 1902 there was an increase of $155,534.62. The number of graduates was increased from 1,710 in 1901 to 2,051 in 1902. The report of the University of Utah, at Salt Lake, shows that in the school year of 1901-02 there was an enrolment of 778 students—388 men and 390 women. The total registration for 1902-03 was 814, of whom 401 are men and 413 women. Of these, 75 are in the School of Arts and Sciences, 86 in the State School of Mines, 73 in the State Normal School, and 87 in the State Normal Kindergarten, with 406 in the preparatory school and 114 in the summer school. Of the total number, 26 come from outside Utah. The State School of Mines, established in 1901, has grown greatly, and the regents announce that an improvement of the course is contemplated and an enlargement of the school. The Branch Normal School, at Cedar City, Dec. 1, 1902, had an attendance of 245, an increase of 60 over the previous year, and the State Agricultural College, in Logan, also showed a large increase in attendance, the enrolment for the year 1902-03 being 540.

Finances.—There has been a steady improvement in the finances with each succeeding year since statehood, and the present condition is very gratifying. While there has been a gradual improvement in valuations of taxable property, which raises additional revenue, the demands upon the State are likewise increasing, especially in regard to educational, charitable, and penal institutions. In 1901 the valuation of taxable property in the State was $112,583,130. The value for last year is given as $118,019,402. The bonded indebtedness of the State is $900,000, all due for bonds issued during Territorial days. By reason of a constitutional provision, the total bonded indebtedness of the State can at no time exceed $1,000,000. The State has no floating indebtedness. In 1901 the gross tax was $900,000, and the net tax charged was $900,448.31. In 1902, with a total valuation of $118,019,402, the gross tax was $920,551.72, and the net tax charged was $920,093.75. In 1901 the value of personal property, all animals excluded, was $17,007,114. Last year it was $18,521,875. The receipts from all sources for 1901 were $1,293,725.42, and the disbursements $1,205,163.69. In 1902 the receipts were $1,409,256.47, and the disbursements $1,449,654.68. Warrants are outstanding to the amount of $24,491.76. The cash on hand in the treasury Dec. 31, 1902, was $565,259.31. On an estimated valuation of $120,000,000 for the biennial period of 1903-04 the State Auditor estimates the total requirements at $1,675,250.14, and the estimated revenue for this period is $1,532,507.87.

Railroads.—The mergers of 1902 were felt in Utah, with the result that at the end of the year there were fewer actors in the employ of the railroad systems in Utah than there had been twelve months before. On the other hand, there was far more construction. The Central Pacific has been active between Ogden and San Francisco, improvements for which $20,000,000 has been appropriated. Included in this is the great Lucin Cut-Off across the bosom of the Great Salt Lake, which will cost several million dollars. The Oregon Short Line is constructing what is known as the Leamington Cut-Off, with its 117 miles of track and road-bed. The Lucin Cut-Off will shorten the distance to San Francisco 102 miles. Other construction under way or accomplished is a line of the Oregon Short Line from Corinne to Brigham City, and the building of the Rio Grande Western of the first 20 miles of the cut-off from Salina to connect with a point near Green River, Utah.

Mining.—The metal output of Utah in 1902 was $20,985,337.82, an increase of $3,404,737.84 over 1901. The output in detail was as follows in 1902: Lead, 146,975,597 pounds, at 4 cents a pound, $5,879,143.88; copper, 20,375,760 pounds, at 11.59 cents a pound, $3,048,408.10; silver, 15,882,733 ounces, at 52.15 cents, $8,160,325.44; gold, 194,863 ounces, at $20 an ounce, $3,897,260; total, $20,985,337.82.

The dividends paid by Utah metal mines in 1902 amounted to $5,025,500, an increase over the previous year of $578,600.

One new smelter, with a daily capacity of 1,500 tons, and another of 1,000 tons, previously, have been completed in the Salt Lake valley. Work has begun on a 1,500-ton smelter at Lewiston, Beaver County, on one of 100 tons capacity near St. George, and on another of 50 tons daily capacity at Casbin. The development has been greatest in the copper and gold mines of Beaver County, and the silver, lead, gold, and copper mines of Salt Lake City.

New producing properties have been opened up in various districts, despite the reduction in price of both copper and silver.

Iron, County, Utah, contains some of the largest high-grade iron deposits in the world, and capitalists have taken up the work of developing these resources, with a view to establishing iron manufacturing plants in the State.

This year 11 new mining companies were organized under the laws of the State, with a total capitalization of $60,945,900.

Salt.—The production and refining of salt is yearly growing in importance. In the Great Salt Lake there is an apparently inexhaustible supply of this commodity. Among the largest plants are the shores of the lake in that of the Inland Crystal Salt Company, which in 1902 produced 20,000 out of the 35,000 tons shipped out of Utah. Of this output, mining companies in this and adjoining States use nearly 50 per cent. In the making of their ores, and the value of the salt was $17,007,114.

Beet-Sugar.—With 12,907 acres planted in sugar-beets, 154,485 tons were produced and filtered into the mills of the Utah Sugar and the Ana- gymated Sugar Companies. The average yield per acre was 12.05 tons, and 31,800,000 pounds of sugar was produced. In the season of 1902 $40,000 was paid out for beets alone by the Utah Sugar Company and the monthly pay-roll at the mill exceeded $25,000. The contract price per bushel hauled into the shed was $4.75 for the Utah Sugar Company and $4.50 for the Aggregate.

Coal.—The State has several large mines and innumerable smaller ones in many counties, but they convey no adequate idea of the vastness of the coal deposits in the southern parts of the State the outcroppings are minute testimonials of the great bodies of fuel under the surface. The coal of Utah is not ex- celled in that of the major State in the Union. It is of two classes—steam-producing and coke-making. The coke industry of the Stati is in its infancy, the production for 1902 being 125,924 tons, against 51,007 for the preceding
year. About 60 per cent. of the coke was used in the State, and the remainder in adjoining States.

The production of coal in Utah in 1902 was 1,154,436 tons, against 1,152,524 tons in 1901. The value of the product, based on its price at the mines, $1.50 a ton, was $2,462,154 this year, against $1,829,336 in 1901. In 1902 1,183 men were employed in the coal-mines. In 1901 there were 1,724. The number of accidents in Utah coal-mines was 21, against 26 in 1901. The fatalities numbered 9, against 7 in the preceding year. Eight new mines were opened in 1902, 2 in Carbon County and 6 in Emery.

Live Stock.—The statistics for 1902 show a decrease in the number of live stock, but an increase in value, this being due to the fact that in the past year the stock growers have been encouraged by State and county aid to enhance the value of their property by breeding up. The State at present under the auspices of the State, is especially responsible for this change. In 1901 there were 72,072 horses and mules in the State, valued at $1,530,761. Last year there were 72,688, valued at $1,988,734, valued at $3,734,672. The number decreased last year to 204,179, valued at $3,479,732. In 1901 1,331,383 Utah sheep were numbered. Last year the number fell off to 1,585,801, and their value to $3,657,269. The swine in 1901 numbered 16,088, and were valued at $51,606. The following year they numbered 16,789, valued at $54,283. The poultry, including turkeys, geese, ducks, and chickens, numbered last year 588,518. There were 19,329 stands of bees, which produced 957,025 pounds of honey.

Farm Labor.—Farm-hands to the number of 3,221 earned $1,130,430, an average $17 p month of $29.25. The women on farms, numbering 646, earned $56,330, and their average wages per week was $2.48. Both men and women received board and lodging in addition.

State Lands.—When Utah became a State, Congress granted to her certain tracts of land for the support of public institutions. Sales of State land have continued throughout the year, and the funds have been invested as rapidly as possible. In 1902, the investments of the several land-grant funds aggregated $718,188.50, as follows: Agricultural College, $33,578.25; Deaf and Dumb School, $147,803.03; Insane Asylum, $20,800; Institution for the Blind, $8,986.30; Miners’ Hospital, $9,014.10; Normal School, $13,778.45; public buildings, $10,280.60; reservoirs, $82,577.01; Reform School, $22,522.45; general school fund, $290,165.50; School of Mines, $23,484.25; university, $18,365.01. The rates of interest vary from 3.75 to 7 per cent. The investments are in farm mortgages and in Government and municipal bonds. The land sold for $1.25 an acre and upward, much of it being paid for in 10 annual installments.

Fish and Game.—In the two years 1901-02 the State Fish and Game Commissioner planted 4,722,000 fish in the waters of the State. The fry were principally those of the eastern brook trout, with some Montana grayling, landlocked salmon, and native trout. The product came largely from the State fisheries, with some importations from other States. Trout in the mountain streams and black bass in the lakes have been found to thrive best. In the two years 1900-01, 1,343,140 were taken for commercial purposes from Utah and Panguitch lakes. No account was kept of the fish taken from the streams and other lakes, or of those caught for private use. Of these, the black bass at 10½ cents a pound and the trout at 20 cents a pound were the most valuable. Many fish were lost through irrigation ditches and canals, and still more were killed by sawdust from the sawmills along the streams.

There has been a slight decrease in the number of deer. This is due to the hunters and to the fact that the sheep are destroying the ranges in the State, driving the deer elsewhere. Antelope are holding their own, and even increasing a little in number, owing to the strict law against their being killed at any time. The elk are nearly all gone, except in the high peaks of the Uintah mountains in the northeastern part of the State. Mountain sheep are practically extinct, although a few have been seen in Beaver County. Of the game-birds, the sage-hen is still plentiful, despite the large number of hunters. The blue grouse, pine-hen, or fool-hen, is holding its own. The sharp-tail grouse or prairie-chickens are decreasing, while the ruffed or drummer grouse are becoming rare. The "Bob White," or eastern quail, has been almost exterminated. The California quail, known locally as the "Dixie" or Gambell's partridge, Chinese pheasants are propagating rapidly and keeping ahead of the hunters. More stringent game-laws have lost 100 the number fell off to 1,585,801, and their value to $3,657,269. The swine in 1901 numbered 16,088, and were valued at $51,606. The following year they numbered 16,789, valued at $54,283. The poultry, including turkeys, geese, ducks, and chickens, numbered last year 588,518. There were 19,329 stands of bees, which produced 957,025 pounds of honey.

The irrigation law gave a fresh impetus to irrigation in Utah. The most important of the single events in this line was the appropriation by the Utah Sugar Company of the property of the Bear River Irrigation and Ogden Water-Works Company. This latter company owned large irrigation works and a great tract of irrigable land in Bear river valley. The new owners have begun the work of extending the canals, and are bringing large numbers of farmers into the region. The State Engineer, in his annual report, mentions projects that are to be carried out, with aid from the federal government. The most important of these is the Enterprise for the development of Utah Lake as a storage-reservoir. It is proposed to raise the level of the lake by means of dikes, and increase the flow into it by diverting Strawberry creek into Diamond Fork, thence into Spanish Fork and Utah Lake. A 34½-mile tunnel through the Wasatch mountains would be needed to accomplish this. The enterprise was approved by the State Irrigation Congress, which met in Salt Lake City, Feb. 28 to March 1, and again in April. This congress was called by the Governor, and representatives were sent from every county.

The irrigation policies of the State and nation were discussed, and it was decided to ask the help of the United States Government for the Utah lake enterprise. Among the new irrigation enterprises mentioned by the State Engineer is one to construct a reservoir in Bear river valley of the storage capacity of 220,000 acre-feet, the construction of an immense canal in the eastern part of the State, drawing water from Grand river, the building of an immense reservoir in Emery County, and the further utilization of Weber river.

State Institutions.—Special attention is given to manual training by the management of the State Industrial School in Ogden. The boys are
trained in blacksmithing, carpentry, and shoemaking, and the girls in needlework, sewing, fancy work, and knitting with knitting-machines. An increase in the percentage of reformation is noted.

The School for the Deaf, Dumb, and Blind, at Ogden, was attended by 95 deaf and 18 blind pupils. Besides the regular scholastic studies, carpentry, printing, shoemaking, domestic science, dressmaking, bartering, blacksmithing, music, canoe-seating, basket-making, hammock-making, and fancy weaving were taught.

The State Insane Asylum contained 350 inmates, an increase of 30 in two years. The average daily cost of each patient was 32.4 cents, a slight increase over the preceding two years, due to the advanced price of commodities. The board of trustees has requested the Legislature to change the name of the institution to Mental Hospital.

The number of convicts in the Utah State Penitentiary decreased 28 in two years. The per capita cost of maintenance rose from 42 cents a day in 1899 to 56 cents in 1902. The manufacturing department made all the clothing and shoes worn by prisoners, and in addition made and sold socks, brushes, saddle-cinches, clothing, and other articles at a profit of $5,336.62. In two years the Board of Pardons granted 57 pardons, commutations of sentence, and 12 paroles.

The Utah Art Institute, supported by the State, held exhibitions in Salt Lake City and Provo this year, besides several smaller exhibitions of school drawings. The State acquired the Allen Art collection, which is kept in temporary quarters in the State-House until a permanent exhibition hall can be secured.

Political.—In April, Reed Smoot, an apostate in the Mormon Church, announced his candidacy for the United States Senate, and he succeeded in capturing a majority of the Republican County conventions at which candidates for the Legislature were nominated.

The Democratic State Convention met in Provo and nominated W. H. King for Congressman at large and Richard W. Young for Justice of the Supreme Court.

The Republican Convention met later in Ogden, and nominated Joseph Howell for Congress and William M. McCarty for Justice of the Supreme Court.

The Socialists nominated Matthew Wilson for Congress and Warren Foster for Justice of the Supreme Court.

The election, Nov. 4, resulted as follows: Congressman, Howell, 43,710; King, 38,196; Wilson, 2,936. Supreme Justice, McCarty, 43,214; Young, 38,432; Foster, 3,969.

The Republicans elected 6 out of 9 Senators, giving them, with hold-overs, 12 members to 6 Democratic members. Forty Republicans were elected to the house and 5 Democrats. As a majority were pledged to Smoot, his election was assured.

VERMONT, a New England State, admitted to the Union March 4, 1791; area, 9,565 square miles. The population, according to each decennial census, was 154,465 in 1800; 217,893 in 1810; 235,866 in 1820; 280,635 in 1830; 281,948 in 1840; 314,120 in 1850; 315,069 in 1860; 350,531 in 1870; 332,286 in 1880; 332,422 in 1890; and 343,841 in 1900. Capital, Montpelier.

Government.—The following were the State officers in 1902: Governor, William W. Stickney; Lieutenant-Governor, Martin F. Allen; Secretary of State, Fred. A. Howland; Treasurer, John L. Bacon; Auditor, Orton M. Barber; Adjutant-General, William H. Gilmore; Superintendent of Education, W. E. Ranger—all Republicans; Supreme Court—Chief Justice, John W. Rowell, appointed by Gov. Stickney to fill the vacancy caused by the death of Russell S. Taft; Assistant Justices, Loveland Musson, John H. Watson, H. R. Start, James M. Tyler, W. P. Stafford, and Seneca Haselton; Clerk, M. E. Smiley—all Republicans.

State officers are elected biennially in September of the even-numbered years. The Legislature meets biennially in October of the same years. There are 30 Senators and 242 Representatives. The town system of representation is still maintained.

Finances.—The report of the Treasurer for the fiscal year ending June 30, 1902, shows the following totals of cash transactions of his office: Cash on hand July 1, 1901, $101,559.93; receipts, $1,465,088.46; disbursements, $1,261,079.11; cash on hand June 30, 1902, $324,969.28. From this last amount were payable by the State $235,036.07 apportioned for State school and highway taxes, aggregating $235,036.07 apportioned for distribution to the several towns and cities.

In the fiscal year ending June 30, 1901, $260,000 was borrowed for the use of the State, of which $160,000 was paid the same year. To the balance was added in the ensuing year $275,000, but all loans of this character were taken up prior to June 30, 1902. The expenditures for interest of all descriptions were $24,727.37 and $27,724.15, for the respective fiscal years.

The receipts on account of corporation taxes show considerable increases, the totals received from the various classes of corporations assessed on deposits, appraisal, or gross earnings for the years ending in 1901 and 1902 being $433,543.42 and $462,816.62, respectively. The increase in license taxes paid in the year ending June 30, 1902, was $16,418, or over $4,000 more than ever.

The Legislature of 1900 assessed a State tax of 15 cents on the dollar of the grand list of 1900, half to be paid into the treasury of the State or before Nov. 10, 1901, and the remaining half on or before June 10, 1902. The grand list for 1901 amounted to $1,730,149.92 and the tax aggregated $208,592.49.

The Legislature of 1900 provided for the annual assessment of a tax of 8 cents on the dollar upon the grand list for the support of public schools instead of 5 cents as theretofore. The assessment went into force Feb. 1, 1901, and it therefore does not affect the amount of the tax of 1901. This tax is distributed on or before July 10 annually among the several cities, towns, and unorganized towns, in proportion to the number of school children sustained during the school year ending March 31.

The State highway tax for 1902 assessed up to the grand list of 1901 amounted to $89,567. The amount of the 1901 apportionment brought forward for addition to the tax of this year was
afford equal school privileges as nearly as possible, at the discretion of the State Treasurer, the State Superintendent of Schools, and the examiner of teachers for Washington County. But no town shall receive any portion of this money unless said town shall raise at least 50 cents on the dollar on the grand list of said town for school purposes."

Montpelier.—Statistics regarding the growth of Montpelier in the past ten years have been compiled. There were 317 dwelling-houses erected, apart from remodeled houses or barns. There have been 60 other buildings erected for business, including blocks, manufacturing plants, etc. In addition to these over $200,000 has been expended in the erection of public buildings from which no taxes are derived. The valuation of real estate in 1901 was $3,064,930, and in 1891 $1,509,300.

Legislative Session.—The following is an abridgment of the more important acts passed by the Legislature at its biennial session in October, 1902.

No person shall, in order to aid or promote his own nomination, or the nomination of another person, as a candidate for public office, pay or contribute any money or valuable consideration for traveling, for writing and printing any letter, circular, or other publications not issued at regular intervals, whereby he may state his positions or views upon public or other questions; for stationery and postage, for telegraph, telephone, etc. No publisher of any newspaper shall accept payment for the support or advocacy in such newspaper or publication of the nomination of any person as a candidate for public office in this State.

Money loaned at a rate of interest not exceeding 3 per cent. per annum to any town, city, village, or incorporated school district by individuals living in such town, city, village or incorporated school district shall be exempt from taxation.

Women twenty-one years of age may be elected or appointed to the office of clerk of a town or to the office of treasurer of a town, or to both of said offices, and may be appointed town superintendent of schools.

No automobile or other motor vehicle shall be run on any public highway outside the limits of a city or town at a speed exceeding 15 miles an hour, and no such vehicle shall be run on any public highway within the limits of a city or town at a speed exceeding 6 miles an hour.

Every physician engaged in the practice of medicine in Vermont shall provide for the instruction of advanced pupils in higher branches of study in the high school or schools of the town. When no high school is maintained by a town, the board of school directors shall provide such instruction for such pupils in the high school of an incorporated school district or in an academy of the town. When no high school or academy exists within the town, the board of school directors shall provide such instruction for such pupils in the high schools or academies of other towns within or without the State.

A sum not exceeding $200 is appropriated annually to aid in defraying the expenses of the annual meeting of the State Teachers' Association.

The sum of $15,000 shall first be reserved from the amount of the State school tax paid by the several cities and towns into the treasury of the State. The remainder shall be distributed among the cities and towns in proportion to the number of school children in the same.
proposed local-option license law, pending the result of the vote upon the referendum, Feb. 2, 1903: the warrant of every town meeting to be held on the first Tuesday of March, 1903, and annually thereafter shall contain an article providing for a vote upon the question "Shall licenses be granted for the sale of intoxicating liquors in this town?" and that if a town voting in favor of license shall, upon the application of 6 voters, call a special town meeting to determine the kind of license to be issued.

The bill provides for 7 classes of licenses to be granted at fees ranging from $1,200 for a saloon to $10 for a druggist who can sell for medicinal purposes.

**Political.**-Four candidates for the governorship were in the field—John G. McCullough, Republican; Percival W. Clement, Fusion; Felix N. McGettrick, Democrat; Joel O. Sherburne, Prohibition. A split in the parties was caused by the agitation over the new license local-option measure favored by the Republicans. Those adhering to the prohibitory law enacted in 1882 supported the candidacy of Clement.

The platform adopted by the Republicans at their convention recognized the fact that the enormous business of the country, in its various departments, was now done by combination, corporate or individual, and disclaimed a spirit of unreasoning hostility to such combinations, but favored the utmost vigilance—legislative, judicial, and executive—in guarding the public abuse of combined power, the swift and sure punishment of greedy offenders of any sort, strict safeguards against overvaluation, issue of fictitious stock, and demanded public accountability of exact and verified statements by the officials of corporations and combinations that shall clearly show the public their exact financial condition.

The referendum resolution favoring a license and local-option measure to displace the prohibitory law of 1882 declares:

That the Republican party of Vermont adheres to its long-cherished belief that unrestricted traffic in intoxicating liquors is a public evil, and that the material modification of existing law on that subject should be made only after thorough discussion and by the deliberate will of the people. And we request the State Legislature at its next session to make provision for ascertaining the will of the people by direct vote upon the acceptance or rejection of a license and local-option law.

The platform also favored a law regulating primaries.

At the State election in September the following vote was polled: McCullough, 31,829; Clement, 28,009; McGettrick, 7,252; Sherburne, 2,460. A majority is 34,606, and therefore the election of Governor and Lieutenant-Governor devolved upon the Legislature. The 3 remaining State officers received the full party vote. The officers finally chosen were: Governor, John G. McCullough; Lieutenant-Governor, Zed S. Stanton; Secretary of State, Frederick G. Fleetwood; Treasurer, John L. Bacon; Auditor, Horace F. Graham; Adjutant-General, William H. Gilmour; Superintendent of Education, W. E. Ranger—all Republicans.

**VIRGINIA,** a Southern State, one of the original thirteen, ratified the Constitution June 25, 1788; area, 42,450 square miles. The population, according to the census of 1870, was 749,710 in 1700: 880,200 in 1800; 974,600 in 1810; 1,055,116 in 1820; 1,211,405 in 1830; 1,239,707 in 1840; 1,431,661 in 1850; 1,566,318 in 1860; 1,223,163 in 1870; 1,165,980 in 1880; and 1,534,184 in 1900. Capital, Richmond.

**Government.**—The following were the State officers in 1902. Governor, Andrew J. Montagu; Lieutenant-Governor, Joseph B. Willard; Secretary of State, D. O. Eggleston; Attorney-General, W. A. Anderson; First Auditor, Morton Marye; Second Auditor, Josiah Ryland, Jr.; Treasurer, A. W. Harman, Jr.; Superintendent of Public Instruction, Joseph W. Sarahall; President of the Supreme Court of Appeals; James Keith: Justices, S. G. Whittle, John A. Buchanan, George M. Harrison, and Richard H. Cardwell. All are Democrats.

Five of the State officers—Governor, Lieutenant-Governor, Secretary of the Commonwealth, State Treasurer, and Superintendent of Public Instruction—are elected by the people. They each serve four years. The election for these officers took place in November, 1901. The Auditor of Public Accounts is elected by the joint vote of the two houses of the General Assembly, to serve four years. The Legislature meets biennially, the second Wednesday in January following the election. There are 36 Senators and 86 members of the House.

**Finances.**—The following is a synopsis of the financial operations of the treasury for the financial year ending Sept. 30, 1902: Balance Oct. 1, 1901, $864,400.92; receipts in fiscal year 1901-02, $378,709,942; balance Oct. 1, 1902, $739,392.72. The disbursements were: Literary fund, $291,215.57; interest on public debt, $843,896.57; sinking fund, $1,077.78; Miller fund, $75,944.17; total amount in the treasury to the credit of the several funds, Oct. 1, 1902, $1,029,800.72. In addition to the above the United States direct tax fund has its credit $1,167,174.

**Population Statistics.**—The Census Bureau reports that in 1890 there were 165,630 Virginians living elsewhere than in the State at their birth. The Census Bureau has compiled table—one giving the number of black Virginians living in other States, the other the number of negroes from other States living in Virginia. The tables show that in 1900 the total number of negroes born in Virginia was 878,088; living in Virginia, born there, 625,544; born in Virginia, living in other States, 253,444. Total number of negroes living in Virginia in 1900 was 878,088; had emigrated from Virginia 253,444, and immigrated to Virginia 35,026. In the decade between 1890 and 1900 the negro population of Richmond decreased from 22,330 to 22,230.

**Resources and Products.**—The Crop Report, published by the authority of the Secretary of Agriculture, gives the following statistics of the produce, production, and value of the principal farm-crops of the State in 1902: Corn—areage, 1,879,348; production, 41,345,656 bushels; value, $21,490,741. Winter wheat—areage, 637,000; production, 3,635,494 bushels; value, $2,572,040. Oats—areage, 222,074; production, 3,886,295 bushels; value, $1,632,244. Barley—areage, 2,653; production, 48,856 bushels; value, $25,256. Ry—areage, 28,147; production, 251,511 bushels; value, $165,067. Buckwheat—areage, 20,862; production, 346,309 bushels; value, $207,785. Potatoes—areage, 50,831; production, 3,789,825 bushels; value, $2,198,068. Hay—areage, 472,913; production, 501,288 tons; value, $6,507,401. Tobacco—areage, 182,359; production, 136,769,250 pounds; value, $12,306,232. The definite amount and value of tobacco in 1902 was not reported, but it is estimated that in 1902 Virginia produced 248 pounds of lint cotton to the acre under cultivation. The average of the 14 producing States is 185.5 pounds per acre; and Virginia stands sixth in order of amount.
The Census Bureau issued a preliminary report on the manufacturing industries of Virginia. It shows for the State a total of 8,245 establishments in 1900, an increase of 4 per cent. in the decade. The total capital was $105,512,855, an increase of 63 per cent.; average number of wage-earners 72,527, increase 35 per cent.; total wages, $22,596,060, increase 41 per cent. The miscellaneous expenses were $12,258,244, an increase of 65 per cent.; cost of materials used, $74,762,740, an increase of 44 per cent.; value of all manufacturing products, including custom work and repairing, $132,735,620, increase 50 per cent.

