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BULLETIN
OF THE INTERNATIONAL BUREAU OF THE
AMERICAN
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VOL. XXVII

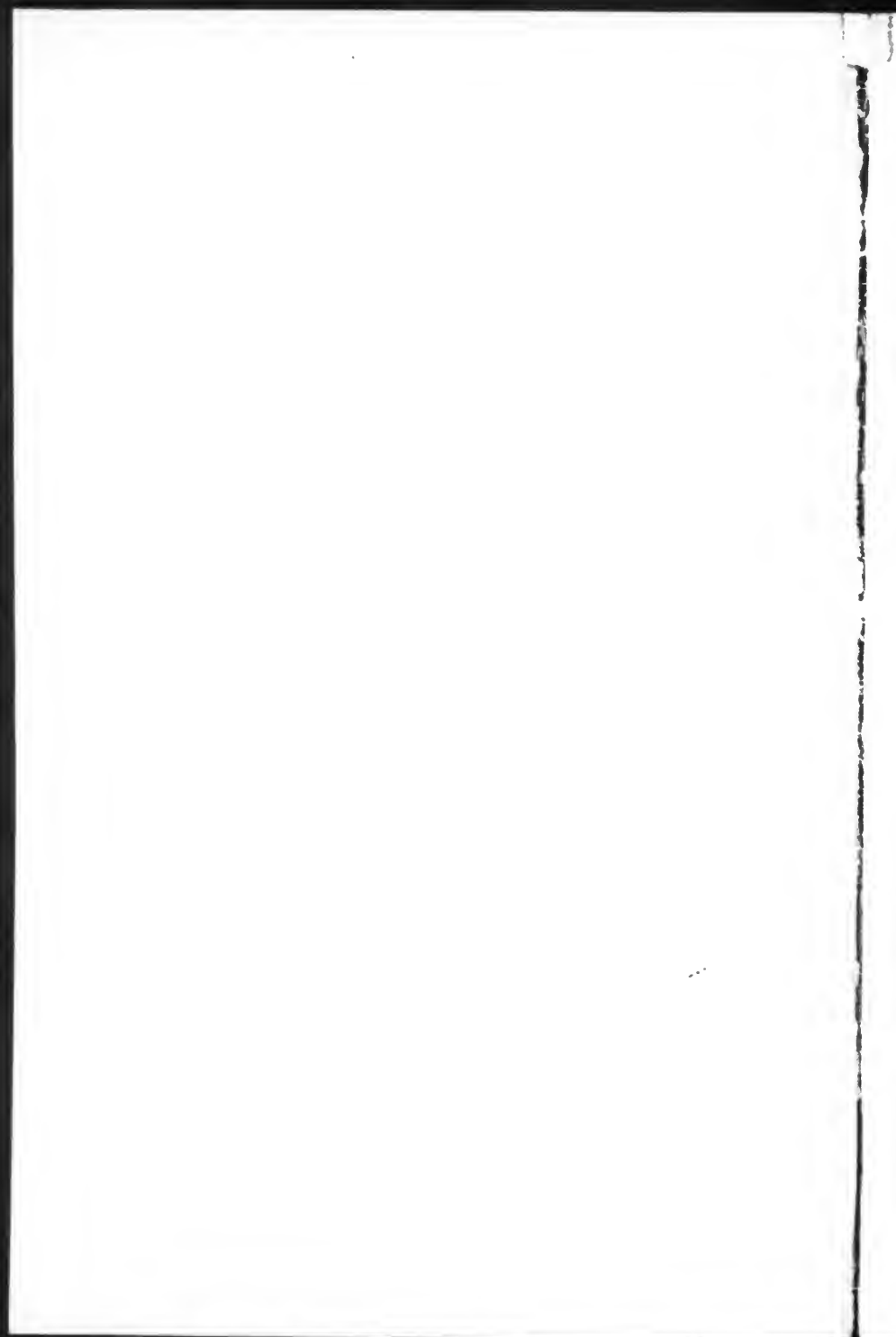
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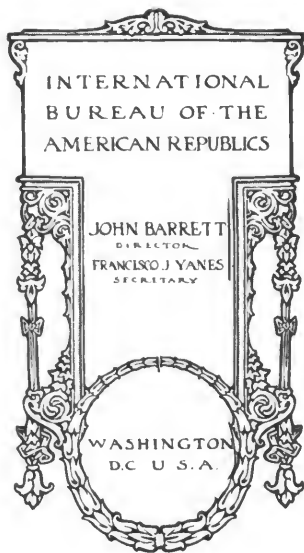
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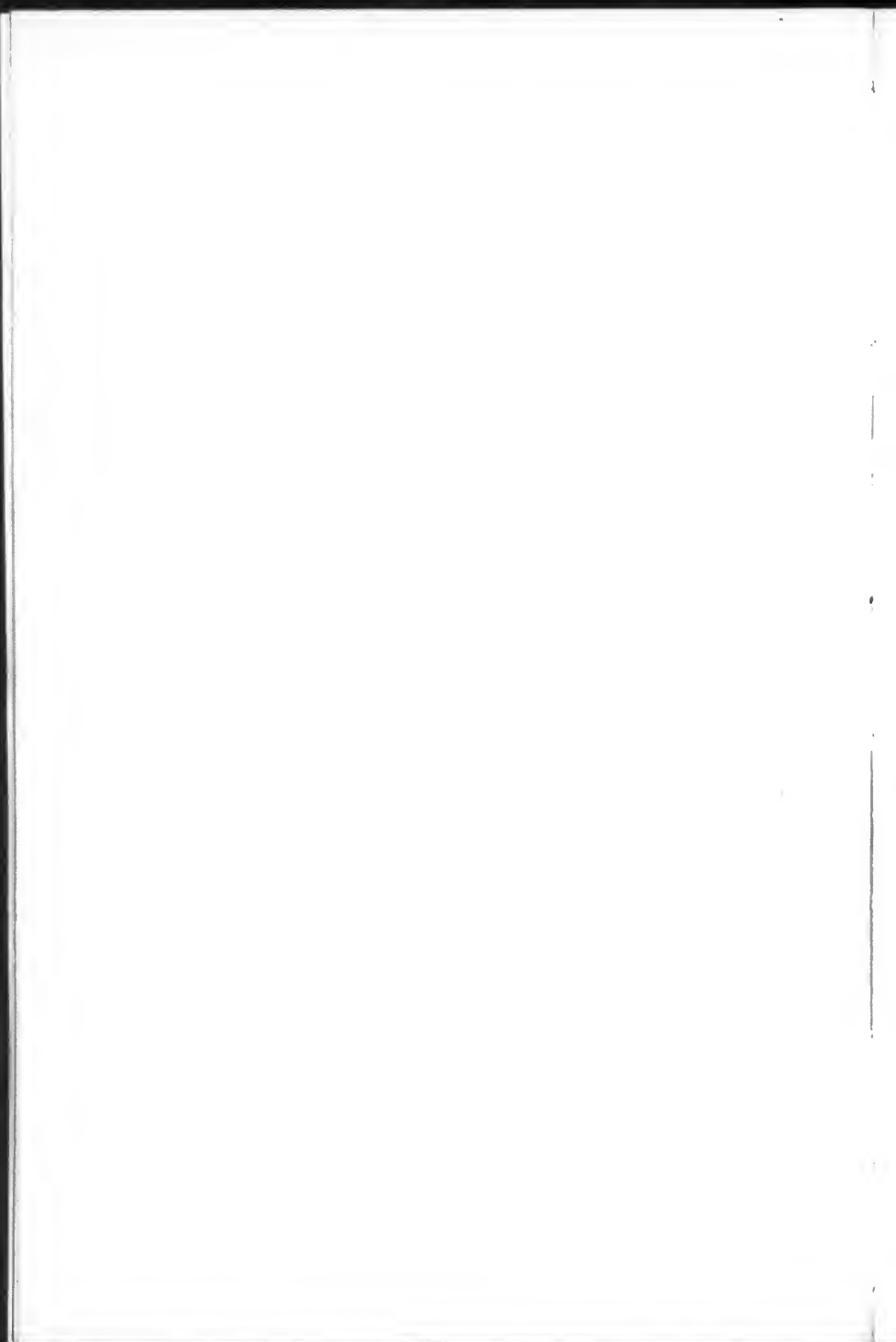
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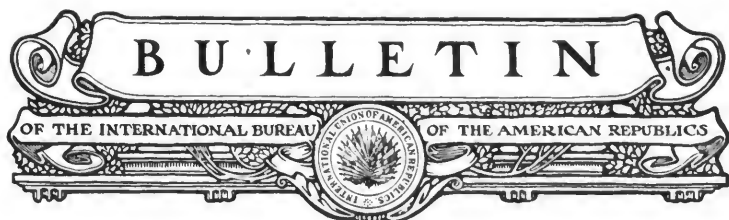
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GENERAL RAFAEL REYES, PRESIDENT OF COLOMBIA.



Vol. XXVII.

JULY, 1908.

No. 1.

Beginning with July issue, No. 1, Volume XXVII, the BULLETIN will hereafter be published in two sections; one completely in English and one having Spanish, Portuguese, and French subdivisions. This change and improvement has been adopted after very careful consideration of ways and means of making the BULLETIN more useful to its international constituency, and hence more practical in disseminating information about the American Republics. Heretofore the BULLETIN has given nearly one-half of its space under the same covers to duplications in Spanish, Portuguese, and French of what appeared elsewhere in English. Inasmuch as not 1 per cent of those persons in the United States receiving the BULLETIN used the portion containing the other languages, the Bureau has been at a heavy expense and the BULLETIN has been made unwieldy to no purpose in reaching this class of readers. On the other hand, not more than 1 per cent of the readers of the BULLETIN in Latin America have cared for the English portion, and hence it has been at a corresponding disadvantage to the Bureau, in expense and unwieldiness, in being sent all over Latin America. By omitting the other languages from the English section there will be room for more articles about Latin America containing the information which is desired throughout the United States. Per contra, by omitting the English from the foreign edition there will be more space in it for the presentation of matters which are of special interest to Latin America. At the same time it will be possible for any person in the United States receiving the English section to obtain a copy of the foreign one if he so desires. The same rule, in the reverse, will apply to Latin America. Another point to be borne in mind is that wherever the BULLETIN circulates in Latin America it carries an English cover, suggesting at once that it is purely an English publication, and therefore not of interest to people familiar

While the utmost care is taken to insure accuracy in the publications of the International Bureau of the American Republics, no responsibility is assumed on account of errors or inaccuracies which may occur therein.

with that language. Hereafter it will carry a Spanish cover, which will immediately attract the attention of those who would wish to read its contents. In this connection it can be said that the demand for the BULLETIN from all parts of the world has been increasing so rapidly during the past six months that now the limit has almost been reached in the number of copies which can be printed under the present provision for its publication.

MR. CARNEGIE'S GIFT TO CENTRAL AMERICA.

Favorable comment has characterized the press of the world in discussing the gift of Mr. ANDREW CARNEGIE of \$100,000 for a building at Cartago, Costa Rica, which will be occupied by the Central-American Court of Justice. While there has already been abundant evidence of Mr. CARNEGIE'S interest in the development of closer relations between the United States and her sister Republics and in advancing the welfare of Latin America, it is particularly pleasing that he should have supplemented his gift for a new structure for the International Bureau of the American Republics with this one in Costa Rica, which will house the first international court on the Western Hemisphere established for the purpose of considering, without recourse to arms, all questions arising among the nations constituting it. The Minister of Costa Rica, Señor DON JOAQUIN BERNARDO CALVO, has presented the Bureau with a very unique copy of a pamphlet entitled "Andres Carnegie," which reflects the enterprise of his Government in showing its appreciation of Mr. CARNEGIE'S gift for the new Peace Temple in Cartago.

DESIGN FOR THE CENTRAL AMERICAN COURT OF JUSTICE.

Tentative plans have been made for the building to be occupied by the Central American Court of Justice recently inaugurated at Cartago, Costa Rica, concerning which the Special Envoy of the United States, Mr. WILLIAM I. BUCHANAN, states that the President of the Republic desires the consideration and suggestions of Mr. CARNEGIE. The present design, as embodied in a rough sketch, provides for a building 100 feet square, one story high, and covering an entire city block at a point overlooking the mountains, the valley, and the city. The offices of the court are to be grouped around a central patio ornamented by a fountain. The chamber of the court will occupy one entire side of the building, while rooms for the judges and attorneys will be provided in two of the remaining sides. The fourth section will contain a library and offices for the clerical force. It is purposed that construction shall be along simple and classic lines, the stone which is found in the vicinity of Cartago to form the building material for the outside, while



SEÑOR DON J. DOMINGO DE OBALDÍA.
Elected President of the Republic of Panama July 12, 1908.



PHOTOGRAPH TAKEN IN THE LYCEUM OF COSTA RICA, SAN JOSE, COSTA RICA.

J. B. Calvo, Costa Rican Minister to Washington and Mexico; Bernardo Urueta, Mexican Deputy; Carlos Alberto Urdés, Judge representing Honduras on the Central American Court of Justice; Mr. Salinas, Director of the Lyceum of Costa Rica; Enrique Creel, Mexican Ambassador and High Commissioner; Dr. Luis Anderson, Minister of Foreign Affairs of Costa Rica; Mr. Buchanan, High Commissioner from the United States; Dr. Salvador Gallegos, Judge representing Salvador on the Central American Court of Justice; Dr. Angel Maria Boehmerna, Judge representing Guatemala on same Court; Dr. Jose Madriz, Judge representing Nicaragua on Court of Justice.

the general construction is to be of brick reinforced with steel. A portico adorned with stone columns is to be the only decorative feature of the building and the ceiling height will be about 21 feet from the flooring.

AN EXTRAORDINARY DIPLOMATIC VISIT.

Now that the extraordinary visit of Ambassador CREEL and Commissioner BUCHANAN, on behalf, respectively, of Mexico and the United States, to Costa Rica is concluded, these distinguished gentlemen are to be congratulated on the success of their mission. They were everywhere shown courtesies that gave evidence of the appreciation on the part of the Government and people of Costa Rica of the efforts of Mexico and the United States to bring about permanent peace and friendship among the Central American Republics. They were present at the first meeting of the Central American Court of Justice at Cartago, Costa Rica, and participated in other celebrations that had more than a passing significance.

PRESS COMMENT ON THE NEW BUREAU BUILDING.

The official and general press of Latin America commented favorably and to great extent upon the ceremonies attendant upon the laying of the corner stone of the new building for the International Bureau of the American Republics. The mails are daily bringing from the various countries composing the Union, local comment on the importance and significance of the occasion, while many of the papers publish in extenso the addresses delivered. All unite in finding the event a memorable one, and in lauding the fraternal spirit which is at the base of so important a structure as the home of American nations.

EVIDENCE OF NEW INTEREST IN LATIN AMERICA.

Conclusive evidence of the increase of interest in the relations of the United States with Latin America and in the possibilities of the development of commerce and trade among the American Republics is found in the plank of the platform of the Republican party, adopted at Chicago, June 18, 1908, which reads as follows:

Under the administration of the Republican party the foreign commerce of the United States has experienced a remarkable growth, until it has a present annual valuation of approximately three billion dollars and gives employment to a vast amount of labor and capital which would otherwise be idle. It has inaugurated, through the recent visits of the Secretary of State to South America and Mexico, a new era of Pan-American commerce and comity, which is bringing us into closer touch with our twenty sister American Republics, having a common historical heritage, a republican form of government, and offering us a limitless field of legitimate commercial expansion.

THE BRAZILIAN AMBASSADOR MADE A DOCTOR OF LETTERS.

Yale University did honor to itself, as well as to Ambassador NABUCO, of Brazil, when it conferred upon him at its recent commencement the degree of doctor of letters. Mr. NABUCO is not only an eminent diplomat, but one who has obtained the highest distinction in literary fields. His breadth of learning and scholarly style are recognized not alone in the Portuguese, but in the French and English speaking world. His recent paper on the Portuguese poet CAMOËNS, which was delivered before the students of Yale University some weeks ago, has attracted general attention and has tended to awaken the interest of American scholars in Portuguese literature.

THE NEW UNITED STATES MINISTER TO THE ARGENTINE REPUBLIC.

In this issue we publish a portrait of the new United States minister to the Argentine Republic, Hon. SPENCER EDDY. Few young men in the diplomatic service of the United States are better qualified for the work before them than Mr. EDDY. It is now eleven years since he first began his diplomatic career in connection with the United States Embassy at London, where he acted as Private Secretary to Ambassador JOHN HAY; in 1898 he returned to Washington as Secretary to Mr. HAY; in 1899 he was appointed Third Secretary of the Embassy in London; in the same year he was appointed Second Secretary of the Embassy in Paris; in 1901 he was promoted to be First Secretary of the Embassy in Constantinople; in 1903 to be First Secretary of the Embassy in St. Petersburg, and in 1906 to be First Secretary of the Embassy in Berlin. Upon the transfer of Minister ARTHUR M. BEAUPRÉ from Buenos Aires to The Hague, he was appointed, in 1908, Minister to the Argentine Republic. During his service at Constantinople, St. Petersburg, and Berlin, Mr. EDDY had more than two years' experience as Chargé d'Affaires. Mr. EDDY is the son of Mr. AUGUSTUS N. EDDY, one of the best-known men of Chicago, and a brother-in-law of Hon. ALBERT J. BEVERIDGE, United States Senator from Indiana. Mr. EDDY, accompanied by his wife and child, sailed from New York for Buenos Aires, via England, in the latter part of June.

DELEGATION OF THE UNITED STATES TO THE PAN-AMERICAN SCIENTIFIC CONGRESS.

All indications now point to the successful representation and participation of the United States in the Pan-American Scientific Congress which is to be held in Santiago, Chile, next December. The delegates appointed by the Government of the United States are all able specialists who stand in the forefront of the scientific world, while many



HONORABLE SPENCER EDDY.

Envoy Extraordinary and Minister Plenipotentiary from the United States to the Argentine Republic.

(Harris-Ewing Photo.)

others, who will go to represent different universities, are men who have made reputations for themselves in different lines of work. As described elsewhere in this issue of the BULLETIN, in an article written by WILLIAM C. WELLS, of the staff of the Bureau, the United States delegation has met, organized, and divided the different subjects among its membership, so that the delegates will be entirely in readiness for carrying out the programme when they arrive at Santiago.

NITRATE—A GREAT FACTOR IN LATIN AMERICAN TRADE.

There is a growing interest throughout the world in the development of the nitrate trade of Chile. Nitrate is becoming not only such an important portion of the exports of that Republic, but so essential to the agricultural and manufacturing needs of the other countries of the world that a review of the production of nitrate in Chile is timely, and hence there is published in this issue of the BULLETIN an article on the subject, carefully prepared by Dr. ALBERT HALE, who has traveled extensively through Latin America and is now connected with the staff of the Bureau. Few people realize the enormous income that Chile is deriving from nitrate and the important part it is playing in the manufacture of fertilizers, gunpowder, etc. Recently several commissions of American and European manufacturers have been visiting Chile for the purpose of getting into closer touch with the conditions surrounding the mining and exporting of this product, the demand for which is sure to increase enormously in the near future.

ANNUAL REVIEW OF LATIN-AMERICAN TRADE AND COMMERCE.

The greater portion of this issue of the BULLETIN is given over to a carefully prepared annual review of Latin-American trade conditions and statistics. This review has been published annually for so many years that it is now awaited with much interest by all those who are especially interested in the development of the Latin-American Republics, but it is also recommended to those who, for the first time, are taking up the study of the progress of that part of the world. It amounts essentially to a handbook of the present commercial situation in the twenty Republics south of the United States.

AMERICAN TRADE IN 1907.

A review of economic conditions prevailing through the countries of Latin America during 1907 shows generally satisfactory records. The trade volume is represented by over \$2,000,000,000 out of \$5,500,000,000 recorded for all America exclusive of British possessions, both imports

and exports showing noteworthy gains over the preceding year. Between the United States and Latin America, the record shows advanced values for both branches of trade with Central America, and an increase of \$6,000,000 in the matter of exports to South America as a whole, while imports remained practically stationary. Commercial intercourse with Mexico and Cuba gained in importance, and with the smaller Republics of Haiti and Santo Domingo trade values remained practically unchanged. Development proceeded along such natural lines of progress as is indicated by the opening of new railroad lines, the establishment of new industries, administrative measures for the protection of old ones, and such encouragement of colonization and immigration as is necessitated by the vast reaches of virgin soil existing throughout the Western Hemisphere. International relations were marked by better mutual understanding of character and conditions, and the movement toward universal peace received a tremendous impetus in various conferences and conventions.

THE ARGENTINE REPUBLIC AS A COMMERCIAL FACTOR.