Education.—The Department of Public Instruction announced the apportionment of the State school funds for 1901-02, as being at the rate of 28 cents and 4 mills per capita of the school population. The whole amount apportioned was $4,16,507. The amount per capita of school population was $1.167.

The State Board of Education declined to renew the contracts for two books on the public schools of Fiske, the history of the United States and Our Country, a history of the United States, written by Cooper, Estell, and Leman. This action is based upon the determined effort to keep the State treasurer and others from removing from the public schools of the State every history that is objectionable to Confederates, their contention being that Fiske's history and Our Country do not represent fairly the war of secession. A large number of the teachers in the public schools are favorable to Fiske's history and also to Our Country for pedagogic reasons. They declare that these two histories offer more abundant material for classroom purpose, and present the subject in better form for teachers and pupils.

An address delivered by Gov. Montague at Charlottesville, July 8, before the Virginia teachers and superintendents, contained the following statistical facts, based upon Superintendent Southall's biennial report: Of 6,538 county schools, 2,632 fall below the legal required average attendance of 20 pupils to the school. Out of 2,032 colored schools, only 498 fall below the required average. The Governor referred to the necessity of industrial training for the negroes. He said the wisest act of the State board would be to abolish the classical department at the Petersburg Colored Normal and create an industrial department in its place.

The following are among the provisions of the new Constitution relative to education: "No appropriation of public funds shall be made to any school or institution of learning not owned or exclusively controlled by the State or some political subdivision thereof; provided, first, that the General Assembly may, in its discretion, continue the appropriations to the College of William and Mary, and that counties, cities, towns, and districts may make appropriations to non-sectarian schools of manual, industrial, or technical training, for institutions of learning for the two fiscal years ending Sept. 30, 1902, and Sept. 30, 1903, were as follows: Medical College of Virginia, $3,000; State Female Normal School, $16,000 and $12,000 for new building; University of Virginia, $50,000 and additional for amount expended on hospital, to be refunded to State; Virginia Military Institute, $25,000; Virginia School for the Deaf and Dumb, $25,000 for new buildings; Polytechnic Institute, Blacksburg, $25,000 and an additional sum of $25,000 for new buildings; Virginia Normal and Collegiate Institute, $15,000, provided that it be converted into an industrial school; William and Mary College, $15,000 and $5,000 for electric-light plant; public schools, $200,000.

Penitentiary.—The report of the joint commission appointed to investigate the conditions existing at the Penitentiary contains the following statement: "Its condition (overcrowded) is almost incomprehensible to the human mind, and it would be difficult indeed to conceive of any penal institution being permitted to continue under such intolerable conditions. Visitors from all parts of the country—from Florida to Maine—have turned away from the contemplation of its sickening horrors in wonder and amazement that the State of Virginia would countenance the continuance of such dreadful conditions."

The report says the death rate, as ordinarily reported, does not convey an accurate idea of the hygienic condition of the prison, as many are annually pardoned because of broken health, and most of them die soon after being liberated. The commission is of the opinion that it is absolutely necessary that the prison be removed to a place near a large city to provide ample protection against fire and to have the military at hand in case of serious trouble. On the subject of convict labor, the report says the consensus of opinion seems to be that it is better to have the men at some contract work in the manufacture of articles of commerce than to have them brought into competition with local State labor.

The minority report goes very fully into a penological discussion. It does not excuse the overcrowded condition of the prison, but it insists that it has not been so productive of evils as the majority says.

The appropriations for criminal expenses for the fiscal years ending Sept. 30, 1902, and Sept. 30, 1903, as reported from the House Committee on Finance, are: Transportation of prisoners to and from the Penitentiary, $6,000; expenses of juries, witnesses, and prison associations, $240,000.

Legal Decision.—The Supreme Court affirmed the judgment of the Circuit Court holding the railroad company responsible for a railroad company's accident to a passenger traveling on a free pass, arguing that the company agreeing to carry the passenger came under the duty of transport him safely, and the agreement by which it undertook to relieve itself from the consequences of the negligence of its servants was void as against the policy of the State, which is to enforce with equal hand the performance of those duties upon which the safety of her citizen depends.

An interesting case in which an opinion was delivered is that involving riparian rights and the accretion of property as a result of changes in a river boundary. A lot in Lynchburg that was condemned for canal purposes in 1836 originally embraced about 2 acres. The changes in the channel of the river enlarged this to about 4 acres, when in 1896 the complainant sought to acquire title to the extra 2 acres, contending that the condemnation did not extend to the 4 acres. The defendant instituted chancery proceedings, setting up a title to the accretions and increment of land as well as to the tract originally conveyed. The Court of Appeals held that by purchase the defendant is a fee-simple riparian pro.
priest, empowered to take, _jure duciuricunm_; and that the water-line of James river, however much it may shift, is the boundary of the property purchased.

Lawlessness.—Lynchings of negroes occurred at Leesburg and at New Glasgow, Amherst County, the victims being accused of the murder of white men. Satisfactory evidence was not forthcoming of the guilt of the man who was executed at Leesburg.

Political.—The convention called to frame a new Constitution for Virginia completed its work, and on May 29 proclaimed it by a vote of 48 to 38, after it had voted down by decisive majorities propositions to submit the work of the convention to the present or full electorate and to the new or restricted electorate. Accordingly, Gov. Montague issued his proclamation on June 29 to the people of Virginia to recognize and support the new instrument, and also called the Legislature in extra session on July 15 to put the Constitution into effect. The following are the most important sections:

In controversies respecting property, and in suits where the value in controversy is under $20, all actions of debt, slander, trover, and detinue, and all cases where the value in controversy is under $20, shall be tried by a jury a trier; but the General Assembly may limit the number of jurors for civil juries in circuit and corporation courts to not less than 5 in cases now cognizable by judicial commissioners, or to not less than 7 in cases not so cognizable.

Every male citizen of the United States, twenty-one years of age, who has been a resident of the State for two years, of the county, city, or town, one year, and of the precinct in which he offers to vote, thirty days, next preceding the election in which he offers to vote, has been registered, and has paid his State poll-tax, as hereinafter required, shall be entitled to vote for members of the General Assembly and all offices elective by the people; but removal from one precinct to another in the same county, city, or town shall not deprive any person of his right to vote in the precinct from which he has moved, until the expiration of thirty days after such removal.

There shall be general registrations in the counties, cities, and towns of the State during the years 1902 and 1903 at such time and in such manner as may be prescribed by an ordinance of the General Assembly. Any registration of any male citizen of the United States having the qualifications of age and residence required in section 18 shall be entitled to register, if he be:

1. A citizen of the United States, at the time of the adoption of the Constitution, served in time of war in the army or navy of the United States, or of the Confederate States, or of any State of the United States, or of the Confederate States; or,

2. A son of any such person; or,

3. A person who has paid to the State for the year next preceding that in which he offers to vote, not less than one dollar on property owned by and assessed against him; or

4. A person able to read any section of this Constitution submitted to him by the officers of registration and to give a reasonable explanation of the same; or, if unable to read such section, able to understand and give a reasonable explanation thereof when read to him by the officers.

After the 1st day of January, 1904, every male citizen of the United States having the qualifications of age and residence shall be entitled to register, provided:

1. That he has personally paid to the proper officer all State poll-taxes assessed or assessable against him under this or the former Constitution for the three years next preceding that in which he offers to register, or, if he come of age at such time that no poll-tax shall have been assessable against him for the year in which he offers to register, has paid $1.50 in satisfaction of the first year's poll-tax assessable against him; and

2. That, unless physically unable, he make application to register in his own handwriting, without aid, suggestion, or memorandum, in the presence of the registration officers, stating therein his name, age, date, and place of birth, residence and occupation at the time and for the two years next preceding, and whether he has previously voted, and, if so, the State, county, and precinct in which he voted last.

Any person registered under either of the last two sections shall have the right to vote for members of the General Assembly and all officers elective by the people, subject to the following conditions:

That he, unless exempted by section 22, shall, as a prerequisite to the right to vote after the 1st day of January, 1904, personally pay, at least six months prior to the election, all State poll-taxes assessed or assessable against him, includable in any judgment against him; and the next preceding that in which he offers to vote, provided that, if he register after the 1st day of January, 1904, he shall, unless physically unable, prepare and deposit his ballot without aid, on such printed form as the law may prescribe: but any voter registered prior to that date may be aided in the preparation of his ballot by such officer of electivity as he himself may designate.

No person who, during the late war between the States, served in the army or navy of the United States, or of the Confederate States, or any State of the United States, or of the Confederate States, shall at any time be required to pay a poll-tax as a prerequisite to the right to register or vote; nor shall the collection of the State poll-tax assessed against any one be enforced by legal process until the same has become three years past due.

Sec. 23 enumerates the persons disqualified for voting, such as obtain in most States with the addition of persons who, while citizens of the State, after the adoption of this Constitution, have fought a duel with a deadly weapon, or shot or accepted a challenge to such a duel, either within or without this State, or knowingly conveyed a challenge, or aided or assisted in any way in the fighting of such duel.

All elections shall be by ballot; all elections by any representative body shall be by voice, and the vote recorded in the journal thereof.

The General Assembly may prescribe a property qualification not exceeding $250 as a prerequisite for voting for other than members of the General Assembly.

Every person qualified to vote shall be eligible to hold any office of the State, or of any county, city, town, or other subdivision of the State, except as otherwise provided in this Constitution. Men and women eighteen years of age shall be eligible to hold the office of notary public.

The legislative power of the State shall be vested in a General Assembly.

The Senate shall consist of not more than 30 and not less than 33 members, elected quadrennially on the Tuesday succeeding the first Monday in November.

The House of Delegates shall consist of not more than 100 and not less than 90 members, elected biennially.

The members of the General Assembly shall receive for their services a salary to be fixed by
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law; but no act increasing such salary shall take effect until after the end of the term for which the members voting thereon were elected.

The General Assembly shall meet once in two years on the second Wednesday in January next succeeding the election of the members of the House of Delegates, to continue sixty days; but with the concurrence of three-fifths of the members elected to each house, the session may be extended for a further period not exceeding thirty days.

The Governor shall hold office for a term of four years, to commence on the 1st day of February next succeeding his election, and be ineligible to the same office for the term next succeeding that for which he was elected.

The Supreme Court of Appeals shall consist of 5 judges, any 3 of whom may hold a court. It shall have original jurisdiction in cases of habeas corpus, mandamus, and prohibition; but in all other cases in which it shall have jurisdiction it shall have appellate jurisdiction only.

The assent of at least 3 of the judges shall be required for the court to determine that any law is, or is not, repugnant to the Constitution of or of the United States, and if, in any case involving the constitutionality of any such law, not more than two of the judges sitting agree in opinion on the constitutional question involved, the case shall be remanded, without passing on such question, no decision shall be rendered therein, but the case shall be reheard by a full court.

The judges of the Supreme Court of Appeals shall be chosen by the joint vote of the two houses of the General Assembly. They shall, when chosen, have held a judicial station in the United States, or shall have practised law in this or some other State for five years. They shall be elected for terms of twelve years.

The General Assembly shall set apart as a permanent and perpetual literary fund the present literary fund of the State; the proceeds of all public lands donated by Congress for public free-school purposes; of all escheated property; of all waste and unappropriated lands; of all property accruing to the State by forfeiture and all fines collected for offenses committed against the State and such other sums as the General Assembly may appropriate.

The State tax for schools may not be less than 1 mill on the dollar, nor more than 5 mills.

Each separate school district may raise additional sums by a tax on property not to exceed in the aggregate 5 mills on the dollar in any one year for establishing and maintaining schools, with the provision that primary schools be maintained at least four months in the year before schools of a higher grade receive appropriation.

The General Assembly may provide for the compulsory education of children between the ages of eight and twelve years.

White and colored children shall not be taught in the same school.

A board of directors, consisting of 5 members, is charged with the management and control of the State Penitentiary and prison farms. A special board of directors, consisting of 3 members, is provided for each of the 4 State hospitals, and these special boards are constituted a general board for the control of all the hospitals for the insane in the State.

A permanent commission to consist of 3 members, to be known as the State Corporation Commission, is appointed by the Governor, subject to confirmation by the General Assembly, to hold office for six years. One of the commissioners must have the same qualifications that are prescribed for judges of the Supreme Court of Appeals. The commission becomes a department of the government through which shall be issued all charters and amendments or extensions thereof for domestic corporations, and all licenses to do business in this State to foreign corporations, and through it will be carried out all the provisions of the Constitution, and of the laws made in pursuance thereof, for the creation, organization, supervision, regulation, and control of corporations chartered by and doing business in the State. It shall from time to time prescribe and enforce against all transportation and transmission companies such rate charges, classifications of traffic, and rules and regulations, and shall require them to establish and maintain all such public service facilities, and conveniences as may be reasonable and just. It has the power and authority of a court of record, to administer oaths, to compel the attendance of witnesses, and the production of papers, to punish for contempt, and to enforce compliance with any of its lawful orders or requirements. Appeals from its rulings may be taken in the manner in which appeals are taken to the Supreme Court of Appeals from the inferior courts.

Free passes are forbidden except to members and officers of the State Corporation Commission for their personal use.

The General Assembly shall enact laws preventing all trusts, combinations, and monopolies injurious to the public welfare.

The General Assembly may levy a tax on incomes in excess of $600 a year; may levy a license tax upon any business that cannot be reached by the ad valorem system; and may impose franchise taxes.

The General Assembly shall levy a capitation tax of, and not exceeding, $1.50 a year on every male resident of the State not less than twenty-one years of age, except those pensioned by this State for military services.

Railroad and canal property must be assessed for taxation, like any other property; and the companies shall also pay a franchise tax of 1 per cent. on gross receipts.

Amendments to the Constitution may be proposed in the General Assembly, and if they shall be agreed to by a majority of the members elected to each house, then the General Assembly must submit them to the people, and if the people shall ratify them by a majority of the electors qualified to vote for members of the General Assembly voting thereon, such amendments shall become part of the Constitution.

WASHINGTON, a Pacific coast State, admitted to the Union Nov. 11, 1889; area, 68,180 square miles. The population, according to each decennial census since admission, was 349,390 in 1890 and 518,103 in 1900. Capital, Olympia.

Government.—The following were the State officers in 1902: Governor, Henry G. McBride, in place of John R. Rogers, deceased (see Annual Cyclopaedia for 1901, page 494); Secretary of State, S. H. Nichols; Treasurer, C. H. Maynard; Auditor, J. D. Atkinson; Attorney General, W. R. Stratton; Land Commissioner, S. A. Calvert; Superintendent of Public Instruction, R. B. Bryan; Adjutant-General, E. H. Fox—all Republic
ans except Rogers and Fox, who are Democrats; Chief Justice of the Supreme Court, James R. Reavis; Associate Justices, R. O. Dunbar, Mark A. Fullerton, T. J. Anders, Wallace Mount, W. B. White, H. E. Hadley; Clerk, C. S. Reinhardt—all Republicans except Reavis and White, who are Democrats.

State officers are chosen for terms of four years, at the time of the presidential elections. The Legislature meets biennially in January of odd-numbered years. It was composed of 34 Senators and 80 Representatives, until at the regular session of 1801 the number of Senators was increased to 42 and the number of Representatives to 93.

Valuation.—The taxable wealth of the State for 1902, as equalized by the State board, is as follows: Land, including town and city lots, exclusive of improvements, $151,460,883; improvements on land, town and city lots, $46,740,031; land, town and city lots, including improvements, $198,200,914; personal property, $45,884,131; railroad-tracks, $16,851,073; total valuation of real and personal property, including railroad-tracks, $290,940,188. The board, at the close of its meeting of 1901, fixed the general fund levy as fixed at 24 mills of the valuation fixed by the State Board. The military-fund, interest-fund, and school-fund levies are fixed by law at one-fifth of the total millage for general, state and military purposes, and 5 mills for school fund.

The total amount that will be raised for State purposes this year is $1,982,718, in addition to the amounts divided from General fund, school fund, and school funds from the tide-lands sales and rentals, and from 10 per cent. of liquor licenses. The amount expected to be raised for each fund is: General fund, $574,067; school fund, $1,304,701; interest fund, $52,189; military fund, $32,189.

Finance.—The quarterly report of the State Treasurer shows a cash balance in his hands at the close of business, Dec. 31, 1902, of $988,742,177. Some of the principal funds into which this amount was divided were: General fund, $92,125; military fund, $308,105,486; school fund, $344,304,629; current school fund, $108,857,622; revolving fund, Penitentiary, $154,044,815; State Library, $20,444,605; Scientific School, $26,033,77; State Capitol Commission, $87,247,86.

The annual report of the Treasurer, issued in October, shows that the indebtedness of the State of Washington has been reduced $131,496.34 in the past two years. The following is the statement of indebtedness at the close of the last biennial period, Sept. 30, 1902: General fund warrants outstanding, $45,741,18; interest on same, estimated, $192,05; State bonds held by permanent school fund, $1,105,000; accrued interest on same, $78,092,68; State funding bonds outstanding, $80,000; accrued interest on same, $873,04; total, $1,349,631,56; less cash on hand in general fund, $7,161,62; actual indebtedness, $1,344,460,94; indebtedness reduced, $131,496.34.

The report shows that the greatest part of the indebtedness, which in 1900 was in general-fund warrants drawing 5 per cent. interest, which interest was paid to individuals and warrant buyers, has been transferred to State bonds, which draw but 3 per cent. interest, and the interest goes to the permanent school fund. More than half of the State funding bonds, which were held by Eastern investment companies and drawing 5 per cent. interest, have been refunded. The Commissioner of Public Lands, S. A. Calvert, issued a comparative statement of the volume of business transacted by his department, which discloses that during the past two years the receipts from the principal money-producing department of the State Government exceeded the receipts during the preceding two years by more than one-third, the increase amounting to $350,000 in round numbers. The receipts for the two years ending Sept. 30, 1902, were $1,204,005,38.

Products and Resources.—The Crop Reporter, published by authority of the Secretary of Agriculture of the United States, gives the following statistics of Washington in acreage, production, and value of the principal farm crops in 1902: Corn, acreage, 10,014, production 230,522 bushels, total value $148,709; winter wheat, acreage 30,315, production 7,923,096 bushels, total value $5,150,402; spring wheat, acreage 757,139, production 15,748,491 bushels, total value $20,256,51; oats, acreage 154,066, production 7,115,677 bushels, total value $3,480,388; barley, acreage 146,075, production 6,121,278 bushels, total value $2,815,788; rye, acreage 2,916, production 51,755 bushels, total value $23,151; potatoes, acreage 31,228, production 4,255,168 bushels, total value $1,616,904; hay, acreage 322,864, production 730,339 tons, total value $6,002,676.

On Nov. 29, 1902, Inspector J. W. Arrasmith presented his biennial report. It showed that in the period between Sept. 1, 1900, and Aug. 31, 1902, the number of cars of wheat inspected at the 3 points of inspection in the States of Oregon, Washington, Seattle, and Spokane—was 37,541, or approximately 35,205,540 bushels; oats, 2,265 cars or 3,125,700 bushels; barley, 1,432 cars or 1,340,292 bushels; total amount of grain, 41,200 cars or 38,763,620 bushels.

A revised bulletin of the Census Office giving statistics of manufactures shows that in 1902 there were in Washington 1,814 manufacturing establishments, with an invested capital of $25,178,732 and a total value of manufactured product for the census year of $40,654,726.

The Director of the United States Mint estimated the State's production of gold in 1902 as amounting to $343,100, and of silver $360,400.

Mining in Washington is slowly recovering from the depressing effect of the temporary diversion of capital to Alaska. In the year ending Aug. 25 the Seattle Assay Office received the following quantities of gold and silver from neighboring fields: Alaska, $3,475,759; Idaho, $8,404,904; Washington, $88,684; British Columbia, $827,678; Yukon Territory, $11,097,118. The hop-crop for 1902 was estimated at 30,000 bales.

The value of the output of the fisheries industry for 1902 is estimated by Fish-Commissioner T. R. Kershaw in his annual report at $6,730,059, including salmon packed, fresh, salt, and smoked, fish, shell-fish, and all fish products. The number of cases of salmon packed in the year is given at 777,494. The commissioner reports that as a total this is under the output of last year.

The report shows that there is invested in the industry in the State of Washington the sum of $6,910,818, an increase of $2,457,348 in the past two years. There are 7,015 whites and 2,055 by- new and Japanese employed in the industry, and their annual earnings are $2,502,550.

Possibly one of the most important subjects touched upon in the entire report is the declaration of Mr. Doane, that the several years' experiments and observations have developed the fact that Eastern oysters will not propagate in Washington waters under natural conditions. The Eastern oyster will spawn profusely, but the spat will not set or thrive. The greatest difficulty to overcome is the low temperature of the waters of the Sound. The average temperature of the water is about 10° lower.
The State of Washington failed to secure a recognition of its claims in the contest over the estate of John Sullivan in the Superior Court of King County being denied by the Supreme Court. The estate, valued at $500,000, was contends for by a large number of alleged heirs.

The contention of the State of Washington was that Sullivan, who died intestate, left no heirs to his property, and that it therefore had escheated to the State. The Supreme Court held that the proper remedy is by appeal from the order of the court denying the State’s petition.

In August, prior to the State elections, the Supreme Court handed down two decisions involving the same questions, and for that reason consolidated at the argument. They were applications for a writ of mandamus to the Governor, requiring him to issue his proclamation for the election of a Governor, a Lieutenant-Governor, and 3 Justices of the Supreme Court at the general election in November. It appears from the petition that John R. Rogers and Henry McBride were, at the general election held in November, 1900, elected to the offices of Governor and Lieutenant-Governor, respectively. That petition was filed on Dec. 26, 1901, by State Penitentiary, aver that an election for Governor and respondent Henry McBride therewith took the oath of office and became acting Governor. The relator in the suit maintained that there was a vacancy in the office of Governor and also of Lieutenant-Governor. Furthermore, the Legislature of 1901 having passed an act increasing the number of judges of the Supreme Court from 5 to 7, appointments were to fill the vacancies created by the act. The relator further maintained that the terms of office of the 2 judges so appointed would expire on the second Monday of October, 1902, and complained that the Governor refused to issue his proclamation for the election of a Governor, Lieutenant-Governor, and 2 Supreme Court Justices, at the general election, held in November.

The mandamus proceedings, approved by the Governor, were instituted to test the validity of the legislative act, and the questions concerning the governorship and Lieut. Governorship were included in order to secure an opinion concerning them. The first question presented was: Does the death of the Governor cause a vacancy in that office which may be filled for the unexpired term, and, if not, does the office of Lieutenant-Governor become vacant when the incumbent assumes the duties of Governor?

The court argued that “it is not shown how an office can be vacant and yet there be a person, not the deputy, or locum tenens, of another, empowered by law to discharge the duties of the office, and who does in fact discharge them. It is not explained how, in such a case, the duties can be separated from the office, so that he who discharges them does not become incumbent of the office. And, in the second place, how a person can fill the office of Governor without being Governor.” Its decision was: “The Constitution having provided that in case of the death of the Governor the duties of the office shall devolve upon the Lieutenant-Governor, there is no vacancy in the office of Governor. When the Lieutenant-Governor, by virtue of his office and of the command of the Constitution, assumes the duties of Governor on the death of Gov. Rogers, the office of Lieutenant-Governor did not thereby become vacant, but the officer remained Lieutenant-Governor entrusted with the powers and duties of Governor.”

As to the incumbency of the Lieutenant-Governor...
or, the court continued: "It is argued, however, that since it is made the duty of the Lieutenant-Governor under the Constitution to be presiding officer of the State Senate, and as such to approve all bills passed by that body, he must as Governor review and approve or reject bills which as Lieutenant-Governor he has already approved. These duties are no doubt inconsistent, but this argument we think is fully met by another provision of the Constitution which provides in substance that when the Lieutenant-Governor shall not act as Governor the Senate shall choose a temporary president. The Lieutenant-Governor, therefore, when the duties of Governor devolve upon him, is relieved of the duties of presiding officer of the Senate."

The Legislature of 1901 passed an act increasing temporarily the number of judges of the Supreme Court from 5 to 7, and authorizing the Governor to appoint 2 judges whose terms of office should end on the first Tuesday after the first Monday in October, 1902. The grounds upon which the mandamus proceedings were based were twofold: 1. That when the increase was once made, no decrease could be made; and 2, that the temporary increase made was in conflict with the constitutional term. The court's decision was as follows: "The act of 1893 does not attempt to change or modify the terms of judges elected. It undertakes to create a vacancy and to terminate the vacancy at a fixed time before an election can take place and before an elective term may begin, and this we hold may be done because there is no fixed constitutional appontive term."

Forest Fires.—In Washington 454,000 acres were burned by brush fires in June. It is estimated that 5,026,800,000 feet of Douglas spruce was killed, representing a value of $5,026,800. Other timber to the value of $725,000 was destroyed. The total loss in Clowitz, Clark, and Skamania Counties, where fires were most disastrous, was $6,600,800, and in the other burned areas $2,550,500.

Soldiers' Monument.—The Legislature of 1901 appropriated $2,500 for the erection of a monument to commemorate the valor of the dead of the First Washington Regiment, United States Volunteers, of which 11 resting in the State plot in the Masonic Cemetery, in Olympia. The monument was placed in position in March. The pedestal is of native granite, 16 feet high, surmounted by a bronze figure of a United States volunteer in the service uniform worn in the Philippines, making the whole structure nearly 23 feet high. The bronze figure was modeled after a photograph of one of the members of the First Washington Regiment. The inscription is as follows: "The State of Washington erects this Monument in Memory of her Valiant Sons."

Political.—At the elections, Nov. 4, Hiram E. Hadley was chosen Associate Justice of the Supreme Court, and Francis W. Cushman, Wesley L. Jones, and Will E. Humphrey, members of Congress, all of whom are Republicans. Both branches of the Legislature chosen are Republican by large majorities.

The new Capitol annex was delayed in construction on account of the failure to receive steel trusses for the domes. Up to August the building had cost $335,892.18, and the expenses of the commission had been $2,283.33. This amount embraces all contracts already made; something in addition will be demanded for fixtures.

WEST VIRGINIA, a Southern State, admitted to the Union June 19, 1863; area, 24,770 square miles. The population, according to each decennial census since admission, was 446,014 in 1870; 618,457 in 1880; 762,794 in 1890; and 958,800 in 1900. Capital, Charleston.

Government.—The following were the State officers in 1901: Governor, A. B. White; Secretary of State, W. M. O. Dawson; Treasurer, Peter Silman; Auditor, Arnold C. Scherr; Attorney-General, Romeo H. Freer; Superintendent of Schools, Thomas E. Miller; Adjutant-General, S. B. Baker; Librarian, S. W. Stark; Bank Examiner, C. B. Kefauver; Secretary of the Board of Agriculture, J. O. Thompson; Labor Commissioner, F. V. Barton; Mine Inspector, J. W. Paul; Game and Fish Warden, E. F. Smith; Presiding Judge of the Supreme Court of Appeals, M. H. Dent; Associate Judges, Henry Brannon, H. C. McWhorter, George Poffenbarger. All the State officers are Republicans except Judge Dent.

State officers are elected for terms of four years at the time of the presidential elections, and are inaugurated on the 4th of the March. The Legislature meets biennially in January of the odd-numbered years.

Finance.—The receipts in the Treasurer's office for the fiscal year ending Sept. 30, 1902, were: State fund, $1,804,738.25; general school fund, $458,903.16; school fund, $85,346.48; total, $2,348,967.90. The disbursements were: State fund, $1,670,246.54; school fund, $182,129.10; total, $2,292,375.64. In addition to this there was to the credit of the State, Sept. 30, 1902, stocks, bonds, other investments of the school fund, and money paid out for criminal charges for the year was $180,438.45.

The chief sources of income for the year ending Sept. 30, 1902, were: licenses, $24,321; corporation licenses on charter, $399,845; railroad taxes, $101,321.45; interest on deposits and stocks and bonds, $72,575; sundries, fines, etc., $29,334.24; capitations, $163,415.75; land, $298,875.25; buildings on land, $45,254.30; lots, $42,109.50; buildings on lots, $89,340.54; intangible personal property, $140,205.15; tangible personal property, $75,890.30.

Militia.—The Adjutant's report for 1902 gives an enrolment of 1,545 men in the State militia with 15,000 available.

Education.—There were employed 844 teachers in the public schools, which numbered 6,478. The enrolment was 276,234; the total cost of the schools was $2,900,500; the enrolment of the State University preparatory schools at Montgomery and Keyser was 1,075, the university enrolment being 982. There are 6 normal schools, chief among which is the Carshall Normal School at Huntington, which had an enrolment of 630 students alone in 1902, that being the largest number that ever attended this institution.

Public Institutions.—The State in 1902 maintained the following institutions: Asylum for Incurables at Huntington; insane asylums at Weston and Spencer; Deaf, Dumb, and Blind Asylum at Romney, Boys' Reform School at Pruntytown; Miners' Hospitals at Welch, McKeendree, and Fairmont; colored institutions at Bluefields and Kanawha; Home for Girls at Salem; Storer College at Wheeling.

The Asylum for Incurables had 3 fine new build ings added in the year, as well as large pumphouses, electric-light plants, laundries, etc., which together cost made; something in addition will be demanded for fixtures.

In 1902, 250 United States prisoners were received at Moundville, and 320 State prisoners were received at the Moundville Prison, the expenses of the institution were much less than the profits from its various workshops. The
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State is one of the few in the Union whose prison is more than self-supporting.

The West Virginia Historical and Antiquarian Society reports for the year 1902 more than 1,100 volumes, 160 pamphlets, and many valuable manuscript maps and charts, and a large collection of valuable autographs. The museum contains nearly 20,000 relics and curios and a fine exhibit of the timber, coal, marble, granite, building-stones, fire and brick clay, and other products of the State, with specimens of its manufactures.

Resources and Products.—West Virginia stands second in the production of coal in 1902; 25,000,-
000 tons of coal were mined, 415 mines being in operation in 54 counties. More than 400 electric
machines were used in various mines during the year, which greatly reduced the number of miners. Almost one-eighth more coal would have been produced this year had it not been for the great strike of the United Mine-Workers, which extended over a period of nearly four months, during which time almost every mine in the New River field, the greatest coal-producing territory in the State, was idle, and almost half of those in the flat Top and Norfolk and Western fields were at a standstill. An average of a miner in West Virginia is about $45 a month.

The United States Steel Corporation is just completing one of the largest operations almost in the world. The production of coke in 1902 was the greatest coke-producing plant in the world, outside of Pennsylvania. In the production of coke, West Virginia is nearing the first rank. In 1902 nearly 3,750,000 tons of coke were produced, valued at more than $4,000,000, the oven being in operation two hundred and eight days. The State stands first in the production of petroleum, 22,600,000 barrels being produced in 1902. The development of oil is driving to the southern section of the State, and the Parkersburg field promises to rival that of the Sistersville territory. Great oil wells were discovered through the year in the southern tier of counties bordering on the Ohio and Big Sandy rivers, and some fine gas-producers have also come in during the year in the southern section of the State.

The greatest source of wealth of the State is its timber, there being fully 15,000 square miles of fine timber lands. The largest mills in the world for hardwoods are in Pocahontas, Randolph, and McDowell Counties in this State. The output of lumber for the year was 180,000,000 feet; of spruce, 75,000,000; of oak, 50,000,000.

The fruit-growing is attracting much attention, some of the largest orchards in the central west being in Randolph and Mineral Counties, especially in the former.

Railroads.—The State has more than 3,500 miles of railway in operation, and surveys were completed in 1902 which will add fully another thousand miles. The chief lines to run surveys through the State in 1902 were the Wahsah and Northern line, which will have a line extending entirely across the State, while the latter is building a branch 120 miles along the Tug and Big Sandy rivers.

In 1902 the State elected 5 Congressmen, a new congressional district having been added by the last apportionment. The Congressmen elected were all Republicans.

WILLIAM McCALL, a Western State, admitted to the Union, May 29, 1848; area, 56,040 square miles. The population, according to each decennial census since admission, was 305,201 in 1850; 775,981 in 1860; 1,064,670 in 1870; 1,668,880 in 1880; and 2,069,042 in 1900. Capital, Madison.

Governor.—The following were the State officers in 1902: Governor, Robert M. La Follette; Lieutenant-Governor, Jesse Stone, died May 16, 1902; Secretary of State, William H. Froehlich; Treasurer, James O. Davidson; Attorney-General, Emmett R. Hicks; Superintendent of Education, Lorenzo D. Harvey; Railroad Commissioner, Graham L. Rice; Insurance Commissioner, Emil Giljohann; Adjutant-General, C. R. Boardman; Dairy and Food Commissioner, H. C. Adams; Labor Commissioner, Halford Erickson; Bank Examiner, E. H. Kidd; Health Commissioner, F. M. Schultz; Fish and Game Warden, J. T. Ellarson; Tax Commissioners, Norman S. Gilson, George Curtis, W. J. Anderson; Forest Warden, C. E. Morley; Chief Justice of the Supreme Court, J. B. Cassoday; Associate Justices, John B. Winslow and Joshua E. Dodge (Democrat), Charles V. Bardeen, and Roujet D. Marshall; Clerk, Clarence Kellogg. The exceptions mentioned, all are Republicans.

State officers are elected for terms of two years in November of the even-numbered years. The Legislature meets biennially in January of the odd-numbered years. It consists of 33 Senators and 100 Representatives.

Finances.—The balance in the general fund at the close of the year was $238,884.54. In the last two years no transfer from the trust funds to the general fund was made; the meeting temporary deficits. The treasury was able to keep the trust funds fully and profitably invested. In order to maintain this condition, it was found necessary by the executive to delay the expenditure of some extraordinary appropriations in 1901, when legislative expenses were met, and until revenues were received for 1902.

The State Tax Commission issued its report, Oct. 24, on the assessed valuation for the year 1902. The total value of personal property for the State was $277,969,027; and the value of all property $1,504,546,009.

Banking.—The State Bank Examiner's statement of the condition of the banks at the close of business on Sept. 15 included both State and private banks. The loans and discounts were $55,133,591.63; unpaid capital, $974,234.74; overdrafts, $740,252.55; banking house, $1,257,524.88; real estate, $833,656.62; furniture, $388,881.10; securities, $6,597,911.49; cash, $15,247,382; checks, $498,496.12; due from banks, $130,950,767; insurance, $2,040,305.74; specie, $1,672,830.70; nickels and cents, $2,688,45; revenue stamps, $239,738.87; total, $84,615,453.17. Liabilities—Capital stock, $8,684,48,90; surplus, $1,544,806.

Banking.—Undivided profits, 1,441,693.01; deposits, $42,536,504.13; certificates, $2,030,888.36; saving deposits, $13,837,912.58; due banks and bankers, $1,885,265.76; dividends unpaid, $3,866,945; certificates, 4,549,700; cashiers' checks outstanding, $121,141.93; bills rediscounted, $571,064.98; bills payable, $187,046.73; total, $84,615,453.17.

Education.—The report of the Board of Regents of Normal Schools, issued in December, gave the following as the sources from which the income for the support of the normal schools of the State is derived: A fixed amount and appropria-

special appropriations; interest on capital funds; tuition: book rents, sales of all kinds, which is placed by law under the entire control of the board.

In the biennial period from July 4, 1900, to July 1, 1902, inclusive, there was distributed a
Of the 160,795 farms in Wisconsin, 146,799, or 88.5 per cent., are operated by their owners; 10,249, or 6 per cent., by tenants who pay rent in cash; and 12,747, or 7.5 per cent., by tenants who work on shares.

Charities and Corrections.—The State Board of Control gives a statement of the average population and the per capita cost per week, in part of the several charitable, penal, and reformatory institutions under the supervision of the board, from Oct. 1, 1901, to June 30, 1902. The inmates in the State Hospital for the Insane numbered 413; the per capita cost per week was $3.40; in the Northern Hospital for the Insane, 599, the per capita cost was $4.31; in the School for Defectives, 202, the per capita cost was $4.09; in the School for Blind, 111, the per capita cost was $6.03; in the Industrial School for Boys, 399, the per capita cost was $4.38; in the State Prison, 562, the per capita cost was $3.28; in the State School for Feeble-Minded, 484, the per capita cost was $3.39; in the State Reformatory, 149, the per capita cost was $5.18. The increase in the number of insane in the State is not accurately shown here because of the system of transferring the care of this class to county asylums. The number of patients in county asylums is 3,884 and the number cared for in the Milwaukee Hospital for Insane is 527.

Fish and Game.—The report of the State Fish and Game Warden shows the operations of that department during the fiscal year 1899-1902. Instead of being a tax upon the treasury, the department has become a source of revenue to the school funds of the State, approximating $5,000 a year. At the same time the department has furnished a more adequate protection to fish and game than has been heretofore known. This protection has been afforded solely through collection of license fees from those who are benefited by the service. In the last two years the State Warden has bettered the protection to fish and game by increasing his force during those seasons when the laws are most subject to violation and by reducing the number of depredations. The department has more than doubled its force. One result of the increased force is that fishery laws, which have been so long neglected, are more rigidly enforced.

Legal Decisions.—On Jan. 31 the Supreme Court of the State entered an order permitting the Attorney-General to file an information and begin an action to restrain the receiver of the Bayfield and Iron River Railway from tearing up the track and dismantling the road. This is one of the most important decisions rendered by the court in recent years. An action was begun by the federal court to foreclose the mortgage upon said road. The usual judgment of foreclosure and sale was entered. The special master appointed to make the sale was not able to sell the road for the price designated by the court. The judgment apparently threatened a conflict between the Wisconsin courts and federal authority. But a decision was handed down, April 4, by the United States Supreme Court, at Madison, asserting that jurisdiction in the matter rested with the federal court, which the court of appeals for the past season was marketable. The acreage and yield were about the same as in the previous year, but the quality was inferior. This per cent. of the corn reported could be classed as 'merchantable.'
sight of the court to enact those laws pledged to the public by the demands of the Republican party through the platform in its last convention" condemned "the pernicious activity of federal officials in this State, in flagrant disregard of civil-service laws, in attempts to forestall and control the convention action of the party to which they owe their preferment, and in assisting professional lobbyists before the Legislature and elsewhere in the work of defeating legislation in repudiation of party pledges." Its approved the work of the Tax Commission.

The Democratic State Convention met in Milwaukee, Sept. 3, and nominated: For Governor, David S. Rose; Lieutenant-Governor, John Wat- tawa; Superintendent of Public Instruction, Karl A. Mathie. Regarding trusts, the platform said: "We believe that the State should not grant of its sovereign power to corporations to be exercised in the unlawful oppression of the people, and we hereby pledge ourselves to cause to be instituted and prosecuted with vigor such proceedings in the courts, as may violate the law by which they have had no capital stock of the bank, except real estate, and were not liable to taxation again upon this property. It was contended on the part of the bank that it makes capital stock of a bank personal property, and that under the statute it must be assessed as such in the municipalities where the bank is located. Judge Smith sustained the contention of the attorneys for the village.

Oneida Indians at Green Bay.—The Secretary of the Interior, Oct. 16, reversed his ruling, made a year previously, in connection with the claim of the Wisconsin Oneida Indians to participate in the judgment rendered in favor of the New York Indians against the United States Government by the Supreme Court. By this ruling the Indians living at Green Bay will receive about $300,000.

Political.—The platform of the Prohibitionists in convention in Milwaukee, June 19, declared that "annihilation and complete overthrow of the legalized saloon system, and the absolute prohibition of manufacture, sale, importation, exportation, and transportation of intoxicating liquors is one paramount political issue before the American people."

The Socialist platform reaffirmed the allegiance of the party to the principles of international socialism, and its adherence to the national platform adopted at Indianapolis, and pledged itself to such changes as the nationalization of all trusts, national ownership of railroads, telegraphs, telephone, express and steamship lines, and granting every wage-earner over sixty years of age who has earned less than $1,000 a year a pension of not less than $12 a month.

The Republican State Convention met in Madison, July 18, and nominated: For Governor, Robert M. Lafollette; Lieutenant-Governor, James O. Davidson; Secretary of State, Walter L. Housey; State Treasurer, John J. Kempf; At- torney-General, L. M. Sturdevant; Superintendent of Public Instruction, Charles P. Cary; Insurance Commissioner, M. W. Host; Railway Commissioner, John W. Thomas; Register of Deeds, George W. Stover; Surveyor, W. L. Marcy. The platform adopted the last Republican platform as such; approved the administration of Gov. La Follette; regretted the "failure of the last Legisla-
an increase in deposits over 1901 of $2,157,764.27; giving Wyoming a per capita deposit of approximately $88.

Valuation and Taxation.—The Treasurer's report for the fiscal year for 1901 shows that the value of real and personal property in the State in 1902 was $43,548,356; number of cattle 487,489, valuation $3,157,072; number of sheep 3,298,318, valuation $3,777,606.05. The taxes levied in 1902 were as follows: State, $243,001.08; county, $350,287.60; general school, $61,049.33; interest on county bonds, $429,279.72; library tax, $3,742.92; judgment and State deficiency, $7,673.25; special school, $178,787.58; payment of school-bond interest, $17,484.15; payment of county bonds, $51,278.72. Total, $974,576.70.

State Lands.—The rentals for State lands increased from $86,018 in 1901 to $92,357.09 in 1902. The receipts from sale of State lands given by Congress decreased from $22,095 in 1901 to $5,549 in 1902. The State owns 3,001,903.48 acres of school sections. Of this amount 1,297,001.36 acres have been leased.

Irrigation and Agriculture.—In 1902 3,415 miles of new ditches were constructed in the State, at a cost of $1,873,284, and nearly 1,000,000 acres of land were reclaimed. Numerous agricultural products were valued at $4,275,000. Fruit orchards yielded handsome profits for the first time, and fruit-growing is now well established. There was produced in the State 21,000,001 pounds of wool, valued at $3,900,000.

Mining.—The year was a banner year in copper-mining; although the output did not exceed that of 1901. Many new mines were opened up, however, and these properties are now ready to produce the red metal. Probably the most important event in the State's mining history was the completion of the Southern Wyoming Aerial Tramway, from the Ferris-Haggarty copper-mine at Battle Lake to Grand Encampment, 16 miles, It being the longest aerial tramway in the world; and the completion of a 500-ton concentrating and smelting plant at Grand Encampment. These improvements cost approximately $1,000,000. The Standard Oil interests purchased heavily in the Wyoming copper lands in the fall of 1901, and now own many of the copper-producers. The output of copper was valued at $1,700,000; iron, $413,000; silver, $500,000; gold, $783,000; platinum, $3,100; soda ash, $500,000; coal, $2,000,000. The total value of the mineral output was $9,555,278.25.

Much progress was made in the development of the coal-fields. In the Uinta fields 15 drilling-rigs were in operation, and 4 flowing-wells were established; in the Popo-Agie fields 2 producing-wells were added to the number, making 8 all told; in the Salt Creek fields 3 more producing-wells were secured, making 12 there; in the Bonanza fields a lubricating oil even richer than that found in the Uinta fields the previous year, which was pronounced the richest oil ever found in the world, was discovered. One well was drilled and a strong flow of oil encountered at a depth of less than 1,000 feet. English and other foreign syndicates are securing large tracts of oil-land in the State and have already begun operations.

URUGUAY, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 19 members, elected for six years in the departments which they represent by electoral colleges, and a House of Representative, elected by the voters in each electoral college for three years by the votes of all adult male citizens who can read and write. The President of the republic is elected for four years. Juan Lindolfo Cues-tas was elected President for the term beginning March 1, 1896. The Vice-President is Juan Carlos Blanco. The Cabinet at the beginning of 1902 was composed as follows: Minister of War and Marine, General B. Gómez; Minister of Interior and Justice, Eduardo McEanch; Minister of Agriculture, Industry, Public Instruction, and Public Works, Gregorio L. Rodríguez; Minister of Finance, Diego Varela; Minister of Foreign Affairs and Worship, Dr. German Roosen.

Area and Population.—The area of Uruguay is 72,110 square miles. The population was estimated on Dec. 31, 1900, at 930,860. The cotton growers are enumerated in the imperfect census of March 1, 1900, 24,720 were Brazilians, 24,349 Italians, 23,532 Spaniards, 9,140 Argentinians, 4,186 French, 994 Swiss, 708 Germans, and 491 of French extraction.

Finance.—The revenue in the year ending June 30, 1900, was $15,209,024 in silver. The revenue for the financial year 1902 is estimated at $10,100,000, of which $10,000,000 comes from customs, $1,259,000 from a property tax, $234,000 from trade licenses, $786,000 from factor taxes, $431,000 from internal revenue, $815,000 from stamps, $200,000 from bank profits, $234,000 from posts and telegraph, $51,000 from postal savings, etc. The expenditure was estimated at $16,160,996, of which $371,833 were for Congress, $65,576 for the Presidency, $144,400 for the Ministry of Foreign Affairs, $2,101,979 for the Ministry of the Interior, $898,292 for the Ministry of Finance, $1,130,336 for the Ministry of Public Works, $1,750,322 for the Ministry of War and Marine, $394,130 for judicial expenses, and $9,451 for national obligations. Extra 24 per cent. import and export duties have been imposed to raise means for improving the port of Montevideo, but they do not figure in the budget, nor does the receivers enumerated in the imperfect census of March 1, 1900, 24,720 were Brazilians, 24,349 Italians, 23,532 Spaniards, 9,140 Argentinians, 4,186 French, 994 Swiss, 708 Germans, and 491 of French extraction.

Commerce and Production.—The raising of cattle and sheep is the main industry, but agriculture is advancing. The exports of wool in 1900 were 39,827 bales, about 246,827 tons; of corn, 486 tons; of wheat flour, 18,129 tons. The production of wine was 23,541 hectoliters. The yield of gold in 1899 was 96 kilograms. The total value of merchandise imports in 1900 was $23,978,203 in gold, and of exports $29,388,187. The durable imports were $22,678,064 in value out of a total importation of $25,532,786 in 1899, and $33,958,940 out of a total exportation of $35,958,940 in 1899. The export of merchandise amounted to $574,164 paid duties. The duties collected in 1900 amounted to $9,433,269. The imports of articles of food and drink in 1900 were valued at $7,521,518; of tobacco, $210,421; of textile goods, $4,106,063; of clothing, $1,302,443; of raw materials and machinery, $7,253,877; of miscellaneous merchandise, $3,584,081. The exports of live animals were valued at $534,516; animal products, $28,620,926; agricultural products, $1,669,617. The exports of jerked beef were $6,042,345 in value; of extract of beef, $1,319,157; of hides and skins, $3,183,057; of tallow, $1,001,796; wool, $2,350,000, etc. The value of coin in 1900 were $1,533,388 and the exports were $3,054,052. Of the total imports in 1899 $21,870,978, and of the exports $23,340,239, passed
through the port of Montevideo. In 1901 there was a small decrease in imports, the total value being $23,601,652, compared with an average of $24,850,000 for the preceding six years. Exports declined to $27,731,126 owing to a failure in the wheat-crop and a fall in the price of jerked beef in Brazil.

Navigation.—The number of vessels engaged in foreign trade entered at Montevideo during 1900 was 1,206, of 5,318,654 tons; cleared, 1,083, of 2,065,733 tons. In the coasting and river trade the number entered was 2,029, of 507,110 tons; cleared, 2,063, of 508,980 tons. Work on the improvement of Montevideo harbor began in July, 1901.

Railroads, Posts, and Telegraphs.—The railroads have a total length of 1,080 miles. The cost of construction was $21,110,887, of which $25,750,418 has a guarantee of 4 per cent. interest from the Government, covering 882 miles.

The telegraph lines in 1899 had a length of 4,625 miles, including 1,030 miles of railroad telegraphs. The post-office forwarded 10,814,176 letters, 310,324 postal cards, 39,190,625 printed enclosures, and 1,436,889 parcels in 1900.

Political Affairs.—President Cuestas, who, unlike his predecessors, has not added to the public debt, began in 1901 to curb the ambition of military politicians aspiring to play a part in the next administration by enforcing discipline in the army. The commercial and industrial development of the country is hampered by the enormous foreign debt incurred for wasteful and extravagant purposes, the interest of which is a heavy drain on the country's resources, represented by an average annual adverse balance of trade of $7,500,000. The heavy import and export duties cripple external commerce. The harbor works at Montevideo are being pushed forward. In July 2 Senators were ordered to be banished and several military officers to be arrested on a charge of plotting the assassination of the President. The Senate protested against the unconstitutional violation of parliamentary immunity. The President justified the decree as necessary for public safety, and promised to communicate the details of the conspiracy to the Chambers as soon as the inquiry was completed. The Chambers demanded an immediate full explanation of his illegal action. The Government then withdrew the decree of banishment and set the officers free without presenting any proofs of the alleged conspiracy. Señor McEachen resigned from the Cabinet to become president of the Bank of the Republic and on Oct. 10 Diego Pons left the Ministry.

UTAH. (See under UNITED STATES.)

VENEZUELA, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 40 members, 2 from each state, elected for four years by the state Legislatures, and a House of Representatives of 55 members, elected for four years by the popular vote, 1 Representative to 35,000 of population. The President is elected for two years by the Federal Council of 19 members, who are elected for the presidential term by the Congress. Gen. Cipriano Castro, appointed provisional President in October, 1899, was in due form elected President of the Republic in October, 1901. The Cabinet was appointed on April 10, 1901, was composed as follows: Minister of the Interior, Gen. J. A. Velutini; Minister of Foreign Affairs, Dr. Eduardo Blanco; Minister of War and Marine, Gen. Genoves Casas; Minister of the Treasury, Ramon Tello Mendoza; Minister of Public Instruction, Dr. Felix Quintero; Minister of Public Works, Juan Otañez; Minister of Fomento, Gen. F. Arocha Gallegos. An act for the reestablishment of the 20 states, which were reduced to 8 in 1864, was passed in 1899, and provision was made for their autonomous administration until the new federal Constitution is completed.

Area and Population.—The award of the Court of Arbitration given on Oct. 3, 1899, reduces the area claimed for Venezuela by about 60,000 square miles, which are now included in British Guiana. The Schomburgk line was adopted as the boundary except at coast, where the line starts from Punta Playa, instead of at the mouth of the Amakuru, thus giving to Venezuela the lower Barima river; and at the Cuyuni river, where the boundary ascends the Waramu, instead of following the Cuyuni up to its source, thus giving to Venezuela the Cuyuni gold-fields. The total area of the republic is estimated at 593,943 square miles. The population at 2,444,818.