The growing importance of Argentine commercial relations with the world is demonstrated by the trade returns for the first quarter of 1908, particulars of which have been recently issued through the National Department of Statistics. In the total volume of trade for the three months in reference, valued at \$186,468,952, imports are represented by \$70,840,220, or \$16,169,335 more than in the corresponding quarter of the preceding year, while exports figure for \$115,627,832, or \$18,681,615 in excess of those of the first three months of last year. The countries of Europe and the United States increased their exports thither, but from Brazil and Uruguay a falling off is noted in receipts of merchandise. Great Britain increased its receipts of Argentine goods, as did Belgium, Brazil, Spain, Italy, Holland, and Uruguay, while decreased values are noted for the United States, Germany, and France. Trade with Chile and Paraguay also increased, but with Bolivia it declined by about 25 per cent. On the export list, agricultural products show the large increase of \$32,663,488 for the quarter, being the leading item, while of imports, textiles valued at \$14,150,466 head the list.

MEXICO'S TRADE VALUES IN 1908.

For the first nine months of the fiscal year 1908 Mexico's trade volume shows a general increase of over \$4,700,000 in a total of \$181,727,100. This increase is, however, confined entirely to imports, which were valued at \$92,717,300, an advance of \$4,785,000 over the corresponding period of the preceding year, while exports figured for \$89,009,800, or a

decrease of over \$9,000. Textiles and machinery rank all other imports, being valued at \$12,286,000 and \$11,393,000, respectively, both showing increased values as compared with last year, while in exports, mineral products worth \$62,354,000 stand easily first with a gain of \$738,688. Gold valued at \$12,600,000 and silver at \$36,778,000 are the leading items under this head, the former showing a gain of \$3,376,000 and the latter a decline of \$2,248,000. The United States is the leading receiver of Mexican exports, though a decline is noted as compared with last year, as is the case with Great Britain, while Germany and France both advanced their purchases. The United States still stands at the head of the list as a source of Mexican imports, though a loss of over \$5,000,000 is noted in 1908, while Great Britain advanced her sales in Mexico by nearly the same amount. Noteworthy increases were also made by Germany and France.



BOOK NOTES

The publication, in English, by G. P. Putnam's Sons (27 West Twenty-third street, New York, and 24 Bedford street, Strand, London), of the "Letters of Cortes" places in the hands of all readers matter of incalculable interest which has heretofore been accessible only to students of Spanish. The translation by FRANCIS AUGUSTUS MACNUTT has been made more with the design of communicating the characteristic soldier-like terseness of the great commander's style than of exploiting the translator's own scholarly attainments. As a consequence, the native flavor of the original letters sent to the Spanish Emperor CHARLES V is retained, and as they are entirely lacking in what was considered in the sixteenth century evidences of highest culture, such as involved classical allusions and philosophical disquisitions, they furnish an unvarnished tale of exciting adventure and campaigning. Five in all, the first letter, published for the first time in English, contains an account of the establishment of a Spanish colony at Veraeruz, where, in deference to the popular demand, Cortes was transformed from the simple commander of a few trading vessels into the Spanish sovereign's legal representative. The functions in connection with the installation of the colony are vividly described, humble petition being made for royal sanction thereof, and the story of subsequent events is narrated with simplicity and significance as marked as in Cæsar's *Commentaries*, with which these letters have often been compared. It is important, however, to realize that Gaul presented to the Roman conqueror no such centers of civilization and opulence as did the great Aztec empire when subdued by Cortes, and that the latter's soldiers were but marauding buccaneers as compared

with the legions of Rome. The lake city of Temixtitlan (Mexico) and the vast domain of Montezuma are described in the second letter. Of the imprisonment of the latter his conqueror naively narrates:

So good was my treatment of him and the satisfaction he felt, that sometimes, and frequently, I offered him his liberty, praying him to return to his palace; but he told me each time that he was contented there and did not wish to go.

A record of continued conquest of the country is made in the three succeeding letters, but probably none of this official collection is equal in personal interest to the last and private document Cortes addressed to the sovereign to whom he had given more provinces than the latter possessed cities. This was written in 1544, when he was out of favor at court and on the point of final disgrace in spite of his achievements for the Crown. It asked that decision in regard to his case might be rendered by a certain date and that he might be permitted to return home to "settle his account with God." The laconic annotation on this was "no reply necessary." Not the least valuable section of the work is the biographical introduction by the translator, which covers a brief but faithful study of the life of Cortes, presenting many new lights upon the character of the great discoverer and in many instances rescuing it from unmerited condemnation. This valuable literary production is published in two octavo volumes, with portraits in photogravure and maps, being limited to 750 sets printed from type.

From the press of G. P. Putnam's Sons, New York and London (Knickerbocker Press), comes the story of the southern Spanish colonies in the last half century of their dependence, or "South America on the Eve of Emancipation." The aim of the writer, Prof. BERNARD MOSES, Ph. D., LL. D., of the University of California, is to present certain conspicuous events, institutions, and phases of life illustrative of conditions prevailing in Spanish America in the latter part of the eighteenth century. The viceroyalty of Peru, with Lima as its capital city, embraced the territory now comprised by the Republics of the Argentine, Bolivia, Chile, and Paraguay until 1776, when the viceroyalty of Rio de la Plata was created, but Lima continued the center of social and political life, the eminence of Buenos Aires not being attained until later. The gradual drift toward social anarchy is logically deduced from the surroundings and distance from a central government, while the necessary subordination of ecclesiastics to the Spanish Court did not affect the conversion of the natives wherever conquest had been carried. The taking of Buenos Aires by the British in 1806 as an outgrowth of the Trafalgar victory, followed by the reconquest of the city by the inhabitants, aided by both Chilean and Peruvian agencies, is shown to have contributed to national development, as it demonstrated the ease with which Spanish authority might be overthrown, while the initiative taken in the northern part of

the Continent and the burdensome trade restrictions imposed by colonial administration were also contributory causes in the final emancipation from Spanish rule.

In the series embracing the History of North America, edited by Dr. FRANCIS NEWTON THORPE, of the University of Pennsylvania, and published by George Barric & Sons, Philadelphia, Volume IX has been issued, devoted to "Central America and Mexico," prepared by ALCÉE FORTIER, L. D., and JOHN ROSE FICKLEN, B. L., of the Tulane University, of Louisiana. As a sample of the typographer's art the work is worthy of highest consideration, while the standing of the authors is sufficient guaranty for the literary quality of the style. The history of Central America, Mexico, Texas, New Mexico, and Arizona, in fact the greater part of New Spain, in contradistinction to New France or New England, is narrated—a history of discovery, exploration, conquest, colonization, and exploitation. This aboriginal world was transformed by a series of revolutions into the present progressive Republics, so it is of necessity of revolutions that the volume treats, from the days of the Spanish *conquistador* to the signing of the Hay-Bunau Varilla treaty, in 1903. Research among original documents and reference to established authorities has been made for historical correctness, and the whole may be cited as an authoritative and valuable compendium of knowledge concerning a section of the world in which interest is increasing daily. To the student and general reader also its appearance is of immense value as a truthful record of the results of patient investigations.

"In Indian Mexico," a narrative of travel and labor by FREDERICK STARR, published by Forbes & Co., Chicago, while apparently another travel book on Mexico to swell the legion, covers a practically unknown section of the Republic, treating, as it does, of Indian life and customs in southern districts, where the *mestizo* is the exception among the pure-bred Indian inhabitants. While the primary object of the book is to detail the incidents connected with ethnological studies in these Indian towns, many characteristic incidents of life and customs are incorporated. A distinctive feature of the religious faith of the sections visited seems to be the sacred dances in which the masked participants are supposed to portray happenings in the history of Christ. The many *fiestas* occurring in the church year are observed with care and celebrated with more or less riotous feasting, and the odd grafting of Christianity upon primitive religions is of special interest. The discovery of inns kept by such diverse nationalities as Frenchmen and Japanese in this almost aboriginal district was a surprise to the travelers, though the unvarying hospitality of the natives rendered recourse to hostleries almost unnecessary. The

types selected for measurement and bust models also served as originals for the countless photogravures which embellish the volume and render it of interest to the general public. The scientific results of the expedition are published separately.

Señor Don VICENTE G. QUESADA, who has served in the diplomatic service of the Argentine Republic for almost a quarter of a century as representative of his country in the United States, Mexico, Spain, Portugal, Germany, Brazil, and at the Holy See, is spending his retirement at Buenos Aires compiling the memoirs of his long career. The first section covering his mission to Brazil (*Mis Memorias Diplomáticas-Misión ante el Gobierno del Brasil*) has been received by the Columbus Memorial Library, and is an interesting record of achievement and events. Arriving at Rio de Janeiro early in 1883, and remaining until the close of the following year, his accounts of the social happenings of the Brazilian capital pay tribute to the culture and distinction prevailing everywhere under the empire, a special chapter being given to a consideration of DOM PEDRO II. In the preparation of the official section of his book, Señor QUESADA has had access to governmental files and documents for the assurance of historical accuracy, so that the work has a value apart from the personality of the author.

A valuable addition to the geographic literature on Brazil is the book entitled "*Braziliën und Blumenau*," by Lieutenant WETTSTEIN, Ph. D., published by Friederich Englemann, Leipzig, 1907. Although this book is written with the object of encouraging German immigration primarily, it has valuable information for others in regard to the resources, trade, agriculture, industries, schools, etc., of the colony of Blumenau in particular and Brazil in general. In view of the fact that the author is an eminent economist the discussion of the conditions is of great interest. The advantages of the new immigration laws of Brazil, which will tend to increase the influx of immigrants, are detailed at length. The book is handsomely illustrated and has two small maps, one showing the German steamship lines between Europe and the Atlantic coast of South America and the other the colony of Blumenau and its neighbors.

To Panama and Back, the Record of an Experience, by HENRY T. BYFORD, M. D. (W. B. Conkey Company, Chicago), is a narrative of personal misadventures rather than a serious attempt to describe or to analyze conditions existing in Panama in December, 1904, and January, 1905. The author, a distinguished surgeon of Chicago, went to the Isthmus as a delegate to the Pan-American Medical Congress held there

at that time, and he divides his book into three parts—to Panama, the Congress, and Back. There are some bright paragraphs contrasting life in the Tropics with habits and customs elsewhere, and many novel views are advanced concerning Isthmian civilization in general as well as Canal influences in particular. Read by or to friends who might have personal knowledge of the author's itinerary the book is certainly enjoyable, but it should not be seriously studied as a source of information about Panama.