Finance.—The revenue is collected and disbursed by a Department established by Congress, for five years, by the Bank of Venezuela, which receives a commission of 2 per cent. on money collected and on disbursements and makes advances to the Government up to 6,000,000 bolivars at 8 per cent. interest.

The consolidated external debt on July 31, 1901, amounted to $2,638,200, besides $257,224 of unpaid interest. It consists of Venezuela's share in the old debt of Colombia, the share amounting originally to $2,794,796, converted in 1881 to $2,750,000 of new consolidated bonds. Besides this debt 48,920,000 bolivars of bonds for the settlement of arrears of railroad guarantees were issued at 5 per cent. in 1896, equivalent to $1,939,000, on which $336,534 of interest were due, making the total for 1899 $2,871,140. The internal debt amounted to 110,000,000 bolivars, besides 10,175,000 bolivars for water-works at Caracas.

The Army and Navy.—The permanent army was reorganized under President Ramon Tello in 1896. The military forces consist of 300 men, which were stationed in 20 towns and in other federal posts and on the ships. Every Venezuelan between the ages of eighteen and forty-five years is enrolled in the militia, and in times of civil war as many as 60,000 men have been called into the field. The naval force consists of 3 steamers and several small gunboats.

Commodore and Production.—Sugar, coffee, cacao, and grain are cultivated in the coast regions, live stock grazes on the rich pastures farther inland, and from the forests of the remote interior are brought down rubber, copal, vanilla, tonga beans, and other tropical products. The live stock is estimated at 191,079 horses, 89,186 mules, 312,210 asses, 2,004,357 cattle, 176,668 sheep, 1,647,272 goats, and 1,618,214 hogs. The exports of coffee in 1900 were 10,300,505 kilograms from La Guaya, 14,965,724 kilograms from Puerto Cabello, 13,107 kilograms from Ciudad Bolivar, and 29,829,464 kilograms from Maturín; of cacao, 7,566,180 kilograms from La Guaya, 525,187 kilograms from Puerto Cabello, 39,481 kilograms from Ciudad Bolivar, and 184,456 kilograms from Maturín; of hides, 7,524,578 kilograms from La Guaya, 630,363 kilograms from Puerto Cabello, 1,495,937 kilograms from...
indemnification of losses incurred during the civil wars, amounting to 1,500,000 marks. These claims, analogous to the French, the President appointed a commission to examine, and also similar claims of Americans, Frenchmen, and Italians. There were other claims for goods supplied by German merchants. Lastly, there was the defaulted interest on the loan of 50,000,000 francs, about one-third of it held by a German banking institution, while the remaining third was divided equally between French and British capitalists. The loan could not be placed on the market because in 1896, when Venezuela failed to meet its obligations. The interest and sinking-fund in arrears amounted to over 9,000,000 francs. Germany and the other countries interested declined to recognize the jurisdiction of President Castro's commission. The German Government recognized as valid about 40 claims for losses in the revolution of 1896, amounting to 1,700,000 francs. The damage arose from the failure of the Venezuelan Government to pay for goods supplied to the troops, from requisitions made in war time, from footing, and from forced loans. On Jan. 20, 1900, Germany, in accordance with the claim submitted to the Venezuelan Supreme Court. This commission rejected some of the claims as baseless. Damages suffered prior to May, 1896, it refused to recognize on the ground that the party of President Castro had committed them and the present Government was not responsible. It also proposed payment in a revolutionary loan. Germany refused to accept the decision. Early in 1902 the Venezuelan Government passed another law, but it was open to the same objection. The Venezuelan Government took the ground that money claims of foreigners must be decided by Venezuelan laws on the same basis as claims of Venezuelan citizens. The German Government declared that if a diplomatic settlement was precluded it would examine the claims of Germans for itself and demand payment of those that it found just. President Castro said that a special act of Congress would solve the difficulty and offered to pay the claims before Congress. The German Government declined to submit them to the Venezuelan Court, having investigated them and demanded payment of the total amount. In the disturbances of 1901 and 1902 damages have been suffered to the amount of 3,000,000 francs falling on Germans. Great Britain, Italy, the Netherlands, Spain, and the United States united with Germany in finally rejecting the decree of January, 1901. While Germany was pressing the claims of her citizens in the spring of 1902 several German war-ships were sent to the coast of Venezuela. At the approach of summer they went to more salubrious stations.

Quarrel with England. — President Castro has had chronic difficulties with the British authorities of Trinidad growing out of the smuggling trade that is rendered profitable by the high import duties and the still more profitable trade in contraband of war and transport for revolutionists. The low island of Patos, between Trinidad and the Venezuelan shore, a convenient base for smuggling, was claimed by Venezuela, but Great Britain disputed the claim. In January, 1901, the Venezuelan revenue officers seized a boat-load of goods from a Trinidad fisherman who ran in theory to escape the duties in Venezuelan waters. A sloop was seized and burned. Another sloop loaded with valuable goods took refuge in Patos in August, 1901, and the crew buried the goods, but the revenue officers landed and seized them and arrested the crew. In January, 1902, a British sloop was seized and detained in the Barima river. In May a British vessel suspected of filibustering was destroyed by a Venezuelan gunboat in the harbor of Pedernales. Later a vessel believed to have landed a cargo of arms was chased and captured on the high seas, taken into port, and confiscated. In each case the British Government demanded explanations, and would not accept such as were offered nor acknowledge that the islet of Patos was Venezuelan territory. In cases where the Venezuelan Government could not defend its officers it put off discussion till a more convenient opportunity. On July 27 the British minister to Venezuela recited all the incidents complained of and intimated that unless Venezuela gave assurances that no such unwarrantable acts would recur and promptly paid compensation his Government would take steps of a serious character. The Venezuelan minister on Aug. 2 replied that the incidents on the island of Patos were already disposed of, Venezuela having established her rights to the island and proclaimed its neutrality. Great Britain based on legal grounds, and that the rest were settled or on the way to a settlement, but when the Ban Righ committed her inhuman and illegal acts Venezuela showed open partiality in a sense hostile to the peace of Venezuela the President decided to postpone dealing with these matters until he should receive an answer to the extraordinary circumstances he had laid before Great Britain in consequence of the attitude of the British authorities in connection with that vessel. These remonstrances were contained in notes presented on Feb. 28, March 8, March 13, and April 3. The British note complained of conduct of the Venezuelan consul in Trinidad, and that the Venezuelan government had been in communication with Great Britain on the subject of theagrarian reforms in connection with the partiality of the colonial authorities. On Nov. 11 the Venezuelan Government was informed that if it persisted in its refusal to discuss the complaints the British Government would be obliged to consider what steps should be taken for the protection of British interests. The Venezuelan reply, dated Nov. 15, expressed regret with regard to the Ban Righ and the attitude of the Trinidad authorities had not been examined and called attention to the eagerness of the British Government to discuss matters that were of secondary importance when contrasted with the interest felt by Venezuela in obtaining recognition and respect for claims arising from the grave injuries caused by the Ban Righ and the facilities afforded to the revolutionaries by the colonial authorities in Trinidad, which claims have been met by a most unfair refusal of the British Government to consider the matter. The British flag was raised in September over the island of Patos, which is about a mile long and a third of a mile broad and is uninhabited, but has been a resort for smugglers and fishermen. The Venezuelan Government protested against this, reiterating its claim by sovereignty over the island. On Dec. 2 the British minister at Caracas presented a peremptory demand for the satisfaction of British claims. The British Minister of Foreign Affairs, Dr. Lopez Baralt, in his reply again complained that reparation was not made for the injury inflicted by the Ban Righ and stated that, the Venezuelan Minister of Foreign Affairs was impossible for the moment for the Government to meet its debts, but as soon as peace was reestablished in the country it would not be nec-
soldiers who attempted to reestablish traffic were driven away by the rebels, which halted the progress of the train. The conflict continued at Barcelona. Insurgents rose in the vicinity of Caracas and began a fight on Sept. 5 with the Government troops. The advanced guard of the revolutionary army, consisting of 400 men, under Generals Mendoza, Batalis, and Riera, were met Sept. 11 by 4,100 troops under Gen. Garrido, who had succeeded Gen. Guerra as Minister of War. When the insurgents had taken Angelourt and other intermediate towns the Government authorities took forcible possession of two steamboats of the American company to serve as transports. When 1,100 rebels advanced to take Cumaná the garri son of 300 men retired. The revolutionists collected the customs at Bolivar, Cumana, Cano, Colorado, Guaira, Coro, and Bar celona. They received a large shipment of Maunin guns and ammunition and some field-guns from Germany. They cut the English railroad near La Guayra. Wherever the revolutionists held a seaport President Castro declared it closed and proclaimed a blockade. His gunboats were under Gen. Mendoza, a blockade of even one port, and therefore the British and German governments refused to recognize any blockade, and their cruisers protected vessels trading with the ports and in the Orinoco river. The rebels at Barcelona attempted to force a loan from the American consul, who is a Venezuelan citizen, but were intercepted when the American naval authorities interfered for his protection. Telegraph communications in the interior were blocked by them since early in the rebellion. The Government arrested the employees of the French Cable Company at Caracas and cut the cable. President Castro issued a proclamation denouncing Gen. Mato as a traitor who offered to hand over the financial administration of the country to foreign capitalists and ordering him to be tried as a private. While Gen. Matos advanced to Camatagua, in the state of Miranda, 50 miles south of Caracas, intending to form a junction with Gen. Ocampo, who had till now avoided a pitched battle and succeeded in harassing and wearing out Castro's troops, Gen. Mendoza had arrived at Tucuyito with 2,000 men. Gen. Castro, who was at Ocumare, concentrated his troops, withdrawing those that were posted to stop Ma tos, and with a force of 3,000 men he marched against Caracas. Gen. Mendoza thereupon retreated toward Villa de Cura. Valencia was saved from falling into the hands of the insurgents, but the stragglers only delayed matters. Gen. Matos, finding the way clear, marched through Ocumare and San Sebastian, hoping to effect a junction with Mendoza near Villa de Cura. Gen. Castro earlier succeeded in joining forces with Gen. Garrido and had an army as strong as that of the veteran Gen. Luciano Mendoza, whom he feared more than Gen. Matos. Gen. Mendoza attacked Castro at La Victoria, and there was savage fighting that lasted a week. Gen. Gomez arrived with reinforcements for Castro on the second day. The wounded perished without care under the tropical sun. The revolutionary army numbered about 8,000, Castro's not quite so many. After many hundreds had been killed on both sides Gen. Mendoza on Oct. 17 abandoned his positions and retreated. Gen. Ocampo, however, continued his advance and, with his own courage and energy. The rebels received reinforcement on the fourth day and completely fell La Victoria, which would have fallen if the Government forces had not received fresh ammunition by railroad. The rebel losses were reported to be 1,000 in killed and wounded, and those of the Government side 1,400. The rebels attacked Caracas and retreated after a hard fight. President Castro still remained at La Victoria with 5,000 men. The revolutionists returned and renewed the attack. When Vice-President Gomez withdrew all the troops from Caracas, the seat of government was transferred to a provisional capital in the Guacaipuru district. It is the custom of Venezuelans in their civil wars to spare their beautiful capital. The revolutionists had about 10,000 troops cantoned at San Sebastian, San Juan de los Moros, Cua, Ocuma, and Villa de Cura, forming a ring of stations around Caracas. Deserti ons had greatly reduced Gen. Castro's forces, but he still had a formidable and trustworthy force in his 5,000 Andine troops. The revolutionists succeeded in cutting communications between La Victoria and Caracas and destroying the railroad. They attempted to take Los Teques, but were repelled. Soon after they were placed on the map of the rebel strongholds that they were short of ammunition, began to press them, and drove them from several of their positions. The rebel troops posted in front of La Victoria were routed and pursued toward Guarico. The bodies commanded by Gen. Riera and Gen. Mendoza dissolved on the approach of the Government troops. The whole organized rebel army broke up into guerrilla bands that disappeared on the appearance of the Government troops. Gen. Matos fled to Curico. Gen. Rolando kept 900 men together, with whom he fell back on Laezama. The ministers returned to Caracas. President Castro's troops reoccupied Coro and Cumana. Ciudad Bolivar was still held by Gen. Ferrera and Barcelona by Gen. Pablo Guzman. An armistice was declared after Barcelona had been recaptured.

**French Claims.**—Before the Matos expedition was fitted out the French claim of indemnities for maltreatment of French citizens during the revolution of 1892 were brought once more to the attention of President Castro's Government, which was anxious to re solve diplomatic relations. France made the claims that had caused a rupture in March, 1895, fearing that France would impose duties on cacao by way of reprisal. A protocol was signed relating to the resumption of normal diplomatic intercourse, a treaty of commerce and navigation with the favored-nation clause was negotiated, and an agreement was made referring the claims of French citizens to the arbitration of Senor Leon y Castillo, Spanish ambassador at Paris, acting with one representative of each of the two countries. The protocol was ratified on April 18. Claims to the amount of 2,000,000 francs antedating the last revolution were excluded from the arbitration. The claims to be determined and settled amounted to 54,000,000 francs, including 18,000,000 francs for the railroad running from Maracaibo, which was practically destroyed. It was proposed to assign the receipts of one or two custom-houses to the payment of these debts. Property losses were deemed urgent in demanding the satisfaction of the claims of German citizens. There were claims for
manded their surrender. The Venezuelan officers and crews left the vessels, which were then towed outside. The Gen. Crespo, the Totumo, and the Margarita the Germans sank in the night. The reason given was, they were not sufficiently seaworthy to undertake the voyage to Trinidad alone, while to tow them thither would impede the freedom of action of the German fleet. The German ships Falko and Panther were then steamed away to Carupano to seize the Venezuelan vessel that was blocking the mouth of the Orinoco. This blockade the British and German defied after officially pronouncing it null, before coercive steps were taken in the matter of the claims, by sending war-vessels up the Orinoco river, against which action President Castro formally protested. The representatives of France and Italy joined in the declaration that the blockade was ineffective, but the United States minister declined to identify himself with them in its notice. The President replied to the seizure of the fleet by arresting all the British and German residents in Caracas, and such was the spirit of resentment for the aggressive acts of the two powers that in their citizens with the moment safer in prison than in their homes against the mob which damaged the German legation building and some European property. The President ordered the imprisonment of British and Germans in the country, but on the urgent remonstrance of Mr. Bowen he released them on the following day and had them escorted to ships that took them away. The German frigate that had been chartered by the Venezuelan Government, was the only vessel found at La Guayra that was sunk by the allies. The Venezuelan flag-ship Bellivar was seized at Port of Spain. On Dec. 10 the troop-ship Zamora was taken, and on Dec. 12 the gunboat Restaurador, formerly the American yacht Atlanta, was seized at Guanta. The ship Topaze at Puerto Cabello was compelled by a mob to lower the British flag. The commander of the British cruiser Charybdis demanded reparations. Before receiving a reply he shelled the forts, which responded feebly. When the guns were silenced a landing party destroyed with dynamite and fire the Libertador Castle and made a prisoner of the commandant. In retaliation the towns of the English harbor corporation at La Guayra were threatened with violence by a mob and also with arrest by Venezuelan soldiers before British musketry could be brought to bear on the Italian soldiers. The Italian Legation had examined the claims of Italians for compensation and pronounced claims amounting to $306,000 francs to be valid. The Italian colony in Venezuela numbers 7,000 persons. The Venezuelan Government did not anticipate coercive action from Italy because, in the treaty concluded with that country on June 19, 1861, it is stipulated that in case of claims for damages arising out of revolutionary acts Italians shall receive the same treatment as that accorded to Venezuelans. President Castro, in appealing for the diplomatic intervention of the United States, complained because the powers had acted before they had resorted to the Venezuelan courts for a decision on their monetary claims, which were insignificant in amount and entirely disproportionate to the efforts made to collect them by force, and because they had proceeded to hasty and violent measures before the resources of diplomacy were exhaustible. The government of all the allies by the Venezuelan tribunals have in many cases obtained awards. The Venezuelan Government contended that it is a recognized principle of international law that when the courts of a country are open to claims for damages against the Government, diplomacy shall not be resorted to until the claims have been presented to the court and there has been a manifest denial of justice or unusual delay or a violation of international law. This doctrine was accepted by the delegates to the Pan-American Congress at Mexico. Another principle of international law that Germany and Great Britain set at naught for bids armed intervention for the collection of public debts or guaranteed interest. Italy determined to join in the naval hostilities, and sent the cruiser Giovanni Bausan. The Italian minister to Venezuela on Dec. 13 forwarded an ultimatum analogous to those presented by Great Britain and Germany. Italy first proposed to Germany and Great Britain to be associated with them in the measures they were about to take, and in any arrangements that might be made, as the claims of Italians were of the same nature as those pressed on behalf of Germans and British. This proposal was favorably received. Commodore Schedler selected La Guayra as the center of the movements of the German ships of the more distant part of the coast and neither was responsible for the acts of the other except when they acted in concert. The squadron sent by Great Britain under Admiral Douglas was much the stronger, having a tonnage of 26,000 tons and 1,700 available men in the crews. The Italian naval force arrived on Dec. 16. The United States commanded two squadrons to observe developments and to be ready to defend American interests or protect American lives and property, consisting of the Reasarge, Alabama, Massachusetts, Iowa, and Scorpion, under Rear-Admiral Higginson, and the Chicago, Newark, and Eagle, commanded by Rear-Admiral Summer. After a few days most of the vessels returned to their station in Porto Rico. A wave of patriotic enthusiasm swept over Venezuela. All citizens fit for military duty enrolled themselves in the militia, even those belonging to the revolutionary party. The people everywhere pledged themselves to buy no British or German goods while the differences remained unsettled and foreign military forces menaced Venezuela. When the news that the towns of Cabildo reached the capital 10,000 men surrounded the Government building clamoring for arms to repel the invaders. The Government ordered the enrollment of the men of the cities and regions of eighteen and forty-five, and Gen. Ferre formed an entrenched camp between La Guayra and Caracas, which was occupied by 3,000 troops under the Minister of War and Gen. Modeo Castro. President Castro issued a proclamation granting amnesty to all political offenders and restoring confiscated estates. The Venezuelan consul at Port of Spain in Trinidad closed his office and departed. The German cruiser Panther attempted to enter the harbor of Maracaibo to take out the only war-ship not yet seized, which was moored along the wharf. Gen. Bello, the commandant at the old Spanish castle of San Carlos, fired a warning shot. The German vessel did not go in and take the Venezuelan vessel until the Vineta, Falko, and Panther of the German squadron shelled the fort. The old guns of the Venezuelans responded and did some damage to the nearest German vessel. The vessels departed, but returned next day with 12 guns to shell the fort. The village of San Carlos was destroyed, and some of the inhabitants were killed. On Dec. 12 President Castro requested Minister Bowen to arrange a settlement with the allies.
A blockade of the coast of Venezuela was declared on Dec. 20. The Germans blockaded the ports from La Guayra to the Colombian frontier, and the British cut off the mouth of the frontier of Demerara. The American merchant steamer Caracas, which had started on a voyage to La Guayra, was permitted to enter the port, but before half the cargo was discharged the German naval authorities on Dec. 23 compelled her to leave. On the same day the British, German, and Italian Cabinets, to which the Venezuelan proposal to arbitrate had been transmitted from Washington with an offer of the good offices of the United States, accepted arbitration in principle. The powers consented to arbitration of their claims by The Hague tribunal, subject to certain conditions which it was first necessary to discuss. When the proposal was first made through Minister Bowen the British and German governments at the suggestion of Germany offered to submit the whole dispute to the arbitration of the President of the United States. President Roosevelt was urged by them to undertake the task, but on Dec. 27 he definitely declined and suggested the International Court of Arbitration at The Hague as the proper tribunal. The American minister to Venezuela, who left Caracas on Jan. 13, was driven to Washington on Jan. 20, conducted the negotiations with Count Quad, the German chargé d'affaires at Washington, Sir Michael Herbert, the British ambassador, and Sir Manuel Echeverria, the Italian ambassador. Baron Speck von Sternburg soon arrived to take charge of the German negotiations. The claims for which guarantees were demanded amounted to 31,000,000 francs. The German claims were 8,750,000 francs, the English 22,500,000 francs. The blockade was seized and hostages taken in accordance with the laws of neutrality, and the captured ships were moored at Margarita island. Italy sent a second ship and undertook the blockade of the coast of Tacarigua and Coro. Mr. Bowen, after his arrival in Washington, suggested that the blockade should be lifted by the plenipotentiary of the Venezuelan Government, an office he was authorized by the State Department to assume for him. The British, German, and Italian representatives at Washington. This proposal was promptly accepted by the three powers. The chief conditions made by the allied governments were cash payments of their claims of the first line and adequate guarantees for the settlement of the others. Mr. Bowen proposed that all countries having claims against Venezuela should have share in the proceeds of the customs duties, which have been the chief source of revenue for the Venezuelan Government, and hence were the only satisfactory guarantee Venezuela could offer President Castro offered to pledge a sufficient proportion of the customs receipts on condition that all the foreign claims should share pro rata. In satisfaction of the demands of immediate cash compensation for acts of violence he offered to raise a certain sum of money covering a part of the claims. Germany, supported at first by England, demanded that the cash claims should be paid out of the receipts of the customs houses at La Guayra and Puerto Cabello before any other debts. Italy supported Germany throughout. To give claims asserted by force a priority over those settled by diplomacy Mr. Bowen contended would encourage warlike action in the collection of claims. The British minister, who had taken umbrage at the suggestion of Minister Bowen that this would mean a continuance of the Anglo-German alliance, was compelled to yield this point. Objections were made on behalf of France, who contended that her claims were already settled and payment arranged for. Mr. Bowen's proposal was that 30 per cent. of the customs revenues of the ports of La Guayra and Puerto Cabello be set apart as a fund for the liquidation of claims made by all foreign governments against the Government of Venezuela. This was separate from and in addition to a fund of 13 per cent. of the customs revenue of all the ports to be applied to the payment of the prior claims of France and some other nations which anticipated the Castro administration and had been adjudicated and arranged previously. The proposal contemplated the supervision of the customs administration by officials appointed by Belgium, a neutral power having no navy, which had a large aggregate of pecuniary claims. Other creditor nations, besides Belgium, France, England, Germany, and Italy, are Spain, Norway, Sweden, Netherlands, and the United States. When the representatives of the three powers insisted that the 30 per cent., or a part of it, be applied directly to the payment of the claims of other powers were paid Mr. Bowen proposed to refer the question of the preferential treatment to The Hague Court of Arbitration. The ambassadors suggested arbitration by President Roosevelt, who again declined to act. The claims for which the 13 per cent. of the customs duties was reserved amount to 70,000,000 francs. No payments had been made for a year. France filed additional claims amounting to 65,000,000 francs, and Belgians claimed 56,000,000 francs. Venezuela offered to pay each of the blocking powers as an evidence of good faith $27,500 on the day when the blockade is raised. Great Britain was willing to accept the final offer, and to let the question of preference be decided by The Hague tribunal, but Germany and Italy still held out for a percentage of the customs revenue to be reserved for the satisfaction of their original cash demands, amounting to $340,000, of which Germany and Italy finally agreed to accept a cash payment of $5,500 each. The German Cabinet insisted on $340,000, which Mr. Bowen conceded under protest, and that payment of $250,000, the blockade shall be lifted immediately. Venezuela shall at 30 per cent. of the customs of the two ports for the payment of claims to all countries, which money shall accumulate until the court of The Hague decides the question of preferential treatment and until all claims have been adjudicated, when pro rata payments shall begin and continue monthly. If Venezuela defaults in the payment of one instalment Belgium shall administer the customs at the two ports until all claims as adjusted by mixed tribunals shall be satisfied.
Ciudad Bolivar, and 335,039 kilograms from Maracaibo. There were 1,253,342 kilograms of rice sent from Ciudad Bolivar, and 43,311 kilograms of tobacco; 18,774 head of cattle from Puerto Cabello and 6,496 from Ciudad Bolivar; 35,189 kilograms of goat- and deer-skins from Ciudad Bolivar; 838,128 kilograms from Puerto Cabello; and 125,866 kilograms from Maracaibo; 53,822 kilograms of copra from Puerto Cabello; 5,421,530 kilograms of fustich, 1,781,012 kilograms of dividivi, 4,090 kilograms of cinchona bark, 36,587 kilograms of copaiba, 42,901 kilograms of fish sounds, and 274,533 kilograms of sugar from Maracaibo; and 1,316 kilograms of gold bullion, valued at $589,000, from Ciudad Bolivar. Feathers for millinery are an important article of export. The principal imports are provisions, textiles, hardware, coal, petroleum, timber, and machinery. Coffee is exported to the United States, France, and Germany; cacao to France, Spain, and Germany; hides to the United States; rubber and feathers to Great Britain.

Navigation.—Maracaibo was visited in 1900 by 403 vessels in the foreign trade, Puerto Cabello by 262, La Guayra by 205, Ciudad Bolivar by 73.

The merchant marine in 1900 consisted of 18 sailing vessels, of 2,836 tons, and 12 steamers, of 2,567 tons.

Railroads and Telegraphs.—There are 329 miles of railroads. A new line to connect Yaritagua with Puerto Cabello was contracted for in 1899. The telegraphs have a length of 3,882 miles.

Invasion began in the beginning of 1902 for the overthrow of President Castro was headed by M. Matos, the wealthiest of Venezuelans, who purchased the British steamer Ban Righ, loaded her in Europe with rapid-fire guns for her own armament and field-guns, many thousand rifles, and a vast quantity of ammunition for the army. A large force embarked at Trinidad; the steamer was converted into a warship bristling with guns, her name changed to the Bolivar, and after she had sunk the only serviceable vessel of the Venezuelan navy near Castaño, Matos left to capture her. Matos could land his expeditions at any part of the Venezuelan coast that he desired and bring all the supplies he wanted from Trinidad. Castro had no force in the country ready to join in the insurrection. The forces of Matos consisted of 15,000 men, divided into 25 sections. They occupied the strategic positions where the Government was weak, and in various ways made the country ready to join in the insurrection. The forces of Matos were at Curao, and threatened to advance on Caracas from the Cumaná district and from the Colombian border. Revolutionists rose in bands in many places. When the expedition arrived on Jan. 2 and landed 6,000 Mausers the Government force of 500 men at Coro joined the rebel Generals Urbania, Fernandez, and Garcia. Generals Guzman, Monorges, and Patero, of the revolutionary army, had their way in Carabobo and Guarico. Generals Batalla and Fernandez Cedeno rose against the Government, and the latter twice defeated the Government troops in Carabobo. Gen. Vasquez headed a successful rising at Carupano. The Government troops had difficulty in putting down an insurrection in Maracaibo. The rebels were victorious near Barquisimeto. A severe engagement was fought without result near Uchire. Contributions were levied on foreigners by the authorities in various places. Many peripherals were taken and General Pulido and Urbanage, were arrested at Caracas. On Feb. 27 the Venezuelan Congress elected Gen. Castro as President for another term of six years to begin on Feb. 20. An invasion from Colombia under Rangel Olivera and 4,500 men was attacked near La Guayra. President Castro sent troops to meet the revolutionists who laid siege to Barcelona, Carupano, and Cumaná, and held the port of Tucacas. The revolutionists, who numbered 3,540 men, defeated Gen. Escalante on April 3 near Carupano, where he lost 350 men. On the following day he was attacked and routed near El Pilar. The rebels took Barquisimeto. Gen. Ramon Castillo with 2,200 men marched out against them. He was attacked on April 22 near San Antonio, and fatally wounded in the beginning of the engagement, upon which the newly levied troops of his force deserted to the enemy and the others retreated. The Government forced every able-bodied man into the army. Gen. Vincente Gomez led a third army against the rebels at Carupano, which was attacked on May 6 by sea and by land. He also was wounded and his troops were routed on May 6, losing 115 dead and 210 wounded. The Government gunboats shelled the town without the usual notice in spite of the protests of the foreign residents. A new invasion was aided by the Colombians, and 4,000 men crossed the border. The revolutionists captured a Norwegian steamer to carry troops and munitions from Baranacos to Bolivar, and afterward the vessel was attacked and Capt. Meling killed by Government troops. A Greek steamer was attacked by a band of revolutionists on June 7, and the Government forces shelled them from the forts and the warship Miranda, compelling them to retire. Gen. Matos had this at the time, fully organized and equipped, and he began a systematic advance on Caracas. In June he issued a proclamation in which he announced the President, Pedro Ezequiel Rojas as Minister of Foreign Affairs, and Generals Perez and Pedro Duchain as commanders of the armies in the field. The 30 per cent. duty was declared abolished with regard to West Indian imports. He moved with 3,000 men to Uricia, leaving 3,000 still in the State of Bermudez. Coro was held by Vice-President Ayala with a strong force, but on June 26 he capitulated. Insurgents fought the Government troops in the streets of Barcelona early in August and captured the town, killing Gen. Bravo. On both sides 8 generals, 23 colonels, and 167 men were killed and many houses were destroyed. German, Italian, British, and American warships were at La Guayra, and threatened war, as the revolutionists were active. The commanders were ordered to send vessels to Barcelona, where the insurgents were sacking the stores of foreign merchants and did not spare the foreign consulates. Ciudad Bolivar was blockaded by Government vessels. Germany, Great Britain, and France protested against the blockade on the ground that it was ineffective. By the middle of August the revolutionist party obtained possession of Puerto Cabello. The Government forces after a bombardment took Carupano. Ciudad Bolivar was next bombarded. The Restaurantador advanced into close range before firing, flying the American flag. For this Minister Bowlow demanded and received an apology from the Venezuelan Government. On Aug. 22 about 700 rebels entered Carupano and fought all day with 1,000 Government troops under Gen. Velutini. On Aug. 28 the advance guard of the revolutionary army attempted to take Barrancas, but was repelled with a loss of 290 men. The rebellion made progress, however. The German railroad was cut, and no
soldiers who attempted to reestablish traffic were driven away near Los Teques, which the rebels captured. On Aug. 29 they were joined near Ocumare by 550 soldiers, who brought their general as a prisoner. Gen. Matos long made his headquarters at Barcelona. Insurgents rose in the vicinity of Caracas and had a fight on Sept. 5 with the Government troops. The advanced guard of the revolutionary army, consisting of 4,000 men, under Generals Mendoza, Batalia, and Riera, were met Sept. 11 by 4,100 troops under Gen. Garrido, who had succeeded Gen. Guerra as Minister of War. When the insurgents had taken Angeles and other interior towns the Government authorities took forcible possession of two steamboats of the American company to serve as transports. When 1,100 rebels advanced to take Cumana the garrison of 350 men retired. The revolutionists collected the customs at Bolivar, Cumana, Cuno, Colorado, Guaira, Coro, and Barcelon. They received a large shipment of munitions and ammunition and some field-guns from Germany. They cut the English railroad near La Guayra. Wherever the revolutionists held a seaport President Castro declared it closed. His gunboats were useless for maintaining a blockade of even one port, and therefore the British and German governments refused to recognize any blockade, and they permitted the vessels trading with the ports and in the Orinoco river. The rebels at Barcelona attempted to force a loan from the American consul, who is a Venezuelan citizen, but the State, when the orders of the naval authorities interfered for his protection. Telegraph communications in the interior were broken by them since early in the rebellion. The Government arrested the employees of the French Cable Company at Carupano and cut the cable. President Castro issued a proclamation denouncing Gen. Matos as a traitor who offered to hand over the financial administration of the country to foreign capitalists and ordering him to be tried as a private. While Gen. Matos advanced to Camataqua, in the state of Miranda, 50 miles south of Caracas, intending to form a junction with the army of Gen. Luciano Mendoza, who had till now avoided a pitched battle and succeeded in harassing and wearing out Castro's troops, Gen. Matos had ordered at Tocuyito to move with the main body of his troops. Gen. Castro, who was at Ocumare, concentrated his troops, withdrawing those that were posted to stop Matos, and with a force of less than 5,000 he marched with astonishing celerity to Valencia. Gen. Mendozza thereupon retired toward Villa de Cura. Valencia was saved from falling into the hands of the insurgents, but the stratagem only delayed matters. Gen. Matos, finding the way clear, marched through Ocumare and San Sebastian, hoping to effect a junction with Mendoza near Villa de Cura. Gen. Castro earlier succeeded in joining forces with Gen. Garrido and had an army as strong as that of the veteran Gen. Luciano Mendoza, whom he feared more than Gen. Matos. Gen. Mendoza attacked Castro at La Victoria, and there was a day's fighting that lasted a week. Gen. Gomez arrived with reinforcements for Castro on the second day. The wounded perished without care under the tropical sun. The rebels numbered about 8,000, Castro's not quite so many. After many hundreds had been killed on both sides Gen. Men- doza on Oct. 17 abandoned his positions and retreated. His men were disheartened, with a ride in his hands, repeatedly led the assault, to inspire his men with his own courage and energy. The rebels received reinforcement on the fourth day and completely routed the Government forces, which would have fallen if the Government forces had not received fresh ammunition by railroad. The rebel losses were reported to be 1,000 in killed and wounded, and those on the Government side 1,400. The rebels attacked Carupano and retreated after a hard fight. President Castro still remained at La Victoria with 5,000 men. The revolutionists returned and renewed the attack. When Vice-President Gomez withdrew all the troops from Caracas, the seat of government was transferred to a provisional capital in the Guacara-puro district. It is the custom of Venezuelans in their civil wars to spare their beautiful capital. The revolutionists had about 10,000 troops cantoned at San Sebastian, San Juan de los Moros, Cua, Ocumara, and Villa de Cura, forming a ring of stations around Caracas. Desertsions had greatly reduced Gen. Castro's forces, but he still had a formidable and trustworthy force in his 5,000 Andine troops. The revolutionists succeeded in cutting communications between La Victoria and Caracas and destroying the railroad. They attempted to take Los Teques, but were defeated. His gunboats were placed on the defensive. Gen. Castro, having learned that they were short of ammunition, began to press them, and drove them from several positions. Troops posted in front of La Victoria were routed and pursued toward Guaroque. The bodies commanded by Gen. Riera and Gen. Mendoza dissolved on the approach of the Government troops. The whole organized rebel army broke up into guerrilla bands that disappeared on the appearance of the Government troops. Gen. Matos fled to Curaçao. Gen. Roldan kept 900 men together, with whom he fell back on Lezama. The minister returned to Caracas. President Castro's troops reoccupied Coro and Cumana. Ciudad Bolivar was still held by Gen. Ferrer and Barcelona by Gen. Pablo Guzman. An armistice was declared after Barcelona had been recaptured.

**French Claims.**—Before the Matos expedition was fitted out the French claim of indemnities for maltreatment and property losses of French citizens during the revolution of 1892 were brought once more to the attention of President Castro's Government at Tocuyito, and it was suggested that France resume diplomatic relations with France and settle the claims that had caused a rupture in March, 1895, fearing that France would impose duties on American produce. The Government of France was informed that treaties relating to the resumption of normal diplomatic intercourse, a treaty of commerce and navigation with the favored-nation clause was negotiated, and an agreement was made referring the claims of French citizens to the arbitration of Señor Leon y Castillo, Spanish ambassador at Paris, acting with one representative of each of the two countries. The protocol was ratified on April 18. Claims to the amount of 2,000,000 francs antedating the last revolution were excluded from the arbitration. The claims to be determined and settled amounted to 54,000,000 francs, including 18,000,000 francs for the railroad running from Maracaibo, which was practically destroyed. It was proposed to assign the receipts of one of two custom-houses to the payment of these debts.

**German Claims.**—When the Venezuelan Government showed a willingness to settle the French claims, Germany, which had come to an agreement that the preliminary preparations were in progress, became urgent in demanding the satisfaction of the claims of German citizens. There were claims for
indemnification of losses incurred during the civil wars, amounting to 1,500,000 marks. These claims, analogous to the French, the President appointed a commission to examine, and also similar claims of Americans, Frenchmen, and Italians. There were 359 claims for goods supplied by German merchants. Lastly, there was the defaulted interest on the loan of 50,000,000 francs, two-thirds of it held by a German banking institution, while the remaining third was divided about equally between French and British capitalists. The loan could not be placed on the market because in 1897 Venezuela failed to meet her obligations. The interest and sinking-fund in arrears amounted to over 9,000,000 francs. Germany and the other countries interested declined to recognize the jurisdiction of President Castro's commission. The German Government recognized as valid about 40 claims for losses in the revolution of 1898, amounting to 1,700,000 francs. The damage arose from the failure of the Venezuelan Government to pay for goods supplied to the troops, from requisitions made in war time, from looting, and from forced loans. On Jan. 24, 1901, the Venezuelan Government offered the claims to the commission, to which it agreed, which is the appeal that could be taken to the Venezuelan Supreme Court. This commission rejected some of the claims and reduced others. Damages suffered to vessels and materials were not recognized. In August 1899, in his message to Congress, President Castro demanded that the rest were settled or on the way to a settlement, but when the Ban Righ committed her injurious acts and the authorities of Trinidad showed open partiality to Venezuela, the consideration of the attitude of the British authorities in connection with that vessel. These remonstrances were contained in notes presented on Feb. 28, March 8, March 13, and April 3. The British note complained of conduct of the Venezuelan consul in Trinidad, and this the Venezuelan minister said should be considered in connection with the partiality of the colonial authorities. On Nov. 11 the Venezuelan Government was informed that if it persisted in its refusal to discuss the complaints the British Government would be obliged to decide what steps should be taken for the protection of British interests. The Venezuelan reply, dated Nov. 18, expressed regret that the complaints with regard to the Ban Righ had not been examined and called attention to the eagerness of the British Government to discuss matters that were of secondary importance when, the British interest felt by Venezuela in obtaining recognition and respect for claims arising from the grave injuries caused by the Ban Righ and the facilities afforded to the revolutionaries by the colonial authorities in Trinidad, which claims have been met by a most unfair refusal of the British Government to consider the matter. The British flag was raised in September over the island of Patos, which is about a mile long and a third of a mile broad and is uninhabited, but has been a resort for smugglers and fishermen. The Venezuelan Government protested against this, reiterating its claim by sovereignty over the island. On Dec. 2 the British minister at Caracas presented a peremptory demand for the satisfaction of British claims. The Venezuelan acting Minister of Foreign Affairs, Dr. Lopes Baralt, in his reply again complained that reparation was not made for the injury inflicted by the Ban Righ and stated that, the Venezuelan Government considered it impossible for the moment to meet its debts, but as soon as peace was reestablished in the country it would not be nec-
necessary to remind the Venezuelan Government of its obligations.

Crisis with German Blockade.—On July 23 Lord Lansdowne, British Minister of Foreign Affairs, suggested to the German ambassador at London joint action of the two governments to obtain satisfaction for their respective claims against Venezuela. The German Government proposed a joint naval demonstration. A blockade of La Guayra, Puerto Cabello, and Maracaibo was suggested by the naval authorities, or, as an alternative, the seizure of all the gunboats of Venezuela, until the demands were complied with. Lord Lansdowne preferred the latter plan, as a blockade was open to objections. On Nov. 11 Germany agreed to join Great Britain in addressing an ultimatum to Venezuela and acceded to the plan of seizing the gunboats as the first step. Before embarking, however, in a project of joint coercion the German Government desired to have it understood that the British and German claims should stand or fall together, that neither claim could be settled without an equally satisfactory settlement of the other, and that neither Government should be at liberty to recede except by mutual agreement. The British minister accordingly announced that he should support the other’s demands, and should not desist from doing so except by agreement. The British Government divided its claims into three classes, placing in the first rank cases of unjustifiable interference with the liberty and property of British subjects and with British vessels, next injury to property in the revolutions, and last claims against Venezuela. It was not desired, however, to distinguish them in making the demands upon Venezuela, but to obtain a general settlement, as it was believed that to advance any one class of claims or to specify any particular amount would diminish the chance of obtaining reparation in all cases. If the Venezuelan Government returned an unsatisfactory answer or none at all to its last note the British Government was ready to proceed to coercive measures. If the seizure of the gunboats failed to produce the desired effect, England and Germany could, therefore, with certainty be the next step. On Nov. 28 President Castro, in conformity with an act of Congress, appointed a new commission to examine all claims of foreigners, but none were presented. The British minister then demanded that each sent 8 vessels of war to the coast of Venezuela. On Dec. 7 the German chargé d'affaires von Pilgrim-Baltazzi and the British minister arrived off Bridgetown, and both vessels of war arrived. If a satisfactory reply were not immediately forthcoming the German Government threatened to take measures for the satisfaction of German claims. The English note demanding the immediate satisfaction of British claims was of similar tenor. The German note declared Venezuela’s reply of May 9 relative to claims arising out of the civil wars of 1898 and 1900 to be unsatisfactory, the Venezuelan argument that internal legislation excludes diplomatic intervention to arrange the claims of foreigners being contrary to international law. The treaty with Colombia to which the Venezuelan Government appealed is valid only between Germany and Colombia, and moreover does not exclude diplomacy, and Venezuela herself had made diplomatic agreements with France, Germany, and Spain relative to the payment of claims arising out of revolutions. The decree of Jan. 24, 1901, declaring the national debt as ap prepensible to any public collection, and the recognition of the claims of the two former powers, was a voluntary step. If a satisfactory settlement were not arrived at the claims, the British and German Governments would send 8 gunboats to the port of La Guayra. On Dec. 9 the German war-ship Panther entered the harbor of La Guayra and, in accordance with the request from the fleet went alongside of the four vessels of the Venezuelan navy that were there and de-
manded their surrender. The Venezuelan officers and crews left the vessels, which were then towed outside. The Gen. Crespo, the Totumo, and the Magdalena, of the Court and there all night. The reason given was, they were not sufficiently seaworthy to undertake the voyage to Trinidad alone, while to tow them thither would impede the freedom of passage of the neutral vessels. The German ships Falke and Panther then steamed away to Carupano to seize the Venezuelan vessel that was blockading the mouth of the Orinoco. This blockade the British and German fleet after officially pronouncing it null, before coercive steps were taken in the matter of the claims, by sending war-vessels up the Orinoco river, against which action President Castro formally protested. The representatives of France and Italy joined in the declaration that the blockade was ineffective, but the United States minister declined to identify himself with them in its notice. The President replied to the seizure of the fleet by arresting all the British and German resi- dents in Caracas, and such was the spasm of resentments for the aggressive acts of the two powers that their citizens were for the moment safer in prison than in their homes against the mob which damaged the German legation building and shouting anti-German and anti-British slogans. The Official Gazette ordered the imprisonment of all Britons and Germans in the country, but on the urgent remonstrance of Mr. Bowen he released them on the following day and the next day the British and German vessels returned to their ports. The Ossun, a French steamer that had been chartered by the Venezuelan Government, was the only vessel found at La Guayra that was not sunk by the allies. The Venezuelan flag-ship Bolivar was seized at Port of Spain. On Dec. 10 the troop-ship Zamora was taken, and on Dec. 12 the gunboat Restaurador, formerly the American yacht Atlanta, was seized at Guanta. The ship Topaze at Puerto Cabello was compelled by a mob to lower the British flag. The commander of the British cruiser Charybdis demanded reparations. Before receiving a reply he shelled the forts, which responded feebly. When the guns were silenced a landing party destroyed with dynamite and fire the Libertador Castle and man-slaughtered the crew. The Venezuelans warned all the allies against bombarding the town. The officials of the English harbor corporation at La Guayra were threatened with violence by a mob and also with violence by a body of British marines who lashed the Venezuelan ships and rescued two of them. The British Legation had examined the claims of Italians for compensation and pronounced claims amounting to $300,000 francs to be valid. The Italian colony in Venezuela numbers 7,000 persons. The Venezue- lan Government did not anticipate coercive action from Italy because, in the treaty concluded with that country on June 19, 1861, it is stipu- lated that in case of claims for damages arising out of revolutionary acts Italians shall receive the same treatment as that accorded to Venezue- lans. President Castro, in appealing for the diplomatic intervention of the United States, com- plained that the powers had acted before they had resorted to the Venezuelan courts for a deci- sion on their monetary claims, which were insig- nificant in amount and entirely disproportionate to the efforts made to collect them by force, and because they had proceeded to hasty and violent measures to force the resources of foreign nations were exhausted. Germans who had laid claims before the Venezuelan tribunals have in many cases ob- tained awards. The Venezuelan Government con- tested the right of the German Government under the Naval Reciprocity Law that when the courts of a coun- try are open to claims for damages against the Government, diplomacy shall not be resorted to until the claims have been presented to the courts and final judgment thereon, in case of justice or unusual delay or a violation of inter- national law. This doctrine was accepted by the delegates to the Pan-American Congress at Mex- ico. Another principle of international law that Germany and Great Britain set at naught forbid armed intervention for the collection of public debts or guaranteed interest.

Italy determined to join in the naval hostilities, and sent the cruiser Giovanni Bausan. The Italian minister to Venezuela on Dec. 13 forwarded an ultimatum analogous to those presented by Great Britain and Germany. Italy first proposed to Great Britain and Great Britain to be associated with them in the measures they were about to take, and in any arrangements that might be made, as the claims of Italians were of the same nature as those pressed on behalf of Germans and British. This proposal was favorably received. Commodore Scheder selected La Guayra as the center of the movements of the German ships. Each commander took a different part of the coast and neither was responsible for the acts of the other except when they acted in concert. The German fleet was taken over by Great Britain under the command of Vice-Admiral Douglas was much the stronger, having a tonnage of 25,000 tons and 1,700 available men in the crews. The Italian naval force arrived on Dec. 16. The United States sent to Trinidad two squadrons to observe developments and to be ready to defend American interests or protect American lives and property, consisting of the Kearsarge, Alabama, Massachusetts, Iowa, and Scorpion, under Rear-Admiral Higginson, and the Chicago, Newark, and Eagle, commanded by Rear-Admiral Sumner. After a few days most of the vessels returned to their station in Porto Rico. A wave of patriotic enthusiasm swept over Venez- uela. All citizens fit for military duty enrolled themselves in the militia, even those belonging to the revolutionary party. The people everywhere pledged themselves to buy no British or German goods while the differences remained unsettled and foreign ministers were received with great respect. When the news of the bombardment of Puerto Cabello reached the capital 10,000 men surrounded the Government building claming for arms to repel the invaders. British vessels were sent to support the enrolment in the militia of men between the ages of eighteen and forty-five, and Gen. Ferrer formed an entrenched camp between La Guayra and Caracas, which was occupied by 3,000 troops under the Minister of War and Gen. Modesto Castro. President Castro issued a proclamation granting amnesty to all political offenders and restoring confiscated estates. The Venezuelan consul at Port of Spain in Trinidad closed his office and departed. The German cruiser Panther attempted to enter the harbor of Maracaibo to take out the only war-ship not yet seized, which was moored along the wharf. Gen. Bello, the commandant at the old Spanish castle of San Carlos, fired a warning shot. The German vessel did not go in and take the Venezuelan vessel until the Vineta, Falke, and Panther of the German squadron shelled the fort. The old guns of the Venezuelans responded and did some damage to the nearest German vessel. The vessels deserted, but returned two days later and demolished the fort. The village of San Carlos was destroyed and some of the inhabitants were killed.

On Dec. 12 President C utens proposed to send the German minister to the Venezuelan minister for negotiations.
A blockade of the coast of Venezuela was declared on Dec. 20. The Germans blockaded the port of La Guayra, the Colombian frontier, and the British the strip of coast eastward to the frontier of Demerara. The American merchant steamer Caracas, which had started on a voyage to La Guayra, was permitted to enter the port, but before half the cargo was discharged the German naval authorities on Dec. 23 compelled her to leave. On the same day the British, German, and Italian Cabinets, to which the Venezuelan proposal to arbitrate had been transmitted from Washington with an offer of the good offices of the United States, accepted arbitration in principle. The powers consented to arbitration of their claims by The Hague tribunal, subject to certain conditions which it was first necessary to discuss. When the proposal was first made through Minister Bowen the British and German governments at the suggestion of Germany offered to submit the whole dispute to the arbitration of the President of the United States. President Roosevelt was urged by them to undertake the task, but on Dec. 27 he definitely declined and suggested the International Court of Arbitration at The Hague as the proper tribunal. The German minister at The Hague, Signor Mayor des Planches, the Italian ambassador, Baron Speck von Sternburg, soon arrived to take charge of the German negotiations. The claimants were demanded to amount to 31,600,000 francs. The German claims were 8,750,000 francs, the English 22,500,000 francs. The blockading fleets landed men and seized the custom-houses at Carupano, Cumaná, Guanta, La Guayra, and Puerto Cabello. A large number of merchant vessels belonging to Venezuelans and of cargoes destined for Venezuela were seized by the blockading squadrons, and the captured ships were moored at Margarita island. Italy sent a second ship and undertook the blockade of the coast of Tuscaras and Coro. Mr. Bowes, the British minister at Washington, suggested that the details connected with the claims be settled directly by him as the plenipotentiary of the Venezuelan government, an offer he was accepted. By the exchange of a note, the British, German, and Italian representatives at Washington. This proposal was promptly accepted by the three powers. The exchanges of note of the allied governments were cash payments of their claims of the first line and adequate guarantees for the settlement of the others. Mr. Bowen proposed that all countries have claims against Venezuela should have in the proceeds of the customs duties, which have been the chief source of revenue for the Venezuelan Government, and hence were the only satisfactory guarantee Venezuela could offer. President Castro offered to pledge a sufficient proportion of the customs receipts on condition that all the foreign claims should be settled for $340,000 and $360,000 respectively. England and Italy finally agreed to accept a cash payment of $5,500 each. The German Cabinet insisted on $340,000 and $360,000 respectively. England and Italy still hold out for a percentage of the customs revenue to be reserved for the satisfaction of their claims. The British government, according to the original estimates, was to pay $340,000 and $360,000 respectively. The protocols provide that the blockade shall be lifted immediately. Venezuela shall pay out 30 per cent. of the customs duties of the two ports for the allied governments, which money shall accumulate till the court of The Hague decides the question of preferential treatment and until all claims have been adjudicated, when pro rate payments shall begin and continue monthly. If Venezuela defaults in the payment of one instalment Belgium shall administer the customs at the two ports until all claims as adjusted by mixed tribunals shall be satisfied. Renewal of the Rebellion.—The blockade, which cut off President Castro’s revenue and prevented his getting supplies of ammunition, was the opportunity of the revolutionists, who still maintained a small army in the field under Gen. Rolando and held the Tuy valley. Gen. Matos despatched a new expedition from Curacão to the Gaojira peninsula. Gen. Manuel Antonio Mattos had already expended $2,000,000 in arming, feeding, and paying the army of 10,000 men that took the field in the summer. He had distinguished himself favorably in the government of financial crises as Minister of Finance under President Crespo and President Andrade, and he
denounced the Castro administration as corrupt. President Castro's Government confiscated his large estates and castigates him in the Bank of Venezuela and the Bank of Caracas. After the blockade food rose to high prices and the Government and national bank soon expended all the money that was left and had no means of raising more. For the first time since 1892 the soldiers could neither be paid nor properly fed. Gen. Rolando gathered 1,200 revolutionists at Lezama. Gen. Riera an equal number at Coro, and other bands assembled in the neighborhood of Barquisimeto. Gen. Antonio Fernandez, in command of the revolutionary forces, inflicted a severe defeat at Guatire on the Government troops commanded by Gen. Modesta. President Castro sent with 1,500 Andine troops to check the rebel advance if possible. The coasts of Tucacas and Coro, held by the revolutionists, were not blockaded by the allies, and they were able to import arms and ammunition and other supplies freely after Castro's navy was captured. Some of the generals who had fought for the revolution in the former campaign were recalled by receiving commands in the Venezuelan army.