"Retrieval at Panama," by LINDON BATES, noted as an engineer and author, for sale by the Technical Literature Company, 220 Broadway, New York, is the text for a financial, executive, and technical review of the work to be done at Panama. In the collection of literature on the subject the volume has a valuable place, opposed though the writer may be to the accepted plans for the Canal.



WHAT IS IN THE MAGAZINES

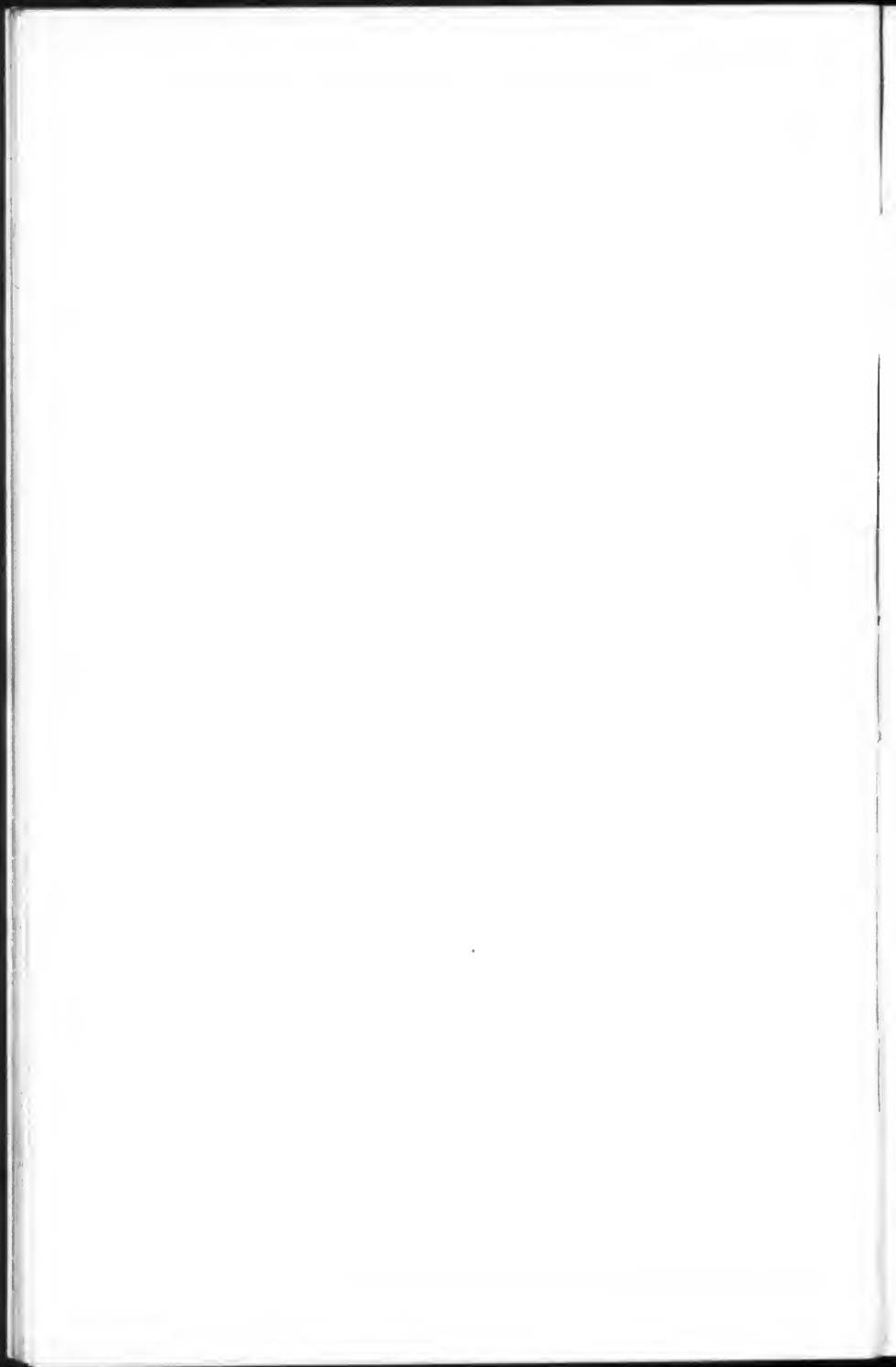
With the same charm of style and abundance of information as has characterized his other papers, ARTHUR RUHL continues in "Scribner's" for June his description of South American countries with an account of "Brazil—where the coffee comes from." He designates the Republic as a land of coffee, most of which is grown on the uplands of the State of São Paulo, where there are between 15,000 and 16,000 plantations and where, if governmental restrictions were removed, enough might be grown to supply the whole world with the morning beverage. In his details of national characteristics the writer is animated by a sincere appreciation of the native life, which, under the spell of the Portuguese sombreness of temperament and the prevailing tropical languor, makes the present seem vaguely antique. The culture is largely of the old-world type, the average citizen finding a greater degree of enjoyment in classical interests than the corresponding rank of the United States. Beautiful views of the Rio de Janeiro, with its famous sea drive and harbor, of coffee lading at Santos, of Pernambuco bridges, and of the great plantations of São Paulo, add interest to the article.

With the purpose of interesting every banker and investor in the United States in the industrial and material development of Latin America, JOHN BARRETT, Director of the International Bureau of the American Republics, has contributed to the "Bankers Magazine" for

June an article on "Latin America as a field for United States capital and enterprise." By reason of his official residence in many of the Republics in reference, Mr. BARRETT is well qualified to speak with authority on the subject, and his statement of the immense opportunities for investment of capital is borne out by the fact that in Mexico the amount of money at present contributed by the United States to industrial development is represented by \$700,000,000, and in Cuba by \$150,000,000, while Colombia and Brazil furnish a legitimate field for \$25,000,000 and \$100,000,000, respectively. The immense sums appropriated by the various governments in railroad, harbor, and other improvement demonstrate the impulse pervading the Continent toward modern development, while the fact that in the year 1907 the total trade of Latin America was represented by over \$2,000,000,000, of which exports constituted much more than one-half, amply proves the value of the resources to be exploited.

A layman's view of "How the dirt flies at Panama" is the initial article of the "Technical World Magazine" for June, the writer, ROY CRANDALL, considering that although 1915 is officially given as the date of the first ship transit across the Panama Isthmus, it will in all probability be antedated by a year. It is toward demonstrating the possibility of this achievement that the aim of the author is directed, and he cites figures and processes which render the conclusion a just one. To be sure, the building of the canal is but a portion of the work to be accomplished, but the sanitation problem has been met and conquered, and where the payroll alone covers 32,000 names it is evident that much has been done in the direction of final completion.

"A Mexican bullfight as witnessed by an American girl" is described in the June issue of "The World To-day," and special mention is made of the fact that not only did the greatest bullfighters of the present time participate in the sport, but that a young Mexican millionaire paid \$10,000 to be allowed to appear for the first time as a matador. This sufficiently indicates the hold which this form of diversion has upon the Mexican, although the President of the Republic is reported to be desirous of putting an end to it and will not attend any public spectacles of the kind. However, the glitter and glory did not sufficiently appeal to the spectator to blind her to the fact, seemingly appalling, that six bulls must be killed to make a really successful show.



FIRST PAN-AMERICAN SCIENTIFIC CONGRESS.

DELEGATES FROM THE UNITED STATES GOVERNMENT.

In accordance with the provisions of the act passed at the last session of Congress making an appropriation of \$35,000 to defray the expense of sending a delegation, in response to the invitation of the Chilean Government, to represent the United States at the First Pan-American Scientific Congress, which will assemble at Santiago on December 25, 1908, the Hon. ELIOT ROOR, Secretary of State, has appointed the following as delegates:

Prof. LEO S. ROWE, of the chair of political science since 1897 and graduate of the University of Pennsylvania, Ph. D. of Halle and LL. D. of La Plata University, Argentine Republic, chairman of the delegation. Doctor ROWE was a member of the Commission appointed in 1900 to revise and compile the laws of Porto Rico, and afterwards, in 1901, chairman of the Insular Code Commission, whose report, in four volumes, was, with some modifications, adopted by the legislature of Porto Rico as the political, civil, penal, and procedure codes under which the island is now governed. Doctor ROWE was a delegate to the Third International Confer-



ence of American Republics at Rio de Janeiro in 1906, is the President of the American Academy of Political and Social Science, and Chairman of the Executive Committee of the Pan-American Committee of the United States appointed by the Secretary of State, Hon. ELIOT ROOR. He has published the following works: "The United States and Porto Rico;" "Report of the Porto Rican Code Commission;" "Report of the Insular Code Commission;" "Finances of Berlin and Paris," and "Problems of City Government." He has traveled and spent much time in South America.

Prof. PAUL S. REINSCH, of the chair of political science of the University of Wisconsin, a graduate and Ph. D. of Wisconsin, and who studied at the universities of Berlin, Rome, and Paris, vice-

Photographs by Harris-Ewing, Washington.

chairman of the delegation. Professor REINSCH was a delegate to the Third International Conference of the American Republics at



Rio de Janeiro in 1906 and is the author of "Common Law in the Early American Colonies;" "World Politics at the End of the Nineteenth Century as Influenced by the Oriental Situation;" "Colonial Government;" "Colonial Administration," and "American Legislatures and Legislative Methods." He is a contributor to the reviews and to historic and economic journals, has traveled extensively in Latin-American countries, and is a close student of their laws, customs, and history.

Prof. HIRAM BINGHAM, of the chair of history of Yale University, A. B. of Yale, M. A. of the University of California, A. M. and Ph. D. of Harvard University, and F. R. G. S. Professor BINGHAM was assistant professor in history at Harvard, 1903-1905; curator of South American history and literature at Harvard, 1903-1908; preceptor in history, politics, and economics at Princeton University, 1905-1907; lecturer in South American geography and history, 1907-8, and in Latin American history, 1908, at Yale University. He spent six months in 1906-7 exploring in Venezuela and Colombia, investigating the battlefields of Carabobo and Boyaca, and in following BOLIVAR's march across the Andes. He is the author of "Straws Gathered from Revolutionary Fields;" "Early History of the Scots Darien Company;" "Possibilities of South American History and Politics as a field of Research," and of numerous articles in the leading reviews.



Prof. ARCHIBALD C. COOLIDGE, of the chair of history of Harvard University, a graduate of Harvard, a student of Berlin University and of École des Sciences Politiques of Paris, and Ph. D. of Freiburg. Professor COOLIDGE was Acting Secretary of the Legation at St. Petersburg in 1890-91, Secretary of the Legation

at Vienna in 1893, and the Harvard lecturer at the Sorbonne and other French universities in 1906-7. He is a contributor

to the "American Historical Review" and the "New York Nation."