WASHINGTON. (See under United States.)

WEST AFRICA. The coast of Africa from the southern border of Morocco to the mouth of the Congo has in recent times been occupied by European powers which formerly neglected the defense of their few scattered trading stations. The effective occupation of the coast regions was followed by treaties with the banks of the Shari to establish claims over the interior. At last the whole of the interior of northern Africa between Barbary and the Congo region from the west coast to the western limits of the Egyptian Sudan has been partitioned into spheres of influence. Germany occupied Togoland and Cameroons in 1884 and in the same year France declared a protectorate over the coast between Cameroons and the Congo, having had factories on the Gabun for forty years, and a British protectorate was proclaimed over the region where the Royal Niger Company claimed to have made political treaties with several hundred native chiefs and tribes. The Germans and the French, as well as the English, were active in explorations and scientific missions which had for their object the establishment of treaty relations with the natives of the interior. This era of private expeditions, supported by associations of the advocates of colonial enterprise, was succeeded by one of military operations to make good uncertain claims of protectorates based on treaties with native potentates, and by diplomatic negotiations in the definition of spheres of influence after a number of international incidents which created ill feeling between the nations that were actively engaged in extending their dominions in that part of Africa. The German Hinterland could no longer be applied when the expeditions of rival powers clashed in the far interior of West Africa in the bend of the Niger, on the upper Binue, and in the region of Lake Chad. The French, advancing from Senegal eastward and from the Ivory Coast and Slave Coast northward, later northward from the Congo and southward from Sierra Leone and Senegambia; the Germans, pushing up from Cameroons, endeavoring to establish a foothold on the Binue and Lake Chad, and striving at the same time to establish their influence in the bend of the Niger by occupying the Hinterland of Togoland—all converged toward the same regions, and in the race for the Niger region and the Central Soudan the powers were busily extending their influence, and when military expeditions met in the interior hostile collisions were not always avoided, though they were gazed over by expedient diplomatic explanations. France and Germany first came to an understanding and signed a convention in December, 1885, by which Germany conceded to France the regions inland from the Cameroons east of 15° of east longitude, reserving the southwest coast wested by north latitude down to Lake Chad. In the same year Germany made an agreement with Great Britain and a supplementary one in 1886, abandoning pretensions on the Binue and securing access to Lake Chad and the recognition of rights over Admawa. France arranged a delimitation with the Congo State, in a convention concluded in 1885, supplemented by further arrangements in 1887. The boundary of Portuguese Guinea was settled by a convention concluded by France on May 12, 1886. Germany retired from the contest for the Niger region and the states of the Soudan, being content with a commercial route to Lake Chad. The Anglo-German agreement of August, 1886, defined as the limit between the British and German spheres a line from the Cross river to the Binue east of Yola, fixed by a further agreement on Nov. 15, 1893, at a point 30 miles east of that town. The struggle for the bend of the Niger and the race for Lake Chad was succeeded by an agreement between France and Great Britain. On Aug. 5, 1890, an Anglo-French agreement was reached. This agreement defined the limit between the British and the French spheres of influence on the Niger from Say on the Niger to Barua on Lake Chad drawn in such a manner as to comprise within the sphere of the British Niger Company all that belongs to the Kingdom of Senegal except the Fouta Jallon, and gives to each power access to Lake Chad, but did not decide the fate of the Mohammedan states surrounding that body of water, which then possessed more formidable powers of defense than they had after the conqueror Rabah had overrun these countries; neither did the convention settle the boundaries in the bend of the Niger west of Say, where French and British were busily extending their influence, and the French put a considerable military force into the field to contend with Ahmadu, Samory, and other powerful natives rulers who blocked their progress. In 1889, 1893, and 1895 conventions were signed by France and Great Britain delimiting certain parts of their contiguous possessions in accordance with the advance of effective occupation. The French had not only Senegal as a base but the Ivory Coast, which they occupied in 1893, having had factories on that coast for the forty years. In 1894 the British had signed a treaty and aimed to join this territory, the Ivory Coast, and the Senegal protectorate together, leaving
the British Gold Coast, Sierra Leone, and Gambia
isolated enclaves. To check this plan the British
subsequently occupied the Gold Coast in 1896 and
the Royal Niger Company began to
organize an army. Germany, in February, 1896,
recognized the French claim to Bagirmi and defi-
nitely accepted the Shari as the limit of the Ger-
man sphere in the region of Lake Chad. Political
and military undertakings having exhausted the
resources of the Niger Company and the situa-
tion becoming critical on the frontiers, the Brit-
ish Government bought out the chartered com-
pany, and on June 14, 1898, concluded a more
definite and complete agreement with France,
which after long negotiations over details was
ratified on June 15, 1899. The spheres of France
and Great Britain, both east and west of the
Niger, are delimited in this convention. Be-
 tween the British Gold Coast protectorate and
the French Ivory Coast the line is continued from
the terminal point of the frontier laid down in
the convention of July 21, 1893, which was at
the point on the river Volta where it is inter-
sected by the parallel of 9° of north latitude.
It ascends this river northward to its intersection
by the parallel of 11° of north latitude, then
turns on its left to the confluence of the
Volta and the Shari. The Soudan then continues northward, following the Dalll
Mauri, to a point 100 miles from the city of Bo-
koto, from which it follows the arc of a circle
with that radius eastward round that city on the
north until its second intersection with the paral-
el of 14° of north latitude, whence it runs due
east 70 miles, then south to 15° 20' of north lati-
date, then east again 230 miles, then north to 14°
of north latitude, then east to the meridian that
passes 35° east of the town of Kuka on Lake
Chad, and then follows this meridian to the shari
during the lake, and finally to a point on the
inland line 5 miles below the confluence of the
Faro in a straight line to the intersection of the
parallel of 10° of north latitude with the meridian of
13° of east longitude, and thence to a point
on Lake Chad east of the town of Kuka. The
boundary between German Togoland and Da-
homey, by the agreement of July 23, 1897, be-
tween France and Germany, is the river Mono up
to 7° of north latitude and on the north the paral-
el of 11° of north latitude and the White
Volta as far as 10° of north latitude. In the
Anglo-German negotiations the Salaga country
behind Togoland and the Gold Coast was left
undivided for a long time and was treated as a
neutral zone until an agreement was reached on
November 14, 1900. The boundary of the Dio-
viling line up to 9° of north latitude, the line to
be drawn beyond that point by a mixed com-
mission in such manner as to leave Yendi and
Chakosi on the German and Maupuru and Gam-
baga on the English side. Thus a formal agree-
ment between France and Spain was rati-
fied reducing the area that Spain claimed south
of Morocco, leaving the entire Sahara in the
French sphere, from the western frontier of
Egypt to the Spanish coast strip at Rio de Oro.
In compensation France conceded the Spanish
claim to the coast district on the Bight of Biafra
from the boundary of the German Cameroons to
the Rio Muni, with a boundary inland at 11° 20'
west of Greenwich. In the same agreement France ensured the right of preemption to all
the Spanish territories in West Africa and the
islands adjacent to the coast.
French Possessions.—Including the Sahara,
with an estimated area of 1,544,000 square miles,
the French possessions, stretching from the
Congo and Ubangi to the borders of Algeria,
Tunis, and Tripoli and from the Atlantic to the
Egyptian frontier, have a total area estimated
at 3,060,000 square miles, and an estimated pop-
ulation of 23,380,000. The administration of
French West Africa was reorganized on Jan. 1,
1896. The boundaries of Senegal, the Ivory Coast,
Guinea, French Soudan, Dahomey, and the
Soudan was placed under a military admin-
istration independent of the civil administra-
tion of Senegal, but under the political direc-
tion of the Governor-General of Senegal, who is Gov-
er-General of French West Africa. The colony of
Senegal, where a French settlement has
existed since 1637, now extends inland 900 miles
to within the line of 7° 30' west of Greenwich.
The direct administration of the Governor are the
communes of St. Louis, Dakar, Goree, and Ruf-
isque, which have a total population of 42,000.
Local administrators are placed over 9 circles
which have a population of 61,000. The territory
under immediate French protection and control
has an area of about 1,000,000 square miles, but
the total area of the colony and protectorate is
200,000 square miles, with 3,200,000 inhabitants,
including the new circles of Kayes, Kita, Se-
tadugu, Bamnuko, Segu, Jenne, Nioro, Gumba,
Sokolo, and Bussola. The large effort to obtain
access through their own territory to the mari-
time Niger was frustrated, but the British Gov-
ernment agreed to lease for thirty years to French
Government a piece of land on the right bank of the Niger, between Leala-
aba and the confluence of the Moussa and Niger, and
one on one of the mouths of the Niger and to ex-
clude the territory as regards river navigation and tariff and fiscal
matters to French as to British persons and mer-
chandise. The line between British Nigeria and
German Cameroons is continued from a point on the
Binche 5 miles below the confluence of
the Faro in a straight line to the intersection of the
parallel of 10° of north latitude with the meridian of
13° of east longitude, and thence to a point
on Lake Chad east of the town of Kuka. The
boundary between German Togoland and Da-
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the Spanish territories in West Africa and the
islands adjacent to the coast.
Ciudad Bolivar, and 328,939 kilograms from Maracaibo. There were 1,253,342 kilograms of rubber exported from Ciudad Bolivar, and 43,211 kilograms of tobacco; 18,774 head of cattle from Puerto Cabello and 6,400 from Ciudad Bolivar; 35,189 kilograms of goat- and deer-skins from Ciudad Bolivar, 836,129 kilograms from Maracaibo, and 125,886 kilograms from Maracaibo; 53,982 kilograms of copra from Puerto Cabello; 6,421,530 kilograms of rice; 1,781,612 kilograms of dividivi; 4,099 kilograms of cinchona bark, 30,587 kilograms of copalba, 42,901 kilograms of fish sounds, and 274,533 kilograms of sugar from Maracaibo; and 1,316 kilograms of gold bullion, valued at $380,000, from Ciudad Bolivar. Feathers for millinery are an important article of export. The principal imports are provisions, textiles, hardware, coal, petroleum, timber, and machinery. Coffee is exported to the United States, France, and Germany; cacao to France, Spain, and Germany; hides to the United States; rubber and feathers to Great Britain.

Navigation.—Maracaibo was visited in 1900 by 403 vessels in the foreign trade, Puerto Cabello by 282, La Guayra by 205, Ciudad Bolivar by 267. The merchant marine in 1900 consisted of 18 sailing vessels, 2,836 tons, and 12 steamers, of 2,267 tons.

Cables and Telegraphs.—There are 529 miles of railroads. A new line to connect Yaritagua with Puerto Cabello was contracted for in 1899. The telegraphs have a length of 3,882 miles.

Insurrection.—The revolution that was started in the beginning of 1902 for the overthrow of President Castro was headed by M. Matos, the wealthiest of Venezuelans, who purchased the British steamer Ban Righ, loaded her in Europe with rapid-fire guns for her own armament and field-guns, many thousand rifles, and a vast quantity of ammunition for the army. A large force embarked at Trinidad; the steamer was converted into a warship bristling with guns, her name changed to the Bolivar, and after she had sunk the only serviceable vessel of the Venezuelan navy that Castro sent to capture her, Matos could land his expeditions at any part of the Venezuelan coast that he desired and bring all the supplies he could ever need. Castro had enemies in various parts of the country ready to join in the insurrection. The forces of Matos consisted of 15,000 men, divided into 25 sections. The majority of the leaders of the Government was weak or unpopular, and threatened to advance on Caracas from the Cumana district and from the Colombian border. Revolutionists rose in bands in many places. When the expedition arrived on Jan. 2 and landed 6,000 Mauers the Government force of 500 men at Coro joined the rebel General Urbina, Fernandez, and Garcia. Generals Guzman, Monogros, and Platero, of the revolutionary army, had their way in Carabobo and Guiraico. Generals Batalla and Fernandez Cenko rose against the Government, and the latter twice defeated the Government troops in Carabobo. Gen. Vasquez headed a successful rising at Carupano. The Government troops had difficulty in putting down an insurrection in Maracaibo. The rebels were victorious near Barquisimeto. A severe engagement was fought without result near Uchire. Contributions were levied on foreigners by the insurgents, and the port of Caracas was captured.

The Venezuelan Congress elected Gen. Castro as President for another term of six years to begin on Feb. 20. An invasion from Colombia under Rangel Girardis was checked near Lafrías. President Castro sent troops to meet the revolutionists who laid siege to Barcelona, Carupano, and Cumana and held the port of Tucacas. The revolutionists, who numbered 3,500 men, defeated Gen. Escalante on April 3 near Carupano, where he lost 350 men. On the following day he was attacked and routed near El Pilar. The rebels took Barquisimeto. Gen. Ramon Castillo with 2,200 men marched out against them. He was attacked on April 22 near San Antonio, and fatally wounded in the beginning of the engagement, upon which the newly levied troops of his force deserted to the enemy and the others retreated. The Government forced every able-bodied man into the army. Gen. Vincenzo Gomez led a third army against the rebels at Carupano, which was attacked on May 6 by sea and by land. He also was wounded and his troops were routed on May 6, losing 115 dead and 310 wounded. The Government gunboats shelled the town without the usual notice in spite of the protests of the foreign residents. A new invasion was aided by the Colombians, and 4,000 men crossed the border. The revolutionists compelled a Norwegian steamer to carry troops and munitions from Barancas to Bolivar, and afterward the vessel was attacked and Capt. Melander killed by Government troops. La Guayra was attacked by a band of revolutionists on June 7, and the Government forces shelled them from the forts and the warship Miranda, compelling them to retire. Gen. Matos had his army in the field by this time, fully organized and equipped, and he began a systematic advance on Caracas. In June he issued a proclamation in which he announced a provisional Government, with himself as President, Pedro Ezequiel Rojas as Minister of Foreign Affairs, and Generals Perez and Pedro Ducahne as commanders of the armies in the field. The 30 per cent. duty was declared abolished with regard to West Indian imports. He moved with 3,000 men to Urica, leaving 3,000 still in the State of Bermudes. Coro was held by Vice-President Ayala with a strong force, but on June 20 he capitulated. Insurgents fought the Government troops in the streets of Baranaca early in August, in the face of the President, Gen. Bravo and 60 men. On both sides 8 generals, 23 colonels, and 167 men were killed and many houses were destroyed. Germans, Italians, Britons who were at La Guayra and Puerto Cabello, where the revolutionists were active. The commanders were ordered to send vessels to Barcelona, where the insurgents were sacking the stores of foreign merchants and did not spare the foreign consulates. Ciudad Bolivar was blockaded by Government vessels. Germany, Great Britain, and France protested against the blockade on the ground that it was ineffective. By the middle of August the revolutionary party obtained possession of Puerto Cabello. The Government forces after a bombardment took Carupano and Ciudad Bolivar was next bombarded. The Restaurador advanced into close range before firing, flying the American flag. For this Minister Bowen demanded and received an apology from the Venezuelan Government. On Aug. 22, about 700 rebels entered Carupano and fought all day with 1,000 Government troops under Gen. Velutini. On Aug. 28 the advance guard placed an attempt to take Tagua, but was repelled with a loss of 200 men. The rebellion made progress, however. The German railroad was cut, and 600
soldiers who attempted to reestablish traffic were driven away near Los Teques, which the rebels captured. On Aug. 29 they were joined near there by 1400 rebel soldiers under Gen. Matos long made his headquarters at Barcelona. Insurgents rose in the vicinity of Caracas and had a fight on Sept. 5 with the Government troops. The advanced guard of the revolutionary army, consisting of 4,000 men, under Generals Mendoza, Batalia, and Riera, were met Sept. 11 by 4,100 troops under Gen. Garrido, who had succeeded Gen. Guerra as Minister of War. When the insurgents had taken Angostura and other interior towns the Government authorities took forcible possession of two steamboats of the American company to serve as transports. When 1,100 rebels advanced to Cumana the garrison of 350 men retired. The revolutionists collected the customs at Bolivar, Cumana, Cano, Colorado, Guiria, Coro, and Barcelona. They received a large shipment of Mausers and ammunition and some field-guns from Germany. They cut the English railroad near La Guayra. Wherever the revolutionists held a seaport President Castro declared it closed and proclaimed a blockade. His gunboats were useless for maintaining a blockade of even one port, and the British and German governments refused to recognize any blockade, and their cruisers protected vessels trading with the ports and the Orinoco river. The rebels at Barcelona attempted to force a loan from the American consul, who is a Venezuelan citizen, but desisted when the American naval authorities interfered for his protection. Telegraph communications in the interior were blocked by them since early in the rebellion. The Government arrested the employees of the French Cable Company at Carupano and cut the cable. President Castro issued a proclamation denouncing Gen. Matos as a traitor who offered to hand over the financial administration of the country to foreign capitalists and ordering him to be tried as a private. While Gen. Matos advanced to Camatagua, in the state of Miranda, 50 miles south of Caracas, intending to form a junction with the army of Gen. Luciano Mendoza, who had fled north with about 2000 troops and succeeded in harassing and wearing out Castro's troops, Gen. Mendoza had arrived at Tucuyito with the main body of his troops. Gen. Castro, who was at Ocumare, exclaimed: "Mendoza is withdrawing those that were posted to stop Matos, and with a force of 3,600 men he marched with astonishing celerity to Valencia. Gen. Mendoza thereupon retreated toward Villa de Cura. Valencia was saved from falling into the hands of the insurgents, but the strategem only delayed matters. Gen. Matos, finding the way clear, marched through Ocumare and San Sebastian, hoping to effect a junction with Mendoza near Villa de Cura. Gen. Castro earlier succeeded in joining forces with Gen. Garrido and had an army as strong as that of the veteran Gen. Luciano Mendoza, whom he feared more than Gen. Matos. Gen. Mendoza attacked Castro at La Victoria, and there was savage fighting that lasted a week. Gen. Gomez arrived with reinforcements for Castro on the second day. The wounded perished without care under the tropical sun. The revolutionary army numbered about 8,000 Castro's not more than 4,000. After many hundreds had been killed on both sides Gen. Mendoza on Oct. 17 abandoned his positions and retreated. Gen. Castro himself, with a rifle in his hand, rallied the remaining insurgents, to inspire his men with his own courage and energy. The rebels received reenforcement on the fourth day and completely invested La Victoria, which would have fallen if the Government forces had not received fresh ammunition. Casualty losses were reported to be 1,600 in killed and wounded, and those on the Government side 1,400. The rebels attacked Carupano and retreated after a hard fight. The Government troops still remained at La Victoria with 5,000 men. The revolutionists renewed and renewed the attack. When Vice-President Gomez withdrew all the troops from Caracas, the seat of government was transferred to a provincial capital in the Guacai- puro district. It is the custom of Venezuelans in their civil wars to spare their beautiful capital. The revolutionists had about 10,000 troops cantonned at San Sebastian, San Juan de los Moros, Cua, Ocumara, and Villa de Cura, forming a ring of stations around Caracas. Descensions had greatly reduced Gen. Castro's forces, but he still had a formidable and trustworthy force in his 5,000 Andine troops. The revolutionists succeeded in cutting communications between La Victoria and Caracas and destroying the railroad. They attempted to take Los Teques, but were repelled. Soon after they were placed on the defensive. Gen. Castro, having been reinforced, learned that they and German troops began to press them, and drove them from several of their positions. The rebel troops posted in front of La Victoria were routed and pursued toward Guarico. The troops commanded by Gen. Rieva and Gen. Mendoza dissolved on the approach of the Government troops. The whole organized rebel army broke up into guerrilla bands that disappeared on the appearance of the Government troops. Gen. Matos fled to Curaçao. Gen. Rolando kept 900 men together, with whom he fell back on Lezama. The ministers returned to Caracas. President Castro's troops reoccupied Coro and Cumana. Ciudad Bolivar was still held by Gen. Herrera and Barcelona by Gen. Fabio Guzman. An armistice was declared after Barcelona had been recaptured.

French Claims.—Before the Matos expedition was fitted out the French claim of indemnities for maltreatment and property losses of French citizens during the revolution was brought once more to the attention of President Castro's Government, which was anxious to resume diplomatic relations with France and settle the claims that had existed during 1845, fearing that France would impose duties on cacao by way of reprisal. A protocol was signed relating to the resumption of normal diplomatic intercourse, a treaty of commerce and navigation with the favored-nation clause was negotiated, and an agreement was made referring the claims of French citizens to the arbitration of Señor Leon y Castillo, Spanish ambassador at Paris, acting with one representative of each of the two countries. The protocol was ratified on April 18. Claims to the amount of 2,000,000 francs antedating the last revolution were excluded from the arbitration. The claims to be determined and settled amounted to 54,000,000 francs, including 18,000,000 francs for the railroad running from Maracaibo, which was practically destroyed. It was proposed to assign the receipts of one or two custom-houses to the payment of these debts.

German Claims.—When the Venezuelan Government showed a willingness to settle the French claims, Germany, at the time when the revolutionary preparations were in progress, became very urgent in demanding that the claims of German citizens. There were claims for
square miles and 1,000,000 inhabitants. Porto Novo, the capital, has a population of 50,000. The natives cultivate corn, manioc, and yams and obtain from the forests palm-kernels, cocoonuts, etc. The building of revenue and expenditure in 1894-1896 was £474,206. Abomey, a port having about 15,000 inhabitants, is connected by telegraph with the Niger, and a railroad is being built by a company with Abomey, the capital of the Kingdom of Tonnage. The king was exiled to the French Congo in 1900. The value of imports in 1900 was 15,251,419 francs; exports, 12,755,804 francs. Liquor, cotton goods, and tobacco are the largest imports. The exports of palm-kernels were 6,595,800 francs in value; of palm-oil, 5,352,255 francs. The ports were visited in 1900 by 415 steamers, of 358,404 tons.

British Possessions. The Gold Coast is a Crown colony. The Governor is Major Matthew Nathan. The colony proper has an area of 40,000 square miles, with 1,479,882 inhabitants. The number of Europeans is about 400. There are 11,000 pupils in the missionary schools. The exports are palm-oil, palm-kernels, rubber, and cocoa-nuts. Gold-mines have been opened and a railroad is being built to be worked in Ashanti, which was conquered and made a British protectorate in 1896. The northern territories of Adansi and Ashanti and the part of the neutral zone which the Anglo-German agreement of Nov. 14, 1896, falls to the share of Great Britain, which is to be marked out by a joint boundary commission, are under the direction of a Commissioner, Col. A. H. Morris. The revenue of the colony in 1899 was £322,500; expenditure, £306,600; imports, £1,323,300; exports, £1,117,140; tonnage entered and cleared, 1,250,410 tons. The exports of rubber were £55,731; of palm-oil, £183,204; of kernels, £106,158; of gold dust, £61,300; of cocoa-nuts, £27,020. The northern territories have an area of 50,000 square miles. Many mining concessions have been taken out, and companies have been floated that had no auriferous deposits that can be made profitable. This circumstance and the lack of transportation have militated against the progress of gold-mining. The railroad has been built as far as the Offin river. The inhabitants furnished material for soldiers and many are recruited for the British West African regiments. Fobia is a district that both Germany and Great Britain claim, and both had military to war until the boundary commission came. The western boundary of the Gold Coast was delimited by an Anglo-German Commission in the fall of 1902.

Lagos, another Crown colony, is administered by a Governor, Sir William McGregor. It has an area of 965 square miles and 85,807 inhabitants. The Government maintains 31 schools, with 3,371 pupils. Palm-oil, palm-kernels, ivory, gum copal, cotton, rubber, cacao, and coffee are exported, and spirits, cotton cloth, tobacco, and hardware are imported. A railroad was built from Lagos to Abeokuta, 60 miles, and the extension to Ibadan, 66 miles, is now completed. The Lagos protectorate has an area of 21,000 square miles and a population of about 3,000,000. It includes all the towns belonging to Ibadan and Oyo, Ikirun, and all the Yoruba country. The revenue of the colony in 1899 was £192,790; expenditure, £223,290; imports, £206,600; exports, £115,290. tonnage entered and cleared, 963,828 tons. The exports of palm-oil were £168,458 in value; of palm-kernels, £412,817; of rubber, £160,315. Gambia is governed by an Administrator, Sir George C. Denton. The colony has an area of 69 square miles with 13,456 inhabitants, of whom 62 are Europeans. There are 6 schools, with 883 pupils. The main export is earthnuts. Minor exports are hides, beeswax, cotton, corn, rice, and rubber. Colonial has an area of 2,700 square miles, with about 200,000 inhabitants. The revenue of the colony in 1901 was £43,728; expenditure, £48,518; imports, £46,646; exports, £233,617, including £65,000 worth of indigo and cleared, 284,635 tons. The Gambia protectorate has 90,000. The Jolabs, a wild tribe near the French frontier, murdered two commissioners and some of the police. An expedition was sent to punish them by burning their towns and seizing their grain and cattle. The people of this and other protectorates are rapidly becoming converted to Mohammedanism, even some who had previously embraced Christianity. The spread of Mohammedanism causes a great decline in the spirit trade. The Marabouts, as the native Mohammedans are called, form nearly 75 per cent of the population. Sierra Leone has an area of about 4,000 square miles, with 74,635 inhabitants, of whom 224 are Europeans. Freetown, the capital, in which there is 30,033 inhabitants, is a fortified naval station and the headquarters of the British forces in West Africa, consisting of a West India regiment of 800 men and a West African regiment raised in 1898, besides engineers and artillery. There is also an armistice constabulary of 600 men for frontier defense. The exports are palm-oil, palm-kernels, benni-seed, earthnut-kola, rubber, gum copal, and hides. A railroad from Freetown to Rotofunk, 60 miles, is being carried farther to Bo, 80 miles. The revenue of the colony in 1899 was £168,380; expenditure, £145,090; imports, £289,810; exports, £336,910. The Sierra Leone protectorate has an extent of about 30,000 square miles, with about 357,000 inhabitants. Nigeria is an area of about 40,000 square miles and a population estimated at 25,000,000 to 40,000,000. It comprises Benin, Ilorin, and the coast region formerly called the Olu Rivers protectorate and the regions on the Niger and the Benue that were the field of the commercial operations of the Royal Niger Company. Founded by Sir George Goldie in 1882, and of the political activity of that company were merged this extensive, populous, and productive country to Great Britain. British protectorates over the regions were proclaimed in 1884 and 1887, and in 1889 the Niger Company surrendered its charter and handed over the administration to the Imperial Government. The territories south of a line drawn from Owo on the Lagos frontier through Idya on the Niger to Ashakon on the frontier of the Cameroons, most of which formed the Niger Coast protectorate that was not controlled by the Royal Niger Company, were added to Nigeria, but are still administered separately from the northern protectorate. A part of the lower Niger region was added to Lagos. The revenues collected from imports and exports in Lagos and Southern Nigeria will be divided with Northern Nigeria, which has no present source of revenue. In 1901 the revenue amounted to £280,984, of which £257,472 came from customs. The expenditure was £264,143. The imports were £1,199,690, and of exports £1,166,145. The tonnage entered and cleared was 550,681 tons. Southern Nigeria is thickly inhabited by pagan
tribes. The products are palm-oil, palm-kernels, ivory, rubber, ebony, camwood, indigo, gums, hardwood, and hides. Cotton cloth, spirits, hardware, tobacco, gunpowder, implements, pottery, provisions, and brass and copper rod are the chief imports. A military force of 1,060 native troops is maintained. The number of Europeans in 1900 was 398. Custom-houses are established at the ports of Wari, Burutu, Akassa, Brass, New Calabar, Bony, Opobo, and Old Calabar. The British Government has advanced £45,000 for harbor improvements. The High Commissioner for Southern Nigeria is Sir R. D. L. Moor. The fetish-worshipping Aros were thoroughly subdued early in 1902 by a strong expedition. The majority of the chiefs made their submission without fighting, and markets were established in their towns protected by military posts. Those who resisted fought stubbornly, and inflicted considerable losses on the columns of native soldiers. Aro Caliva, the center of fetish worship for Southern Nigeria, was made a British post. The inhabitants were set to work building roads through the country.

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experimental station. The natives barter rubber, groundnuts, and cacao. The German Cameroon Company has undertaken to develop 34,000 square miles in the interior. The revenue and expenditure for 1903 balance at 4,236,600 marks. The imperial contribution is 2,238,100 marks. The imports in 1899 amounted to 11,333,200 marks; exports to 4,840,500 marks, including rubber for 1,988,000 marks, palm-kernels for 1,265,000 marks, palm-oil for 850,000 marks, ivory for 604,000 marks, and cacao for 192,000 marks. The ports were visited by 66 vessels, of 81,991 tons. The German Government is carrying on experiments in the cultivation of cotton in both East Africa and West Africa, and has engaged American negroes as expert instructors to teach the natives. The traders who bartered European goods for palm-oil, palm-kernels, and rubber used to set an enormous price on the former, and thereby made much money. The planters who came to the laborers 8 marks a month and a dwelling. When German money got into circulation the wages would buy little clothing and other European articles, and therefore they established stores to furnish the laborers with what they could not get in those prevailing in Europe. Some of the trading firms established plantations, and through this circumstance there was a degree of accommodation. Still there has been much antagonism between the traders and the planters. The missionaries, who also carry on trade, have revived the attacks on the planters, whose enterprises they think ought to be replaced by independent cultivation by the natives. Wages have risen to 12 or 15 marks a month, but still the lot of the laborers is considered unsatisfactory and the colonial officials are accused of favoring the owners of the great plantations on the slopes of the Cameroons mountains and countenancing the oppression of the indigenous population. Domestic slavery in Togoland and Cameroon is being gradually abolished, children of slaves being free in the former protectorate and children of free in the latter, and children of half free persons entirely free. The bonds of the sale or exchange of house slaves are prohibited. The German planters have been most successful in raising cacao. The planters have colonies of negroes set up for their profit, but the result has been to work without any further rise in wages by methods described as patriarchal, though the friends of the blacks consider it a kind of slavery. A new railroad will be started by the railroad from Victoria to Lisoka. The Germans in the winter of 1901 undertook an expedition into Adamawa. They encountered the resistance of the inhabitants, and in consequence of this Lieut.-Col. Pavel, commanding the colonial troops, marched against the Bangwa, Bandeng, and Bafut tribes and reduced them to submission. Military stations were established at Buea and Banyo and at Garva on the Benue. In the capture of the Sultan of Banyo Lieut.-Col. Nolte was mortally wounded. From here an exploratory expedition was undertaken to Lake Chad. Hostilities again resulted, and in the end the whole of German Adamawa up to Lake Chad was brought under German rule. A new expedition to promote the commercial development of the country started in the summer from the mouth of the Niger, where the Germans established a base of supplies. The jealousy of German and French enterprises in the Togo and the idea that the Togolese formerly displayed has disappeared since the boundaries of the different spheres of interest have been sufficiently established, and each nation helps the others in extending commerce and civilization to Lake Chad. The Italian expedition was killed by the natives in the German territory before German authority was established there, and they crossed German territory to attack Fadiliah in British Bornu. A French post was established in the German sphere until the Germans occupied the country.

WEST INDIES. The important islands of the West Indies, now freed from European rule, are described elsewhere (see CUBA, HAITI, PORTO RICO, SANTO DOMINGO). The British colonies remain intact, but the right of self-government has been curtailed in several of them. Denmark is negotiating for the transfer of the Danish Antilles to the United States. The French colonies have suffered from a volcanic eruption which destroyed the chief town of Martinique.

British Colonies. The island of Jamaica has an area of 4,200 square miles and Turks and Caicos and smaller islands attached to Jamaica have an area of 224 square miles. The population of Jamaica is 745,104, of whom only 17,092 are whites. Kingston, the capital, has 46,542 inhabitants. There were 14,856 East Indians in the colony in 1899, of whom 1,683 were under indentures. The number of deaths and births was 31,259; of deaths, 16,880. There were 746 Government schools with 98,588 pupils on the rolls in 1900. There were 178,667 acres tilled in 1900 and 379,256 acres of hogsheads of sugar, 31,616 acres of coffee, 24,665 acres of bananas, 27,543 acres of coconut palms, 12,382 acres of corn, 430 acres of cacao, 1,815 acres of ground provisions, 85,416 acres of guinea grass, 15,103 acres of pasture, 353,588 acres of pasture and pimento, 25,620 acres of pimento, 172 acres. The Governor is Sir Augustus Hemming. The Legislative Council consists of the Governor, 5 official members, 10 nominated members, and 14 members elected for five years. The revenue for the year ending March 31, 1900, was £906,037, and expenditure £217,683. Of the revenue £340,617 came from customs. The principal expenditures were £111,700 for debt charges and £63,720 for police. The regular forces in Jamaica in 1900 numbered 1,739 officers and men. There were 12 ships of the British navy on the North American and West Indian station. The public debt of the colony, including guaranteed debts, amounted in 1900 to £3,824,782. The value of all imports in 1900 in London, £1,722,069; exports, £1,707,077. The imports of textiles were £167,302; of flour, £133,306; of rice, £44,745; of exports of sugar, £165,941; of rum, £132,124; of coffee, £38,485; of bananas, £619,636; of oranges, £118,473; of spices, £110,645; of woods, £117,096. The tonnage entered and cleared was 1,742,224 tons in 1900. The registered shipping of the colony comprised 145 sailing vessels, of 8,21 tons. There are 9 railroads having a total length of 185 miles; receipts in 1901 were £109,130, and expenses £36,482; the number of passengers carried was 381,468. There are 843 miles of telegraph lines and 154 miles of telephones. The number of telegrams sent in the year ending March 31, 1901, was 85,052; receipts £4,715; expenses £7,426. The post-office transmitted 5,238,083 letters and postal cards and 1,178,576 telegrams. Previous to 1889 the 14 elected members of the Legislative Council exceeded in number the official and nominated members. Sir David Barbour, who examined into the financial condition of the colony, recommended the appointment of additional members so as to give the Government a majority. When the elections of 1901 were held the elected members refused to act, but the Government carried through the measures deemed necessary for restoring the financial equilibrium, and then the additional
members were withdrawn. The Colonial Secre-
tary again asked in to resort to such a temporary expedient, directed the Govern-
or to appoint the 4 additional nominated members permanently with a right to vote on any question that the Governor pronounces to be of paramount importance. The representative members, thus stripped of their legislative powers, have ever since protested in the Council and have petitioned the British Government to restore the old Constitu-
tion. Mr. Chamberlain declines to sanction any change until existing conditions have had a fair trial and have by common consent been found wanting. No question has yet arisen in the Coun-
cil on which the elective members have been unan-
imous in their opposition to the Government ne-
ceessitating its being declared of paramount im-
portance by the Governor. The change in the Constitution secures government by white men, in
which the vast majority of the colored population acquiesce. Householders who pay £1 a year in
rates, alone qualified to vote, and only a part of the qualified do vote. In January, 1902, the elected members sent a petition to Mr. Chamberlain setting forth that the present system is inadequate and asking for a re-
turn to the system by which the representative members have a normal majority; in this event they would agree to an alteration in the order in Council providing that when the Governor de-
clares a matter to be of paramount importance the elected members shall not vote. The financial difficulties of the Government were acute in the budgeting for 1902. The situation was one of extreme depression, although the elements of prosperity were at work. Additional taxes were imposed to avert a deficit. These could not be collected, and the Government drew the con-
clusion that the limit of taxation had been reached.

An outbreak occurred at Montego, on the north side of the island. A mob overpowered the police and terrorized the town on April 5. On April 6 the police killed a citizen, after which a score of police-
men were badly injured and troops were sent for. The withdrawal of constitutional privileges by Mr. Chamberlain and the alteration of the inci-
cidence of taxation were the reasons given for the rioting, which was preceded by political meetings and meetings of the influential people of the island refused to pay the taxes, after which the Government repealed the obnoxious tax law after prosecuting many persons for non-pay-
ment. Riots occurred in many localities, such as Sandys and other places. Previous to and leading up to the outbreak of dissatisfaction the elected members of the Legislative Council proposed reductions in salaries and other expenditures to balance the budget. Acting-Gov. Olivier would not accept any of the proposed reductions, whereupon the elected members, believing their presence in the Council unwise, and not wishing to accept any responsibil-
ities for the estimates, decided to absent themselves until they were passed.

The Government passed a bill to guarantee loans for the erection of central sugar factories. Of the advance of £250,000 by the British Parlia-
ment to enable embarrassed West Indian sugar-
planters to continue cultivation and pay wages until the European sugar bounties are abolished in the fall of 1903, only £10,000 were assigned to Jamaica. Thrice this sum was applied for at the prescribed interest rate of 6 per cent. per annum, and the Legislative Council failed to advance the difference out of the island revenues. The fruit season of 1902 was good, and the Government rev-
ences and the trade of the island in the course of

the year showed a remarkable improvement. In
stead of a deficit of £170,000 for the fiscal year ending June 30, 1902, the tour-
ists from England and the United States brought much money into the island. There was an in-
crease of 89 per cent. in coffee exports, 39 per cent. in pimento, 36 per cent. in bananas, 54 per cent. in oranges, 47 per cent. in coconuts, and 19 per cent. in.
dywoods. The company which established a direct steamship line from Great Britain changed the distributing port for fruit from Bristol to Manchester, and placed the business in Jamaica in the hands of the American company that raises and exports bananas to the United States, the picking, sorting, and packing of fruit under the supervision of its own agents having been so im-
perfectly done that the losses on spoiled cargoes and unmarketable shipments cost the total profits on fruit to nothing. A reciprocity treaty was made between the United States and Jamaica, Turks, and Caicos Islands, and British Guiana.

Turks and Caicos Islands, having an area of 165 square miles, had in 1901 a population of 5,350, of whom 2,464 were males and 2,886 females. About 1,500,000 bushels of salt are exported every year to the United States. The Com-
missioner is William Douglas Young. The Cay-
man Islands in 1901 had 4,322 inhabitants, compris-
ing 1,904 males and 2,418 females. The Mo-
rant and Pedro Cays are also dependencies of
Jamaica. The imports of the Turks Islands in
1900 were valued at £29,564; exports, £24,584;
tonnage entered and cleared, 280,639 tons.

The Leeward Islands had a total area of 701
square miles, with 127,434 inhabitants in 1901. There were 114 Government schools in 1900, with 24,974 pupils. Sugar and molasses are still the principal products of the islands, though fruits and other products have been planted on some of them. The Governor is Henry Moore Jackson. The islands are divided administratively into the presidencies of Antigua, with Barbuda and Redondia; St. Kitts, with Nevis and Anguilla; Do-
minica, Montserrat, and the Virgin Islands. The Legislative Council consists of 8 nominated mem-
ers and 3 members of the local legislative councils of St. Kitts and Nevis, Antigua and Dominica. The elective element in the Legislatures of Antigua and Dominica was abolished in 1888, when the Imperial Government contributed money to aid those islands in their financial difficulties.

Antigua has an area of 108 square miles and Barbuda and Redonda a total of 62 square miles. The population of these islands declined from 36,819 in 1891 to 34,971 in 1901. St. John, in Antigua, the capital of the colony, had 9,282 inhabitants in 1901. Sugar and pineapples are the chief products. Steamers run to New York, Canadian ports, and England. The local revenue in 1900 was £42,652; expenditure, £40,435. The receipts from customs were £23,081. The value of imports in 1900 was £125,304; ex-
ports, £111,849. The tonnage entered and cleared was 451,592 tons. The debt of the island is £137,071.

The Virgin Islands have an area of 58 square miles, with 4,908 inhabitants in 1901, compared with 4,839 in 1891. Sugar and cotton are grown by the colored people, who own their small hold-
ings. The local revenue in 1900 was £22,137; ex-
penditure, £21,979; imports, £3,387; exports, £2,812; tonnage entered and cleared, 12,076.

St. Kitts is 63 square miles in extent, with 29,782 inhabitants in 1901, having declined from 30,876 in 1891. Nevis, 50 square miles in extent, declined in population from 13,087 to 12,774. An-
guillia, 35 square miles, increased in population from 3,996 to 3,860. Anguilla grows vegetables and produces salt.

The revenue of the presidency in 1800 was £209,904: expenditure, £43,064; debt, £73,350; imports, £138,635; exports, £108,753; tonnage entered and cleared, 252,213 tons.

Dominica has an area of 291 square miles. The population increased from 28,841 in 1891 to 28,804 in 1901. The products are Liberian coffee, fruits, cacao, limes, and sugar. The revenue in 1900 was £28,113; expenditure, £26,780; debt, £70,900; imports, £80,144; exports, £98,842; tonnage entered and cleared, 467,880 tons.

Montserrat has an area of 32 square miles. The population increased from 11,762 in 1891 to 12,215 in 1901. The products are coffee, sugar, cacao, arrowroot, and lime-juice. The revenue in 1900 was £26,804; expenditure, £29,597; debt, £11,400; customs receipts, £4,958; imports, £36,911; exports, £8,158; tonnage entered and cleared, 198,730 tons.

The imports of cotton goods into the Leeward Islands in 1900 were £84,677; of flour, £51,722; of fish, £90,503. The expenditure on public works was £27,225; on police, £10,451; debt charges, £10,451.

Trinidad has an area of 1,754 square miles. The population in 1901 was 253,230. Port of Spain, the capital, has 55,000 inhabitants. The dependent districts of Tobago has an area of 114 square miles and 18,750 inhabitants. The people of both islands are mostly of mixed blood. French, Spanish, Corsican, Venezuelan, Portuguese, and British blood have intermingled. Trinidad, at that time, was a British possession, and the negro slave population was once large. The present population comprises 89,178 Roman Catholics, 74,649 Anglicans, 26,771 other Christians, and about 78,000 East Indians. The number of marriages in 1900 was 1,081; of births, 10,021; of deaths, 8,441. The area under sugar-cane in 1900 was 1,500 acres; under cacao, 150,860 acres; under coffee, 3,960 acres; under ground provisions, 34,400 acres; under coconut-palms, 11,200 acres; in pasture, 15,000 acres. From the pitch lake in the center of Trinidad 158,750 tons of asphalt were exported in 1900. There are 49 miles of railroad and 690 miles of telegraphs. In Tobago, which is often visited by tourists from the United States and Great Britain, cotton and tobacco are cultivated. The sugar industry has been discouraged and repressed.

The revenue of Trinidad and Tobago for the year ending June 30, 1900, was £261,874, and expenditure £230,290. The revenue from customs was £231,841. The expenditure on public works was £37,501; on police, £46,706; debt charges, £50,623; amount of public debt, £918,473. The value of imports in 1900 was £25,500,538; exports, £2,348,424. The imports of flour were £126,270; of textile goods, £381,106; of rice, £11,714; of machinery and hardware, £154,744; exports of sugar, £352,292; of cacao, £979,672; of asphalt, £175,079; of hides, £108,931; of rubber, £203,101. The tonnage entered and cleared was 1,178,494 tons.

The Governor of Trinidad in 1902 was Sir Cornelius Alfred Moloney. The Legislative Council consists of 9 official and 11 appointed non-official members. Tobago was made a ward of Trinidad on Jan. 1, 1890.

The Windward Islands have a common Governor, Sir Robert Baxter Llewelyn, but each island has its Legislative Council, containing official members and nominated non-official members. Grenada has an area of 133 square miles, with 65,523 inhabitants. The island is 21 miles long and 9,529 square. Pimento, cacao, spices, coffee, and sugar are the chief products. The island of Carriacou, one of the Grenadines attached to Grenada, has a population of 6,000.

St. Vincent has an area of 132 square miles and 41,054 inhabitants, of whom 2,445 are whites. Kingstown, the capital, has 4,547 inhabitants. Sugar, rum, arrowroot, and spices are produced. The northern end of the island was devastated in 1902 by an eruption of La Soufrière and 1,800 people perished, while 6,000 were made destitute.

St. Lucia has an area of 223 square miles, with 49,865 inhabitants. The town of Castries has 7,910. The number of births in 1900 was 1,995; of deaths, 1,067. The main products are sugar, rum, logwood, and cacao.

The revenue of St. Lucia in 1900 was £70,105, of which customs produced £30,860; expenditure, £64,750; of which £7,047 went for public works, £19,177 for debt charges; public debt, £176,639; imports, £403,593, of which £30,291 represent cotton goods; exports, £210,881, of which £23,478 represent sugar and £28,247 cacao; tonnage entered and cleared, 1,841,593 tons.

The revenue of St. Vincent was £27,674, of which customs produced £15,032; expenditure, £36,121; of which £21,432 were spent on public works; debt, £14,470; imports, £98,561; exports, £100,327; tonnage entered and cleared, 286,712 tons.

The revenue of Grenada in 1900 was £70,363, of which £36,684 came from customs; expenditure, £62,718; of which public works took £31,169; public debt, £127,570; imports, £232,780; exports, £311,681, of which £290,831 represent cacao; tonnage entered and cleared, 439,000 tons.

Barbados has an area of 166 square miles and a population estimated at 185,000. The number of births in 1900 was 7,257; of deaths, 4,893. The Governor is Sir Frederick Mitchell Hodgson. There were 196 elementary schools with 13,706 pupils in 1900. There are about 30,000 acres in sugar, yielding 50,571 bagasse in 1900. The export of glance pitch in 1900 was 1,120 tons valued at £6,162. About 1,000 men and 250 boats are engaged in fishing, and the annual value of the catch is £21,700. The shipping of the colony in 1900 consisted of 49 miles of railroad and an aggregate tonnage of 6,788 tons. There are 24 miles of railroad and 635 miles of telephone-line. The revenue in 1900 was £185,475, of which £103,296 was spent on public works, £182,866, of which £22,712 were spent on police, £9,677 on public works, and £19,497 on debt charges. The amount of the debt was £416,830. The value of imports in 1900 was £2,145,252, of which £1,800,987 were for textiles, £67,223 for flour, £84,412 for rice, and £10,677 for fish. The exports were valued at £699,011, of which £599,706 represent sugar and £148,305 molasses. 

The Bahamas, consisting of 20 inhabited islands, besides many which are uninhabited, off the southeast coast of Florida, have an area of 4,450 square miles, with a population in 1901 of 53,735. The number of births in 1900 was 2,030; deaths, 1,234. There were 43 Government schools with 5,776 pupils enrolled. Pineapples, oranges, and grapes are grown for export and the cultivation of sial fiber is increasing. The area planted being 22,341 acres in the beginning of 1901. Sponges, shells, pearls, and ambergris are valued sea products.

The Governor in 1902 was Sir Gilbert T. Carter. The revenue in 1900 amounted to £78,800, of which £67,092 came from customs; expenditure, £29,227; 41 schools, with 1,111 pupils entered and cleared, £6,164 for debt, and £6,933 for police. The amount of the debt was £112,226. The value
of imports in 1900 was £335,269, of which £265,526 represent textiles and £29,264 flour; exports, £237,232, of which £104,219 represent sponges, and £133,013 meat and fish. Tonnage entered and cleared, 1,133,866 tons.

The revenues of all the British West Indian colonies in 1900 amounted to £2,133,955, against £1,969,861 in 1899 and £1,898,253 in 1898; expenditures amounted to £2,117,171, against £1,974,259 in 1899 and £1,904,369 in 1898. The imports of all the islands made the sum of £6,379, 647 in 1900, against £6,706,142 in 1899, and £6,323,413 in 1898; exports amounted to £2,360,344, against £2,629,454 in 1899 and £2,657,391 in 1898. The tonnage entered and cleared in all British West Indian ports was 9,910,300 tons in 1900, against 9,155,155 tons in 1899. As a result of the report of the Royal Commission appointed to inquire into the condition of the West Indian sugar-growing colonies, to the effect that the sugar industry was in danger of great reduction, and even of extinction in some islands from the competition of bounty-fed beet-sugar, and that its total or partial extinction would reduce the revenues so that in many cases they would be insufficient to meet the cost of administration, the British Parliament in 1899 authorized advances to the government of the British colonies amounting to £263,000, distributed as follows: Jamaica, £150,000 in aid of revenue and £203,000 for public works and railroads; Trinidad, £50,000 for roads and public works; Barbados, £50,000 as relief from the effects of the hurricane of 1898; St. Vincent, a hurricane loan of £25,000. Other assistance was given to the islands.

French Colonies.—The colony of Guadeloupe with its dependencies has an area of 688 square miles and a population in 1901 of 172,097. The 2 islands divided by a narrow channel which form the colony of Guadeloupe proper have an area of 383 square miles. The dependent islands are Marie Galante, Les Saints, Desirade, St. Barthélémy, and St. Martin. The population includes 15,276 East Indian coolies. A lyceum with 288 pupils and a female college with 134 pupils are the superior schools, and there are 101 elementary schools with 3,973 pupils. Pointe à Pitre, the principal town, has 16,506 inhabitants; Bassée Terre, the capital, 7,838. The revenue in 1900 was £1,620,581 francs, and expenditure £1,737,280 francs. The debt is 1,200,000 francs. The garrison consists of 170 French soldiers. The Governor in 1902 was M. Merlin. The members of the Legislative Council are elected by the people. Sugar was grown on 22,740 hectares in 1901, coffee on 5,251 hectares, cacao on 2,333 hectares. The exports of sugar in 1900 were 39,390 tons; coffee, 1,987,000 pounds; of cacao, 915,530 pounds. Bananas, sweet potatoes, manioc, corn, and vegetables are the food crops, and tobacco is raised for local consumption. The imports in 1899 were valued at 19,157,751 francs, of which 13,286,000 francs were special imports from France; exports at 18,707,558 francs, of which 11,622,000 francs were special exports to France. The imports from France for home consumption in 1900 were only 9,710,000 francs; exports to France, 10,559,000 francs. The number of vessels that visited Pointe à Pitre in 1899 was 438, of 291,300 tons mostly French and English steamers that make regular trips between European and West Indian ports.

The island of Martinique has an area of 380 square miles, with 180,000 inhabitants in 1901. There is an elective Legislative Council. The Governor in 1902 was L. Mouttet. The population includes 1,307 persons born in France, 4,065 East Indians, 432 Chinese, and 5,371 African immigrants. There is a law school with 17 students, 3 secondary schools with 745 pupils, a normal school, and 152 elementary schools with 11,986 pupils. The military force consists of 1,180 French soldiers. St. Pierre, the chief seaport, had 25,792 inhabitants in 1901; Fort de France, 17,274. Sugar, coffee, cacao, tobacco, and cotton are the chief products. The value of imports in 1900 was 24,929,548 francs, of which 10,720,063 francs came from France, 1,706,338 francs from French colonies, and 12,462,947 francs from foreign countries. The exports were valued at 27,161,800 francs, of which 24,735,093 francs went to France, 969,963 francs to French colonies, and 1,425,932 francs to foreign countries. The tonnage entered in 1899 was 318,500; cleared, 313,540. French, American, and British steamers visit the island regularly. The local revenue in 1900 was 5,729,793 francs; the expenditure of France in 1902 was 3,135,518 francs; debt, 1,490,000 francs and an annual remission of 30,000 francs. The eruptions of Mont Pelée in 1902 caused the death of 35,000 persons and left 50,000 homeless and destitute. The relief sent from the United States, France, and other European nations enabled the colony to survive the disaster. St. Pierre, which was effaced, was the largest town in the French islands and one of the prettiest in the West Indies. An area of 30 square miles was covered by the eruption. (See Earthquakes and Volcanoes.)