Col. WILLIAM C. GORGAS, U. S. Army, Chief Sanitary Officer, Isthmian Canal Commission. Colonel GORGAS is a graduate, A. B., of the Sewanee University of Tennessee, M. D. of the Bellevue Hospital College of New York, and was appointed first lieutenant in the Medical Corps of the United States Army in 1880. He was captain in 1885, major in 1898, and colonel by special act of Congress in 1903. This act was passed in recognition of Colonel GORGAS's splendid work in subduing the yellow fever epidemic in Havana when he was Chief Sanitary Officer.



Mr. WILLIAM H. HOLMES, Chief of the Bureau of American Ethnology, Smithsonian Institution, since 1902, prior to which time he

had been curator of Department of Aboriginal Pottery in the National Museum; archaeologist of the Bureau of Ethnology; curator anthropology, Field Columbian Museum; professor of anthropic geology, University of Chicago, and head curator, Department of Anthropology, Smithsonian Institution. Mr. HOLMES is a well-known author on anthropology, ethnology, and archaeology, and gained the LOUBAT prize of \$1,000 in 1898. Among other works he has published "Archaeological Studies Among the Cities of

Mexico;" "Stone Implements of the Potomac-Chesapeake Tidewater Province," and "Preliminary Revision of Evidence Relating to Auriferous Gravel Man in California."

Prof. BERNARD MOSES, of the chair of history and political science of the University of California since 1876. Professor MOSES was a member of the United States Philippine Commission from 1900 to 1902. He is a contributor to the leading magazines, and is the author, among other works, of "Federal Government in Switzerland;" "Democracy and Social Growth in America;" "Establishment of Spanish Rule in America;" "Railway Revolution in Mexico;" "Establishment of Municipal Government in San Francisco," and "The Government of the United States."



He was graduated from the University of Michigan in 1870 and from Heidelberg with the degree of Ph. D. in 1873.



Mr. GEORGE M. ROMMEL, of the Bureau of Animal Industry, Department of Agriculture, a graduate of Iowa Wesleyan University and of Iowa State College. Mr. ROMMEL is an expert in animal husbandry and was manager of experimental farms at Walla Walla, Washington, in 1901, since which time he has been connected with the Department of Agriculture. He is the author of various bulletins and monographs on animal husbandry.

Prof. WILLIAM R. SHEPHERD, of the University of Columbia, New York, A. M. and Ph. D. of Columbia, and student of the Universities of Berlin and Madrid. Professor SHEPHERD is the author of "History of Proprietary Government in Pennsylvania;" "The Spanish Archives" in American Historical Society report for 1904, and of various articles on the history of Spain and America. He spent several months traveling in South America for purposes of study in 1907.



Prof. WILLIAM B. SMITH, of the chair of Philosophy, Tulane University, Louisiana. Professor SMITH is A. M. of the University of Kentucky and Ph. D. of Gottengen, 1879. Has acquired distinction as a teacher and author in mathematics and physics, and also as a critic of the New Testament. Among other works he has published "Coordinate Geometry;" "Infinitesimal Analysis;" "Clew to Trigonometry;" "The Color Line;" "Der vorchristliche Jesus," and "Pauline Codices F and G."



At the invitation of Secretary Roor the delegates assembled at the State Department in Washington on June 15 last, in order that the delegation might be organized and to dissenz with the Secretary

the object and purpose of their appointment. All the members were present, except Professor SMITH, who was detained by a railroad

wreck, and Professor MOSES, who was in Europe. In the absence of Director BARRETT, the Acting Director of the International Bureau of the American Republics, Mr. YÁNES, was present.

The delegation was organized with Professor ROWE as chairman and Professor REINSCH as vice-chairman.

Mr. ROOR briefly addressed the delegation on the subject of the importance of the coming Scientific Congress, not only to the countries represented, but to the world at large, and the desirability that the United States should be adequately represented at the assemblage, to which representatives from this country are now, for the first time, invited, under the influence of the new Pan-American entente.

He said:

It is very desirable that we should contribute our fair share and that the work which you do and the association which you form should contribute toward the establishment of permanently good relations. * * *

In many ways the interests of the United States are very much concerned in the advance of the other American countries. The advance of knowledge and improvement of practice among them in all sanitary and such matters is of great practical importance to us. The reconciliation of methods in all commercial matters, the administration of the ports, of the customs, of all the machinery of trade intercourse, and the adoption of approved methods are of great practical importance to us. * * * It is for the interest of all of them to have the highest standard, the most complete experience, and the greatest skill attained in any one made the common property of all. The Congress to which you are to go will afford opportunities for that, and will afford such opportunities largely because, being a Congress of representatives of all the countries, the conclusions which are reached, the lessons which are learned, the things that are said there will go to each country, not as coming from a schoolmaster, an alien schoolmaster, whose dictation or assumption of superior knowledge would be resented, but would come from a body in which they themselves are represented. * * *

Many of the matters which will be discussed according to the programme of this conference are matters which will be taken up there on the scientific side, and will be later discussed on the political side before the next Pan-American conference, to be held in Buenos Aires in 1910, and in future conferences. Of course, you have only the scientific side.

The third Latin-American Scientific Congress, which met under the auspices of the Brazilian Government at Rio de Janeiro in August, 1905, in response to the invitation of the Government of Chile, settled upon Santiago as the most fitting place for the assembly of the Fourth Congress, in December, 1908.

The first of these Congresses was called by invitation of the Argentine Government, and met at the city of Buenos Aires in 1898, and the second, on invitation of the Uruguayan Government, at the city of Montevideo in 1901.

The purpose of the Scientific Congress, broadly stated, is the bringing together of advanced thinkers in all lines of scientific research for the discussion of the numerous problems confronting modern

civilization, and particularly of such as, through their elucidations, tend to the national and social betterment of conditions in the countries represented.

In each Congress following the first at Buenos Aires there has been a broadening in purpose, a fuller discussion of topics presented for consideration, and a larger representation from the various countries. But it has been left for the committee appointed by the Chilean Government on organization of the coming Congress at Santiago to still further broaden and enlarge the scope and purpose of the assembly, constituting it a Pan-American instead of a Latin-American Congress. The Government, institutions of learning, and scientific bodies in the United States were invited to take part in this notable gathering together of the leading students and thinkers of all America. The United States Government has responded by the passage of an act of Congress authorizing the Secretary of State to appoint delegates representing the United States to this Congress and appropriating for their expenses. The institutions of learning invited to send representatives were the Universities of California, Chicago, Columbia, Cornell, George Washington, Harvard, Illinois, Johns Hopkins, Michigan, Minnesota, Pennsylvania, Princeton, Texas, Wisconsin, and Yale. It will be seen from the list of United States Government delegates published above that the Universities of California, Columbia, Harvard, Pennsylvania, Wisconsin, and Yale are represented in the delegation appointed by the Secretary of State under the act of Congress. It is understood that the remaining universities invited will send representatives, although their names have not yet been announced.

At the Rio Scientific Congress one hundred and twenty papers were read and discussed by delegates from fourteen of the Latin-American countries. In the coming congress at Santiago the topics of discussion are grouped under nine headings: (1) Mathematics; (2) physical sciences; (3) natural, anthropological, and ethnological sciences; (4) engineering; (5) medical science and hygiene; (6) juridical sciences; (7) social sciences; (8) pedagogy and philosophy, and (9) agronomy and zootechnics. This arrangement of the topics does not differ very materially from that adopted at the Rio Congress. Juridical and social science were classed together at Rio under one heading; at Santiago there will be two separate sections, and social science is made the most prominent section of the nine, 40 per cent of the subjects of discussion being grouped thereunder. Instead of, as at Rio, a separate heading for natural science and another for anthropology, the two are grouped at Santiago in one section together with ethnology. The two sections, medical and surgical science and public health, are also brought together under one heading, medical science and hygiene.



FIRST MEETING OF THE UNITED STATES DELEGATION TO THE FIRST PAN-AMERICAN SCIENTIFIC CONGRESS, TO BE HELD IN SANTIAGO, CHILE, DECEMBER, 1908.

(1) Prof. Paul Reclus; (2) Prof. Arehild C. Coolidge; (3) Prof. Hiram Bingham; (4) Prof. William B. Shepherd; (5) Prof. L. S. Rowe; (6) Secretary Edmund Ross; (7) Mr. William H. Holmes; (8) Mr. George M. Rommel; (9) Col. W. C. Grogan; and (10) Mr. Francisco J. Yanes, Secretary of the International Bureau of the American Republics.

(Harris-Ewing Photo.)

However, in the particular subjects for discussion under the main heads there has been a very considerable broadening, which is particularly noticeable in the seventh section, social science.

At Rio forty-one themes were proposed and twenty-six papers were read and discussed under the heading juridical and social sciences; at Santiago two hundred and five themes are proposed under social science alone. Some of the subheadings in this section are: American history, international law, diplomatic history and international policies, political economy, finance, social economy, criminology, literature, fine arts, and universities. Under the head of international policy such themes as these are proposed:

What are the best means, along political and economic lines, of strengthening the relations of friendship among the American nations?

Bases on which Pan-American diplomatic and scientific congresses should be organized in order to strengthen the bonds of solidarity among the countries of this Continent.

Means which the American nations might employ in order to properly assimilate immigrants to the native element.

The advisability of introducing the referendum. Results following reforms introduced in American countries for the purpose of affording the people a more direct participation in public affairs. Legal and political status of aborigines.

Under political economy in its application to the workingman are proposed such themes as:

Laborers' dwellings; cooperative building associations; homesteads.

Laws to protect women and children in industrial labor.

Minimum wage in industries.

Cooperative loan associations; savings banks; relief societies.

Labor exchanges; compulsory insurance.

Industrial schools; social education; labor unions.

One of the most important sections is that of engineering, in which twenty-seven themes are proposed, among which are:

Plans and gauges of intercontinental railways.

Technical Pan-American terminology.

Supply of potable water.

Distribution of irrigation water; adoption of a Pan-American unit of measure or gauge.

Reinforced concrete construction.

Railway-car lighting.

Processes for concentration of ores.

Use of tertiary coal in general metallurgy and in the manufacture of coke.

Chilean nitrate, machinery and systems for its exploitation.

Use of natural nitrate in metallurgy and in manufacture of soda and nitric acid.

Among the subjects proposed in the section of agronomy and zootechnics are:

Preparation and improvement of soils; irrigation, drainage; fertilizing and manuring.