Dutch Colony.—The Netherlands has in the West Indies the colony of Curacoa, consisting of the island of that name, Bonaira, and the islands of St. Martin, St. Eustache, and Saba. Curacao, area 210 square miles, had 31,119 inhabitants on Dec. 31, 1899; Bonaire, area 95 square miles, had 4,726; Aruba, area 89 square miles, had 9,591; St. Martin, area 17 square miles, had 3,485; St. Eustache, area 7 square miles, had 1,383; Saba, area 5 square miles, had 2,189. The members of the Colonial Council are appointed. The Governor in 1902 was J. O. de Jong van Beek en Donk. There are 33 schools with 5,460 pupils. The revenue for 1901, derived from import and export duties, excises, land taxation, and indirect taxes, was estimated at 602,000 guilders and expenditure at 700,000 guilders. The Dutch garrison in 1900 consisted of 9 officers and 175 soldiers, the militia of 26 officers and 1,200 men in 1899, valued at 1,925,917 guilders. The chief products are corn, beans, cattle, salt, and lime. The ports were visited in 1899 by 2,455 vessels, of 480,585 tons.

Danish Colony.—The Danish Antilles are the islands of Santa Cruz, St. Thomas, and St. John, having a total area of 138 square miles and 30,504 inhabitants. The Governor in the beginning of 1902 was Col. C. E. von Hedemann. The value of imports in 1900 was 86,000 kroner; exports, 59,000 kroner. Sugar and rum are the chief products.

After long negotiations, a treaty for the sale of the islands to the United States was signed on Jan. 24, 1902. It was ratified by the United States Senate on Feb. 17, 1902. The Danish Landsting rejected the treaty on May 16. The United States proposed a prolongation of the period of ratification, and Denmark assented. Half the members of the Landsting were removed by election, and the treaty came before the body again and was once more rejected by a small majority on Oct. 22. In November the Government appointed a commission to go to the Danish West Indies in order to study what can be done.
for the economic development of the islands. Although they have cost the Danish Government $200,000 a year, the United States agreed to pay $5,000,000 for them.

**WEST VIRGINIA.** (See under United States.)

**WIRELESS TELEGRAPHY.** The continued development and improvement of wireless communication (see Annual for 1909) seemed peculiarly auspicious as we neared the commercial utilization of this great discovery, until in the latter part of 1901, and again in 1902, Guglielmo Marconi, who since 1897 has been most usually associated in the public mind with the subject, demonstrated by successful experiment the possibility of transatlantic telegraphy without wires.

In December, 1901, Mr. Marconi sailed for Newfoundland in order to conduct his first experiments in transatlantic wireless telegraphy, and set up his temporary station on Signal Hill, at the entrance of St. John's harbor. Previous to leaving England he had arranged with his operators at the Poldhu station, upon receiving instructions, to send out daily, from 3 to 6 P.M. Greenwich time or 11 A.M. St. John's time) the letter S of the Morse code (...) as a signal. Upon his arrival he at once sent up balloons and kites to which were attached the aerial electrodes of his receiving apparatus. At the beginning of the experiments his first balloon broke away, and afterward he used only the kites. One of these sent up Dec. 12 to a height of 400 feet remained there four hours. The signals were received from Poldhu and plainly distinguished, repeated at intervals, beginning at 12:30 P.M. and lasting irregularly for three minutes; resuming at 1:10, and resuming at 2:20 for shorter intervals, in all 25 times.

As soon as his success was announced the Anglo-American Cable Company, which holds a monopoly from the Newfoundland Government, declared that it would enforce its rights, and he was compelled to go elsewhere to establish a permanent station. He finally chose Table Head, a bleak promontory east of Glace Bay, Cape Breton Island, and upon the assurance of the cooperation of the Canadian and Nova Scotian governments at once began the erection of a station similar to that at Southport, Cape Cod, Mass., and later chosen for the plan of the new station at Poldhu. In general they consist of 4 square wooden towers, 28 feet across at the base, 9 to 11 feet across at the top, and 250 feet high. The towers stand at the corners of a square, whose sides are 210 feet long. Each one is cross-braced with steel-wire rope. Then all 4 are connected with each other by diagonal stays. Finally, to render the structure still more rigid and windproof, stout cables are run up over the tops of each pair of towers on all sides, and secured to anchorages in the earth. From each of the 4 horizontal bridges which connect the tops of the towers are suspended 50 copper cables. The cables are composed of 7 strands, an eighth of an inch in diameter, tightly twisted together. The reason for using many fine strands instead of a few large rods is to secure a larger amount of surface for a given amount of copper. It will thus be seen that the utilization of the vertical wire of the original Marconi experiments has now been enormously multiplied. Since the length of a wave is four times the length of the vertical wire, or antenna, waves from 800 feet (or a sixth of a mile) long should be developed. This corresponds to a frequency of about 1,100,000 a second. The 50 cables of each of the 4 groups converge a little as they go downward, and also incline slightly toward the center of the quadruplex edifice. The lower ends, therefore, are arranged along the sides of a square much smaller than that formed by their supports at the top, and terminate in the operating-room of the station.

The distance from St. John's to Poldhu is about 1,800 miles, and as the greatest distance, up to that time, that Marconi had succeeded in overcoming was about 90 miles, much doubt was expressed as to the success of these experiments. But even the most skeptical were convinced, when on Feb. 25, 1902, and the day following, Mr. Marconi, on board the steamship Philadelphia on his way to America, received worded messages, certified by the ship's officers, up to a distance of 1,515 miles and signals at a distance of 2,099 miles.

During the summer he continued his experiments, his most notable achievements being the exchanging of messages between Poldhu and the Italian cruiser Carlo Alberto, in the harbor of Cronstadt, Russia, in the presence of the Tsar and the King of Italy in July, a distance of about 1,400 miles; and between Poldhu and Spezzia, Italy, in September. The King of Italy not only bestowed upon Mr. Marconi many distinguished honors, but late in September granted him for six months, as a sign of respect for the Government, the cruiser Carlo Alberto for making wireless experiments. He arrived at the Cape Breton station, then nearing completion, Oct. 31. The cruiser was in constant communication with Poldhu during the voyage, and continued to receive messages after her arrival in Sydney, Cape Breton, harbor; however, she was unable with her apparatus to send messages farther than a few hundred miles. After installing the machinery and sending and receiving some experimental messages, on Dec. 21 the first official transatlantic wireless telegram was sent from Table Head. The messages were from Lord Minto, Governor-General of Canada, to King Edward VII of England, and from Mr. Marconi to King Edward and to King Victor Emmanuel of Italy, and from the commander of the Carlo Alberto to the King of Italy, with other minor messages.

Mr. Marconi left Sydney for Cape Cod Jan. 14, 1903, arriving at the South Wellfleet station Jan. 16, and on Jan. 18 sent direct from that station to Poldhu, a distance of 3,000 miles, a message from President Roosevelt to King Edward of England.

In place of the induction coils of his early apparatus, Mr. Marconi used in these experiments a transformer and a 40 horse-power, alternating current dynamo. The transformer raises the voltage from 2,000 to 20,000, and this is further increased by means of condensers to from 50,000 to 70,000 volts. For the coherer he has substituted a "magnetic detector," connected with a telephone receiver, which enables him to increase greatly the speed of receiving, and consequently of sending messages. To insure non-interference he employs the tuning system invented by Prof. Michael I. Popkin, of New York city, whose rights he purchased in 1901. There has been much discussion as to the integrity of Marconi's so-called inventions, and litigation is in progress over many of the patents claimed by the various companies interested in developing wireless telegraphy.

Marconi has now 35 or more stations in various parts of the world, or about 70, including those on ships. Of these, 12 land stations and 17 ships are fitted for sending commercial tele-
YACHTING IN 1902.

YACHTING IN 1902. The first conspicu-
ous yachting event of the season was unique and
of international and diplomatic import. It is
well known that the German Emperor long since
established a world-wide reputation as a cruis-
ing yachtman—that is, as one who loves to go
to sea for the pleasure of it and not merely for
the excitement of racing and of being the mere
owner of racing machines. For this reason he
was naturally attracted to the best type of sea-
going craft, and after sundry experiments with
cutters as developed under the English build-
ers he seemingly arrived at the conclusion that
schooners were best adapted to his purpose, and
therefore he became the owner of the famous
American yacht Yampa, which had distinguished
himself many times in races and proved her
sea-going capacity in many extended cruises.
But she was not quite large enough and sea-
worthy enough to meet the Emperor’s wishes, and
he consulted his designer, A. Cary Smith,
of New York, with a view to securing a more
suitable craft. Plans were drawn and submitted,
and as they received the Emperor’s approval the
work of construction was begun in 1901 at Shoot-
er’s island, near New York.

As the vessel approached completion, or per-
haps as the result of previously conceived plans,
the Emperor decided to make the occasion of the
launching an affair of state, and it was an-
nounced that his brother, Prince Henry of Prus-
sia, with the royal yacht Hohenzollern, would
be sent over to take part in the ceremonies
It presently transpired that correspondence of
a more personal nature had passed between Pres-
ident Roosevelt and the Emperor, and it was an-
nounced that Miss Alice Roosevelt would name
the yacht Meteor with the formalities usual on
such occasions. The vessel was completed and
rigged on time and launched on Feb. 25, under
what was truly a pageant of modern war craft.
As a tugboat captain, she suffered some slight damage. It was not serious enough,

however, to prevent her from proceeding almost
immediately to sea. A crew of English cutter-
men with an English sailing-master were brought
over to take charge of this Yankee schooner, and
she was successfully navigated across the ocean
and her interior fittings were completed under the
Emperor’s directions by English workmen. Since
that time there has been a deal of curiosity and
some criticism upon her performance during the
races in which she has taken part. Much of
this, however, has resulted from a misunderstanding
of her design. The order from the Emperor
was originally given was by letter in which the
words “cruising type” were twice underscored,
and this wish on the part of his Majesty was
emphasized on every occasion in which he ex-
pressed his personal interest in her. Having been the owner and practically master
of an American schooner, he must have acted
with full intelligence when he prescribed the
“cruising type.” The vessel was intended as an
improvement upon the Yampa, whose draft was
13 feet and 6 inches, while the Meteor’s was 15
feet, though the designers well knew that to
make a record in the racing events 20 feet draft
should have been given to her. Such a depth,
however, would have rendered her useless except
in the open sea, and in the opinion of her de-
signer this draft, though necessary for the great-
est speed, would have been a detriment to a sea-
boat.
The Iroquois, whose sea record is unsurpassed,
draws only 9 feet and 6 inches with a load water-
line of 90 feet, and her performance in riding
out the famous blizzard of 1888 is well remem-
bered; for she was strewn with the wrecks of
all kinds of vessels. Her performance last au-
tumn in winning the ocean race from Sandy Hook
to Cape May and return, goes to establish the
American theory that great draft in a sea
day is not a prime requisite. But without a
draft of 20, 30, and even 45 feet longer than
she on the water-line, and this in a reefing breeze
toward windward. All this seems to show that,
though fifteen years old, she is not yet on the retired list. The record of the Meteor is like that of all very large schooners when they are matched against smaller vessels with much larger sailplans, especially in smooth water and light air. When the Meteor is alongside a strong wind and something of a sea, she has shown what she can do by easily beating Sybarita, and breaking the record over the Queen's course at Cowes in three hours, fifty minutes, twenty-seven seconds. Moreover, letters have been received by the designer from his Majesty's representatives, expressing great satisfaction with the Meteor's performance, not only atCowes, but especially when there has been, as sailorsmen say, a "breeze o' wind."

It is constantly of record in all racing fleets that large schooners can be beaten by single-masted vessels in light air. Thus Corons has been beaten in the Goetz races at Newport in the open sea by the Ambarita and Elmina; the Corons is 85 feet long, the Ambarita 99 feet, and the Elmina 66 feet and 7 inches, lead water-line. It must also be remembered that American crews have no equals in the management of sailing schooners. Single-oar cutters are not at all trained to the situation, and their national conservatism is very much against their success in acquiring the art. With an American captain and crew, it is very probable that the Meteor would have established a different record. When we remember that in the matter of handling the Shamrock was far behind the Columbia, and that the pride of every Englishman is distinctively in cutter sailing, it is easy to see that in the handling of a schooner there must be special training both for the crew and for the sailing-master. Whoever has read about the historic performances of the old America, and of the New York Yacht Club of Cork. This was promptly accepted by the New York Yacht Club, and at this writing both vessels are well advanced for completion early in the coming season. The specified dimensions are 90 feet water-line, and cutter rig. The appointed dates for the races are Aug. 20, 22, and 25, and the following Thursdays, Saturdays, and Tuesdays, if necessary.

For the history of the International Races the reader is referred to the Annual Cyclopedia for 1901.

By common consent the series of races for the Canada cup, between the Royal Canadian Yacht Club of Toronto (defenders) and the Rochester (N. Y.) Yacht Club (challengers) was postponed for one year.

The international races for the Seawanhaka-Corinthian International Cup for small yachts, which trophy has been held by Canada since 1880, was held on Lake St. Lawrence near Montreal, on Aug. 7, 8, 9, and 11; the Trident of the Royal St. Lawrence Yacht Club was the defender, and the Tucumseh of the Bridgeport (Conn.) Yacht Club was the challenger. Four races were sailed, the Trident winning three and the Tucumseh one. Another series of races is in prospect for 1903, the challengers being the Manchester (Mass.) Yacht Club.

The annual, the winning boat was something of an innovation, though not to such an objectionable degree as atonetime. She was provided with two light budge-keels set at such an angle that the leeward one was nearly vertical when the boat heeled to her bearings. This arrangement reduced the draft to 4 feet, and left the middle of the cockpit free for "working ship." The Canadian centennial deserts first for having won this coveted international trophy from the best amateur sailors of the United States, and secondly for having so successively defended it during a series of years.

**YOUNG MEN'S CHRISTIAN ASSOCIATION.**

The reports of the Young Men's Christian Association for 1902 enumerate 1,575 associations in the United States and Canada, 105 with 224 members, showing an increase for the year of 99 associations and 54,744 members. The property owned by these associations was valued at $24,101,229. The British Year-Book for 1902 shows that in the United Kingdom, 1,533 centers with (approximately) 120,550 members and property valued in the total at £731,264; in the Colonies, 296 associations, with 32,941 members; and in foreign countries, 5,689 centers, with 467,230 members, and property valued at £4,824,090; making a total for the world of 7,507 centers with 620,721 members, and property aggregating £5,828,593 in value.

The first annual conference of the Young Men's Christian Associations met at Christiansia, Norway, Aug. 20 to 24. Grants toward paying the expenses of the convention had been made by the Storthing and the municipal authorities of the city. Twenty-one hundred delegates were enrolled, of whom 800 were official delegates, representing the United States, Canada, Great Britain, and Ireland, France, Germany, Holland, Belgium, Austria-Hungary, Spain, Portugal, Italy, Denmark, Norway, Sweden, Iceland, Russia, South Africa, Australia, New Zealand, India, and Japan. The English, German, French, and Norwegian languages were used in the proceedings. The European general secretaries reported having organized during America's cup as the result of the races of that year. Shortly after that event was decided, another challenge was received from Sir Thomas Lipton through the Royal Ulster Yacht Club of Cork. This was promptly accepted by the New York Yacht Club, and at this writing both vessels are well advanced for completion early in the coming season. The specified dimensions are 90 feet water-line, and cutter rig. The appointed dates for the races are Aug. 20, 22, and 25, and the following Thursdays, Saturdays, and Tuesdays, if necessary.

The Student Volunteer Missionary Movement.—The Student Volunteer Missionary Movement was begun in 1896 in connection with the work of the Young Men's Christian Association for the purpose of developing the interest and activity of students in institutions of learning in missionary enterprise. In 1902, according to a report made to the convention in Toronto, it had been introduced into 798 institutions, in more than half of which nothing had been done in behalf of foreign missions prior to its inception, and it had greatly stimulated interest in them since it existed. An educational department was instituted about 1874 for promoting the special study of missions. While at that time there were about 600 mission study courses in the United States and Canada, the report made to the
convention of 1909 mentioned 325 such classes with 4,797 students. It is intended to hold the general conventions of the Student Volunteers about every four years, so that the terms shall correspond with the ordinary length of a "college generation." A convention held at Chicago in 1891 was attended by 680 delegates, representing 151 institutions, the principal mission bands of North America, and most of the foreign mission fields. At the convention of 1898 in Detroit, Mich., 1,300 delegates from 294 institutions were present, and at the convention of 1899, in Cleveland, Ohio, out of 1,891 delegates, 1,588 were students and 119 professors representing 461 institutions of learning, the others representing mission boards and associations. At the convention of 1900, 1,000 delegates were present in a meeting held in London in 1900. The fourth general convention in America met in Toronto, Ontario, Febr. 27, 1900, and included 2,035 delegates from 22 countries, among whom 357 colleges were represented by 1,616 students and 121 members of faculty, 51 medical schools by 151 students, 20 theological seminaries by 29 professors, and 276 theological seminaries by 478 students and 65 teachers—2,596 students and 212 professors in all. Mr. John R. Mott, chairman of the Executive Committee of the movement, in his report of the convention, who had just returned from an official visit to the foreign mission-fields for the organization of the movement in them, spoke of its activity in Great Britain, Germany, France, Russia, Sweden, and Holland, and stated reasons why the missionary work should be prosecuted with the greatest energy. The addresses, delivered in general and sectional meetings, related to such subjects as the missionary education of the young, the systematic study of missions in Sunday-schooIs, the place of missionary study in colleges and theological schools, The Printed Page as a Missionary Force, the office of the pastor in promoting interest in missions, etc.

Mr. John R. Mott spoke of the need of the foreign evangelization movement in the non-Christian world; President E. F. Truslow, honorary secretary of the Church Missionary Society, of the increasing openings and opportunities for missionary effort as challenging the present generation of Christians; and Mr. Robert S. Speer, of the Presbytery of Foreign Missions, described The Abounding Resources of the Christian World. Nine sectional conferences were held for the consideration of matters relating to different parts of the mission-field, and 27 denominational conferences. About $15,000 were subscribed for carrying on the work of the movement for the next four years. A report was made that the names were known of 1,933 volunteers who had sailed, up to the present year, to enter the mission service, going out in connection with about 50 different societies and taking posts of labor on the non-Christian world; and that 60 per cent. more had gone out since the convention of 1898 at Cleveland, Ohio, than during the four years preceding. Of the 46 volunteers who had served as members of the Executive Committee, 27 had sailed and 9 others were under appointment or had applied for appointment.

At a conference of Young Men's Christian Associations of theological seminaries in the West, held in Dayton, Ohio, the preparation of a textbook was proposed for use in voluntary classes among theological students having especially in view the practical work of a missionary education in the work for individuals. The seminaries were urged to de-
majority as a Liberal and supporter of the Laurier Government. Major Z. T. Wood, of the mounted police, acted as Commissioner pending a definite appointment. Meanwhile, the other members of the Council were E. C. Senkler, Gold Commissioner; J. E. Girouard, Registrar; H. H. Newlands, Legal Adviser; C. A. Dugas, Judge; and Messrs. Wilson and Prudhomme, elected members. On Jan. 17 the Dominion Government received a petition from the Yukon Council making the following requests: 1, Representation in the Senate; 2, the addition of 5 elected members to the present Yukon Council; 3, the division of the territory into electoral districts and the setting apart of money for election purposes and members' traveling expenses; 4, control of the liquor traffic in the Yukon; 5, the nomination of an inland revenue officer in the Yukon; 6, the right to establish breweries; 7, the setting apart of a fund for the maintenance of schools; 8, the setting apart of a fund to maintain roads; 9, the right for the Yukon Council to adopt all ordinances relative to Yukon matters independently of the Ottawa Government, which, however, should retain the right of veto on Yukon statutes.

Railway and Trade.—The all-important question of railway rates was hastened toward a solution in 1902. In 1901, the Dominion Government, through its Railway Department, had fixed a tariff on the White Pass and Yukon Railway of about $18 a ton for fifth-class goods between Skagway and Whitehorse, but the company refused to accept this or the proposal that no overcharge should be made on the American end of the line to compensate for this Canadian reduction. Finally President S. H. Graves, of the railway, came out from England, met Mr. Tiffin, of the Government Railways, and, after negotiations accepted the following arrangement as to rates: Class 1, which at present is $2.85 per hundredweight, was reduced to $1.90 per hundredweight; class 2 was reduced from $2.84 to $1.66; class 3 from $2.83 to $1.42; class 4 from $2.80 to $1.20; class 5 from $2.75 to 85 cents; class 6 from $2.74 to 90 cents; class 7 from $2.73 to 75 cents; class 8 from $2.72 to 75 cents; class 9 from $2.71 to 73 cents; class 10 from $2.70 to 70 cents. Gov. Ross said that “about 60 percent of the goods going into Dawson was Canadian, and the percentage was steadily growing.” In a report to the Canadian Manufacturers' Association, made public in April, 1902, Mr. Tiffin gave the figures of Yukon trade in various years, ending June 30, as follow:

<table>
<thead>
<tr>
<th>Year</th>
<th>Foreign Imports</th>
<th>Foreign Exports</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>2,187,121</td>
<td>13,184,284</td>
<td>15,371,405</td>
</tr>
<tr>
<td>1901</td>
<td>2,018,769</td>
<td>14,058,437</td>
<td>16,077,206</td>
</tr>
<tr>
<td>1902</td>
<td>1,290,533</td>
<td>13,184,284</td>
<td>14,474,817</td>
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Financial Conditions.—It was expected that the assessment of Dawson for 1902 would fall substantially below that of the past year. The closing of the gambling-halls, the lowering of prices for building materials, and the springing up of several villages in the creeks promised such a result. But the returns finally received and giving the assessment figures for 1901 and 1902 showed very little difference. Realty, 1901, was assessed at $4,154,840; in 1902 at $4,145,090; personal property in 1901 was assessed at $8,285,700; in 1902 at $8,130,900; and in 1901 the total was assessed at $1,199,100; in 1902 at $956,550; the total in 1901 was $11,647,450; in 1902 it was $10,658,440.

The lower personal property valuation was accounted for by many shipments arriving in 1902 unusually late and after the assessment had been made. Further evidence that Dawson was well holding its own was found in the extent of the money orders. In October, 1902, orders to the value of $148,907 were sold. The Yukon has not been a charge on the Dominion, and its indirect value to Canada as a nation has been undoubtedly great.

The Federal Government appropriations for 1902 amounted to $102,090, which if it was estimated would be met by the revenue. Of this sum $178,500 was for roads, $25,000 for buildings, and $125,000 for postal service. In 1901 the revenue was $1,093,868, including $92,961 royalty in gold; $125,861 from free miners' certificate; $229,585 from various mining fees and leases; $88,297 from the sale of Government reserved claims; $74,894 from timber dues; $600,060 from customs duties: $108,572 from telegraphs. The expenditures were $1,671,086, including $30,548 on customs; $319,761 on salaries, surveys, and contingencies; $74,786 on justice; $488,052 on mounted police; $117,913 on postal service; $388,064 on public works; $215,576 on river improvements and maintenances of telegraph-lines and federal buildings.

Mining.—By official figures, the production of gold in the Yukon was $2,500,000 in 1897; $810,000 in 1898; $16,000,000 in 1899; $22,275,000 in 1900; $15,000,000 in 1901. The total since statistics were kept was $70,015,810. In April, 1902, Mr. R. G. McConnell, of the Dominion Geological Survey, published a report of explorations in the preceding summer, which, upon consideration of the whole, showed a very rapid decrease in production and resources. George E. Hees, of Toronto, paid the council a visit in the summer of 1902 and published impressions and statements which aroused considerable criticism. In Industrial Canada of August he wrote as follows: “Since 1897 hundreds and thousands of prospectors have been exploring and prospecting every creek and mountain in that country, and no new discovery of importance has been made for more than a year. I have permission from Mr. Senkler, Canadian Assistant Gold Commissioner, to use his name as saying the output of gold in the Klondike last year was over $24,000,000. The production of the coming year, according to the Government's estimate, will not exceed $14,000,000. The reason for this very large cent. of the gold already found is not known, but it can be stated with certainty that the finds are being worked up, and no new discoveries have been made for more than a year. The hope of the Klondike now is the discovery of gold-bearing quartz of the Wilkie class. So far no such quartz has been discovered.” Several authorities contradicted this.

In the summer of 1902 Mr. Morley Wickett, of Toronto, was appointed by the Canadian Manufacturers' Association to visit the Yukon and report upon its resources, conditions, and development. Summed up, his elaborate data may be given as follows: The gold-bearing sands are of immense area, and the camp will remain important for many years. While the yields are not so striking as in the early years, the cost of production has fallen fully 50 per cent. since 1898, and he pointed out the immense area yet to be prospected, but at the same time sounded the warning that geological investigations do not warrant the belief that another Eldorado will be found, and that public opinion has settled down to the belief that the rest of the country is largely made up of lower-grade gravel. Dawson City is in a state of transition between the old order and the new. Credit is no longer given promiscuously and consolidation is going on. If mining suffered no temporary relapse there should be no change in business conditions in the near future.
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