Agricultural machinery.

Industries associated with agriculture, such as milling, brewing, distilling.

Planting of dunes.

Reforestation of hills and mountains.

Machinery for arboriculture, horticulture and allied industries.

Viticulture and vinification.

Vegetable pathology.

Work by domestic animals.

Production of meat, fat, milk, butter, cheese, and wool.

Slaughterhouses; refrigerators.

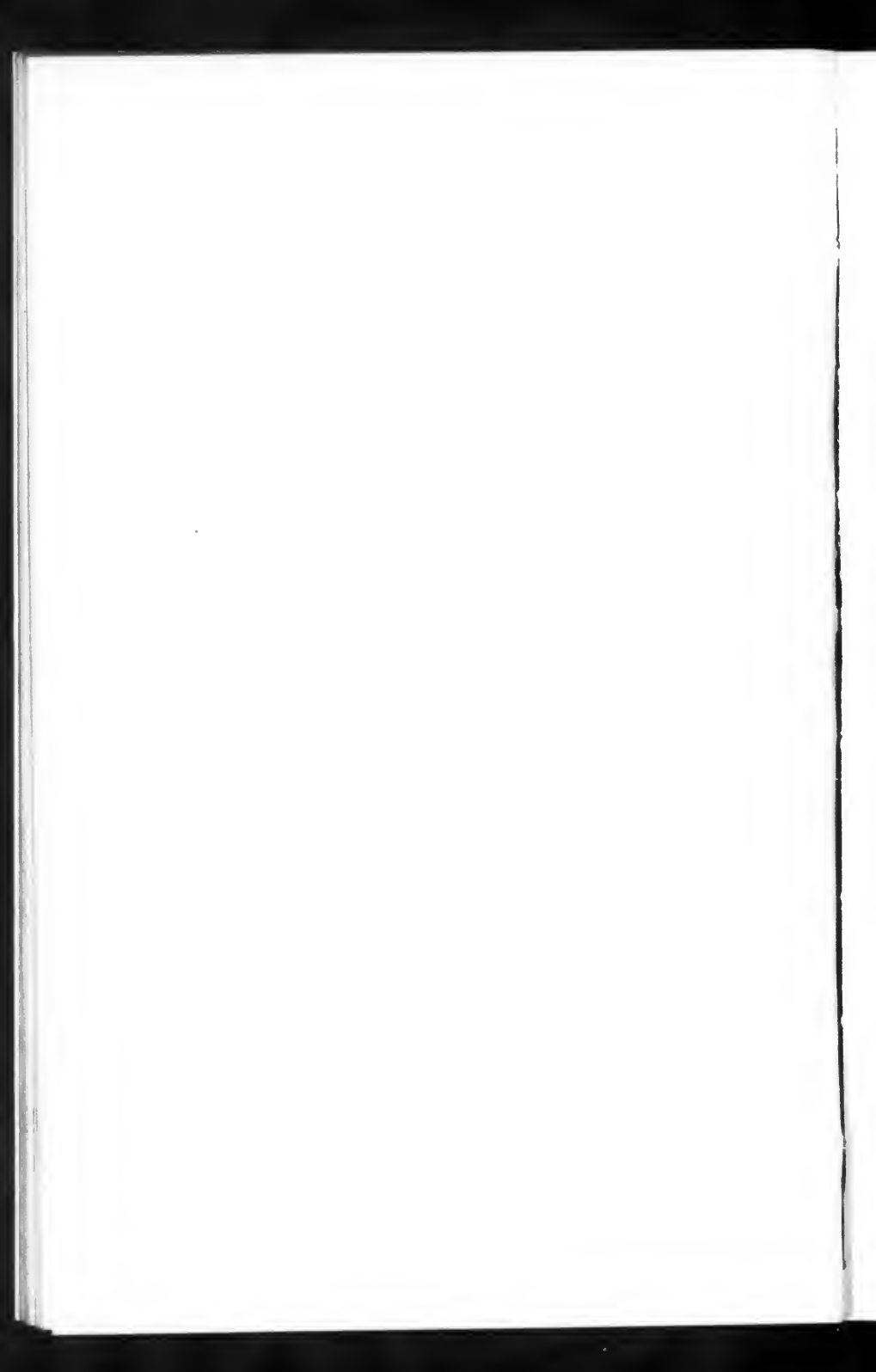
Machinery for elaboration and conservation of animal products.

Poultry; agriculture; sericulture; pisciculture; parasitical and contagious diseases of domestic animals.

Rural construction.

Economic elements in agricultural production.







THE GREAT NITRATE FIELDS OF CHILE.

The nitrate fields of South America exported in 1830, the first year of the industry, 8,348 tons of crude mineral. Chile, to which Republic these fields now belong, exported, in 1907, 1,833,800 tons. Between these two dates the history and development of one of the great natural products of the Western Hemisphere must be studied.

The saltpeter, or nitrate, zone embraces the extension comprehended between the Camarones River in south latitude $19^{\circ} 11'$ on the north and parallel 27° to the port of Caldera on the south, a distance of 450 miles from one end to the other. The interval separating the deposits from the coast varies. They never come close to the sea—in the northern part the sea is only 15 miles away, in the southern part it is 93 miles away. These deposits in the Province of Tarapaca occupy the small folds and the gently rising hills extending from the west of the pampas of Tamarugal, but to the south of the Loa River they follow no lode, being found in the midst of the great pampas as well as in the folds of some of the hills. Neither are the deposits found on the lower levels of the western slope of the Andes; they lie at an altitude of from 3,600 to 13,000 feet above the sea. But, fortunately, this is no obstacle to mining or transporting the finished material, because the hills and mountains along this coast come precipitously close to the water, so that, even where railroads are in service,

from the heights at which the nitrate fields are situated the bags containing the commercial nitrate can be shot by the force of gravity to the dispatching warehouses in the harbors. This region, the nitrate zone, is as barren as any place on earth; it is one of the paradoxes of nature's laboratory, because no living thing can find nourishment here, although from these very nitrates nourishment is given to impoverished soils all the world over.

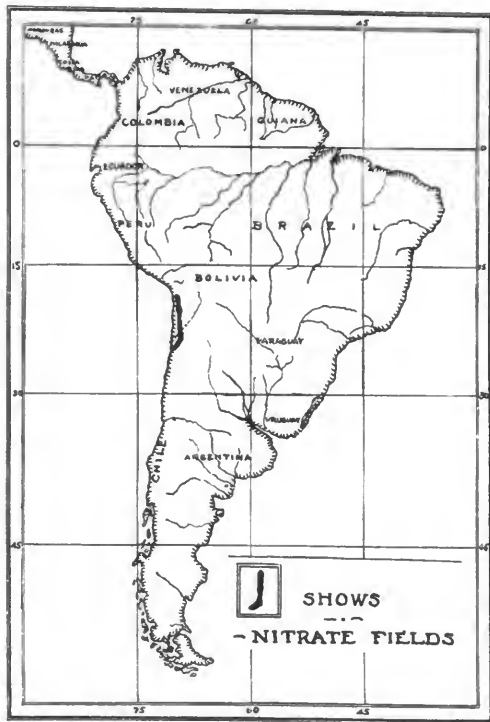


FIG. 2.—Nitrate fields.

The climate, on the other hand, is delightful. Although it rarely rains on the nitrate desert, it is neither oppressively hot nor cold, so that natives and foreigners alike find life agreeable and healthful so long as they trust to nature and the simple foods, which must be brought hither from outside the zone.

Along this stretch of 450 miles of nitrate coast are many of the best-known ports of Chile. First, at the north, comes Pisagua; then Jumin, Caleta Buena, Iquique, Tocopilla, Mejillones, Antofagasta.

Coloso, Taltal, with Caldera at the extreme south. The nitrates from the Province of Tarapacá are shipped through the ports of Iquique and Pisagua, while the product of the regions farther south seek the nearest ports. Not one of these offers safe, natural anchorage, but each has been selected altogether on account of its availability as a shipping place for nitrates. Vessels lie in the open roadstead, and the cargoes are lightered out to them in the native way devised many years ago, but which modern mechanical skill will not be able to supersede until breakwaters and piers allow these vessels to approach closer to shore. The cargoes brought to these ports are extraordinarily miscellaneous, because, since nothing is produced in this region, everything must therefore be imported. Coal is probably the larger portion of the freight; but in addition all necessaries like food, both canned and fresh; all liquids, even water to quench thirst and to

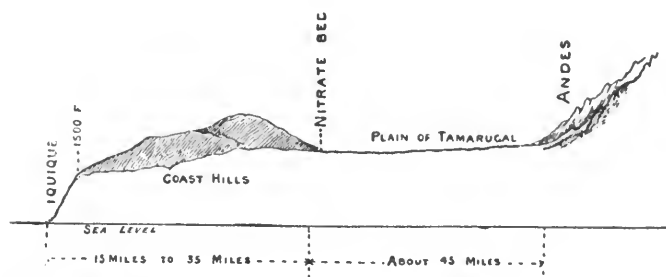


FIG. 3.—General east and west section of the nitrate district of Chile. Vertical scale exaggerated.

extinguish fire; all clothing and building material; all luxuries and decorations; even the soil from which spring the pretty trees and flowers in the plazas and patios, must be imported, both to sustain life and to make it endurable. These are the loads carried into the nitrate ports, and, with the exception of a small proportion of the more precious minerals—gold, silver, and copper—mined also in this zone, nothing is produced that can be carried away but nitrates.

The saltpeter in these nitrate deposits is found mixed with other substances, in which generally common salt predominates, but the conglomeration is usually, besides this, clay, gravel, and sulphate of soda. There are four strata recognized in the fields, although the composition of each varies from location to location. The uppermost layer is called *chuca*, and consists of the surface accumulation of the ages; the second layer is called *costra*, which is firmer in consistency,

thicker than the *chuca* above, and much harder to penetrate. Below this *costra* is found the *caliche*, the real, natural deposit of nitrate of soda, which may be almost pure chemically, but which is considered commercially valuable if it runs above 30 per cent of the salt.

The origin of these deposits of nitrate has been for years a matter of speculation and theory; but no one theory explains with complete satisfaction how or why nature selected such an immense area here, and apparently nowhere else, for such a dense accumulation of mineral wealth. It has puzzled geologists and meteorologists alike, but the owners of the fields and the Government of Chile are content to



FIG. 4.—The nitrate

accept the facts and to leave the theory to the fancy and imagination of the learned.

Below the *caliche* is the lowest stratum of bed rock called *gora*, from which the first step of the mining operation is conducted. The method of extracting *caliche* is extremely simple when compared with the elaborate machinery necessary in obtaining other minerals. A *cata* or small shaft is sunk through the surface deposits and through the *caliche* to the bed of clay or gravel, the *gora*. Here a hole is scooped out, in which a small boy places a charge of powder or dynamite. This is exploded. The resultant débris is divided into masses

that may be used for building material or such indifferent work, while the *caliche* is collected by itself, placed in mule carts and driven to the factory, or *oficina*.

The *caliche* itself is a combination of nitrate of soda, varying from 14 to 75 per cent or more; sulphate of soda, sodium chloride, iodine salts, small proportions of potash, magnesium, and lime, with insoluble matter. With the exception of the iodine, and in some cases the common salt, these being saved as by-products for other purposes, the entire industry of the *oficina* is devoted to the preparation of the nitrate in such a form that it may be economically exported. The



port of Taltal.

caliche is first crushed, and it is then run into huge boiling tanks, where the salts are dissolved, the sand and other refuse sinking to the bottom. Fortunately, the nitrate has a different point of solubility from other salts, and can, therefore, be precipitated by itself as the water cools. When it has crystallized in large cooling pans or vats, the dry nitrate is put up into bags and dispatched for shipment.

These *oficinas* are establishments thoroughly well equipped with modern machinery and chemical laboratories for the scientific production of nitrate. Each *oficina* stands in the midst of the field from which its *caliche* is obtained; it is a collection of buildings, above

which rises a smokestack, but all, the crushers, the boiling tanks, the settling vats and other quarters, being devoted to a single purpose. An important part of this complicated process, but one subordinate to the main desire to secure as much nitrate as possible, is designed for the preparation of iodine from the nitrate liquor. Iodine is a constituent, in most fields, of the *caliche*, and has a recognizable commercial value, although the demand is limited and the supply can be furnished from other countries than Chile.

An interesting feature of the *oficinas*, as well as of the towns lying within the nitrate belt, is the persistent determination to make them attractively habitable for those who must spend a greater portion of their lives there. In the early days of the industry water was brought

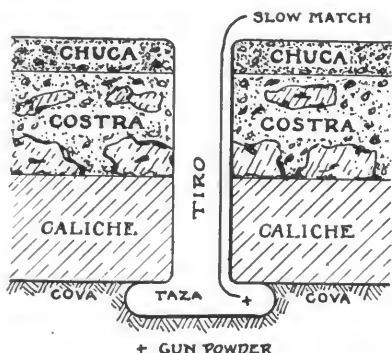


FIG. 5.—Section of a "Tiro"—ready for blasting.

in pails by coasting vessels up and down the Pacific; later it was piped from sources in the Andes; but to-day, wherever the supply is too costly or uncertain, water is distilled from the sea. Nothing grows indigenously here, but the traveler will notice plazas, patios, and potted plants, even grass at times, at every port and *oficina*. This miracle is accomplished by the im-

portation of all ingredients for horticulture; the earth itself has been carried here to make a soil foundation, and the people cherish these exotics with the utmost devotion. Chile has frequently been dismayed at the fear that the supply of nitrate would become exhausted. This would mean not only a disturbance of chemical conditions throughout the world, but also a disastrous fall in the income the Chilean Government derived from the export tax placed upon this product. Certain calculations made a few years ago demonstrated that, so far as the region of the Province of Tarapacá was concerned, assuming the steady increase in consumption which has marked the spreading knowledge of the use of nitrates, the supply could scarcely last through the next thirty-five years. It was estimated that 100,000,000 tons of nitrate were then unmined; the annual exportation has practically touched the mark of 2,000,000 tons, and is continuously increasing, so that an easy problem in arithmetic shows how close the end is. Yet there are several factors at work to dispel this dismay. The first and most important is the fact that it has been definitely determined that

nitrate is by no means limited to Tarapacá; in the Provinces of Antofagasta and Atacama hitherto unexplored beds of nitrate have been discovered. These beds are said to be capable of furnishing 1,500,000,000 tons additional. This supply, with the fields already exploited, makes available a total of 1,600,000,000 tons, and assuming the world's consumption to be annually 5,000,000, which will probably be the normal demand within a few years, there will be



FIG. 6.—Explosion in caliche bed.

enough to last for over three hundred years. The second factor is the more refined methods introduced by modern chemistry into the industry at the *ofcinas*. In early years the crude *caliche* itself was used at home and exported; later, when its value was found to lie in the nitrate constituent, it was found cheaper and more profitable to extract the salt on the spot, even if much of the mineral was lost. To-day, a product of 95 per cent pure nitrate is sent from the *ofcinas* to be shipped abroad. This extremely high percentage,

however, came from *caliche* which in itself contained at least 14 per cent and usually not less than 50 per cent of nitrate of soda.



FIG. 7.—Caliche ready for transport to oficina.

Every year new methods are tried and introduced to obtain equally good results from low grade *caliche*. Claims are made that a 7 per



FIG. 8.—Caliche at the crusher.

cent ore can be profitably mined and refined. There is no doubt, therefore, that all the nitrate rock in the Chile desert will, as the

demand increases, be available for commercial uses. The third factor in the nitrate problem is the determination, on the part of Chile as well as on the part of the owners of nitrate concessions and fields,



FIG. 9.—Administration Building.

to do everything reasonable and warrantable to conserve the supply so that demand and output balance each in a normal way.



FIG. 10.—Machinery used in preparing the nitrate and iodine.

The Government of Chile has for years placed a tax upon the export of this natural product. This tax is now at the rate of \$0.438 gold per 101.41 pounds. Chile has laid this tax since the year 1880, and

has derived from it the sum of \$280,000,000 gold, up to 1904, without taking into account the revenue from iodine or the sale of nitrate



FIG. 11.—Nitrate pans.

lands. In addition to this tax, which naturally Chile is anxious to retain, the Government restricts the distribution of new lands and is



FIG. 12.—Train load of nitrate.

cautions about the lessees or purchasers who are to have the benefit of them. Special laws are issued to protect this one-time wilderness,

and what, eighty years ago, any one could have had for the asking and be laughed at for his pains, is now held so precious that only properly accredited concessionaires can have the privilege of occupying it. With this output restricted by the Government, and allowing for a 10 per cent increase in consumption every five-year period for the next twenty years, the tax will have yielded to the Government by the close of 1923 the sum of \$400,000,000 gold, a steady source of income of which any country in the world ought to be proud. This assumes, of course, that nitrate will not be discovered in any other deposits sufficient to offer competition to those in Chile, and that science can not develop some method by which nitrates (or nitric acid) may be derived from some such inexhaustible supply like the at-



FIG. 13.—Dissolving nitrate from crushed caliche.

mosphere. But neither danger is close enough to threaten the industry as established here.

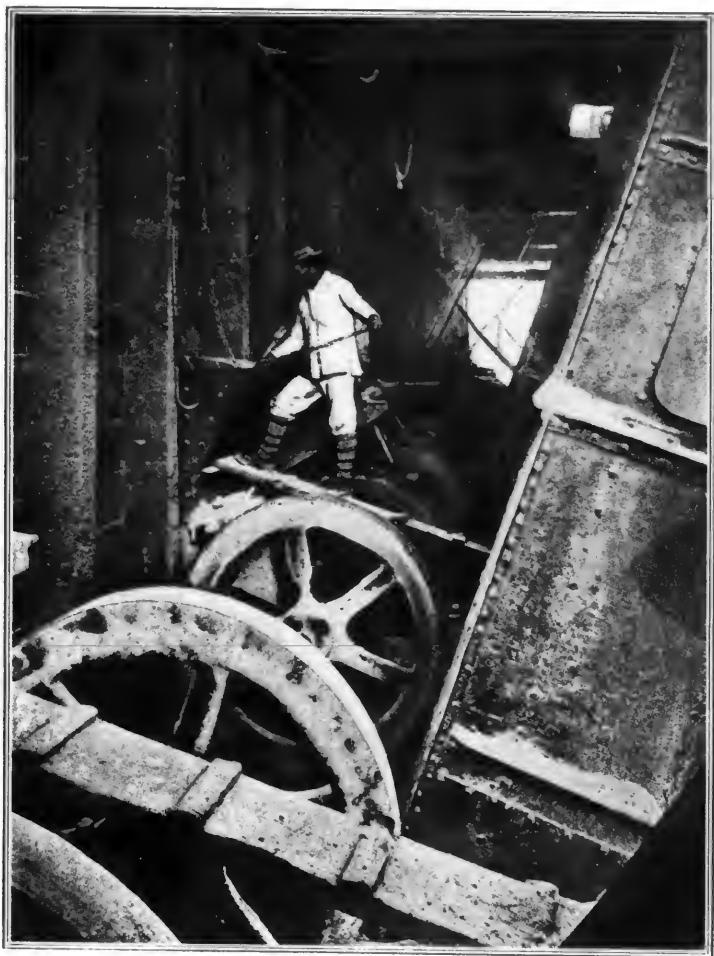
Partly for the protection of its members and partly in support of this enlightened policy of the Government of Chile, the association of nitrate producers has been formed. This *Asociación Salitrera de Propaganda*, as it is called, has a double purpose. It hopes to keep the production of nitrate within limits set by itself, according to which scheme only just sufficient salt will be annually mined to meet the world's demand at the price best suited to yield a commendable profit. Of the 100 or more *oficinas* in the association, each pledges itself to produce only its quota of nitrate allotted at the beginning of the year by the association. The association attempts thereby to keep the price commensurate with the restricted output. Whether this

method will be successful in the long run is one of the complicated questions of modern finance debated on all occasions by the student of trust economies. The association ended its first five year's compact in 1907, and another has been formed, but the time has been too short to bring a definite decision as to its effectiveness.



FIG. 14.—Machinery In the Oficina.

The subjoined charts illustrate how rapidly the production of nitrate of soda from the Chilean fields has increased. Undoubtedly a much greater quantity could be mined if there were no monopoly or if miners were allowed to rush in indiscriminately to attack the deposits wherever found. At present the industry seems well controlled both by the State and by the association, both making



CRUSHING MACHINERY.

careful studies of the world's markets and future possibilities for consumption.

The second phase of the association's purpose is to spread a knowledge of the sources of nitrate of soda, of the essential value of nitrogen compounds in the arts and in all industrial processes, and especially to extend in every direction among those whose business it is to deal with products of the soil a better recognition of the fact that no soil can forever maintain a highly productive capacity. That is to say, any soil will, after a time, decrease in commercially productive value. Soil must be nourished before paying crops can be grown. If the soil does not find this nourishment from the environment it must be artificially supplied. The three essential soil and



FIG. 15.—Workmen in a nitrate plant.

plant foods are potash, phosphorus, and nitrogen. At present the only available supply of nitrogen is from the nitrate of soda fields in Chile.

The English, at the beginning of the exploitation of the nitrate fields, were the first to learn the practical value of the salt as a fertilizer: they for years absorbed the entire output, and their business men purchased the mines. Germans, who later on, through laboratory experimentation, grasped the situation, dissatisfied at the English control, made purchases for themselves, so that to-day the immense industry is in the hands of these two nationalities. Of course this does not influence the market or the ultimate destination of the

product, because the propaganda must be universal in its significance and application. The absorption has been, for some years, in about

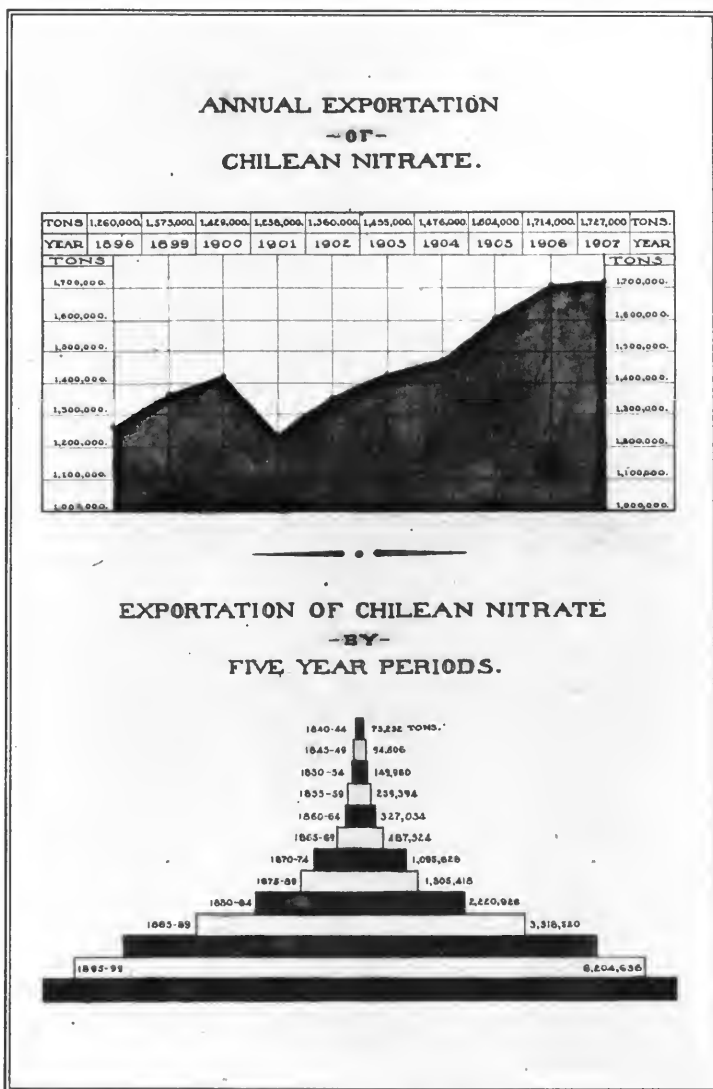


FIG. 16.

the following ratio: England taking 40 per cent of the output; Germany, 20 per cent; the United States, 20 per cent; France, 10

per cent. and other countries the remaining 10 per cent. The consumption in the United States is slowly but steadily rising. The

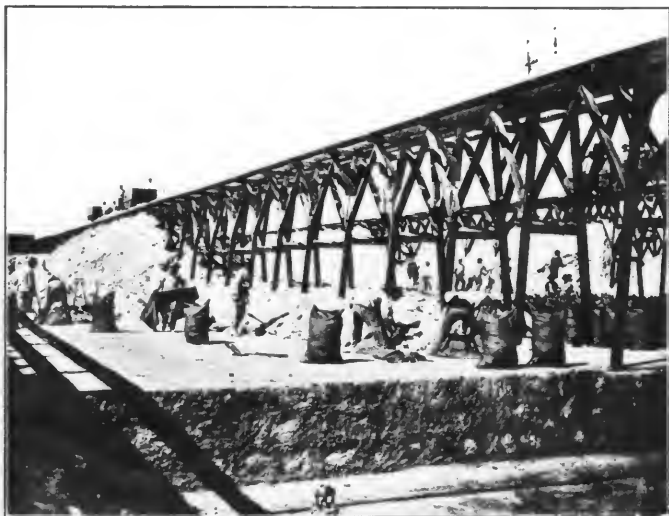


FIG. 17.—Packing nitrate into bags.

Department of Agriculture of the United States, the national and State experiment stations, the commercial fertilizer companies, and



FIG. 18.—Getting ready a nitrate train.

progressive farmers are learning the value of Chilean nitrate. The product is shipped to Egypt, Japan, the Hawaiian Islands, Australia,

Holland, Belgium, Italy, and Spain. The Argentine Republic is beginning to use nitrate on the wheat acres, which it was thought at first never would need fertilization.



FIG 19.—Wheat from fields—(a) without nitrate, (b) with nitrate.

Plants can make use of nitrogen only when it is present in the soil in the form of nitrates. Nitrate of soda is the only fertilizer containing nitrogen in the nitrate condition, and consequently is the most available food of this kind to give to plants. The method

of using it, however, is a matter of careful technique for the agriculturist to learn by both study and experiment. The United States Department of Agriculture has found good results in growing asparagus, tomatoes, cabbage, celery, turnips, peppers, hay, wheat, rye, and forage crops. Various State experiment and agricultural stations have advocated nitrates for sugar beets, onions, the olives, citrus fruits, tobacco, and forest trees. Undoubtedly as knowledge advances the use of nitrate of soda will be extended even further in this direction, and intensified agriculture in this country will be as definite a field of profit as it is in Belgium.

The nitrate salt as exported from Chile has other uses besides that in giving food to plants. Its chief additional value, however,



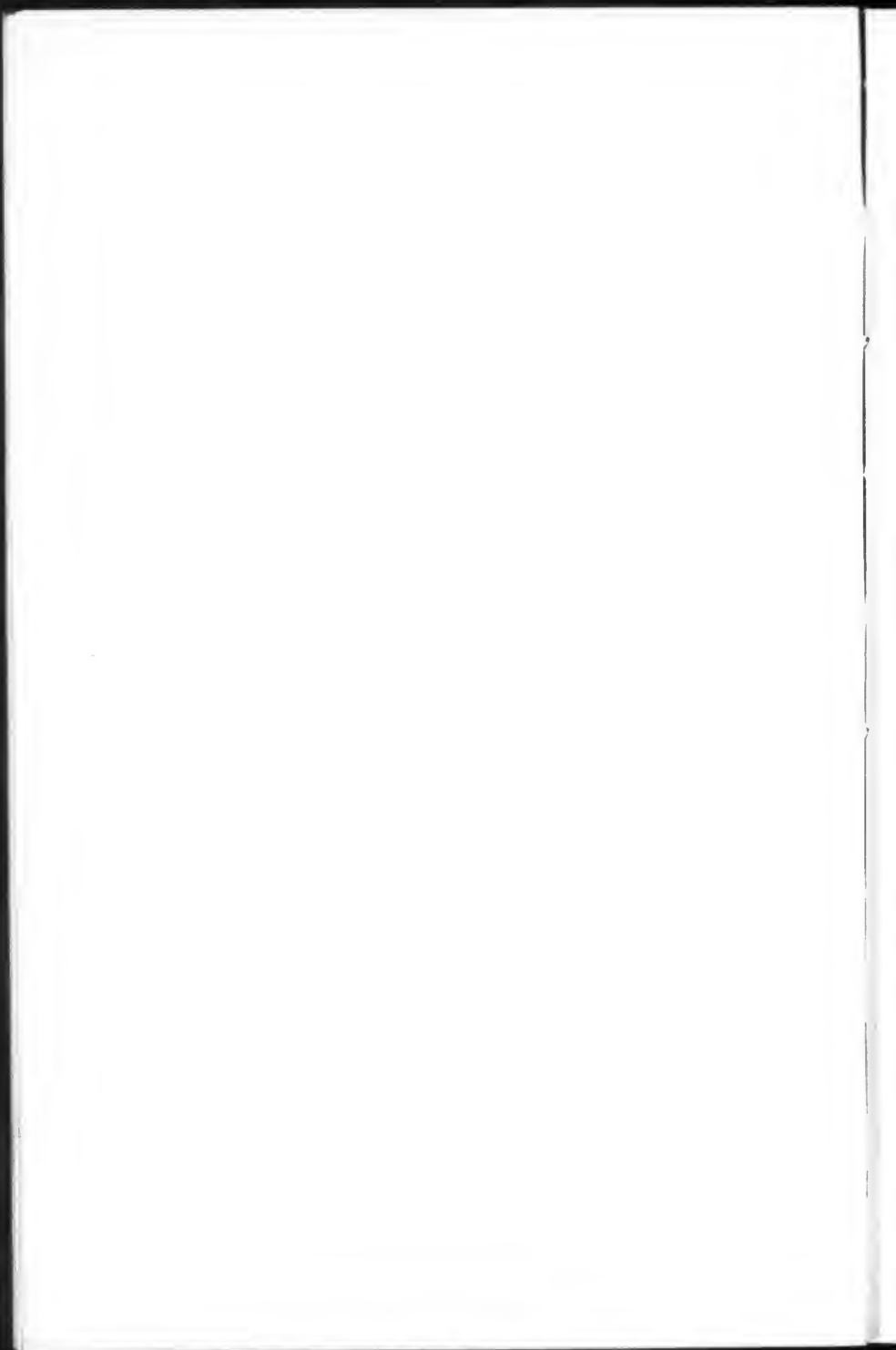
FIG. 20.—Bags of nitrate ready for shipment.

is in the manufacture of nitric acid, which is an essential in many industrial arts, but especially in the manufacture of nitro-explosives and smokeless powders. About $2\frac{3}{4}$ pounds of sodium nitrate are required to manufacture 1 pound of nitrocellulose. In the United States alone, in 1900, over 3,000,000 pounds of smokeless powder were manufactured, and the total of this product is growing rapidly. It may be seen, therefore, how enormous must be the consumption of the salt, and how dependent the world is upon the supply from Chile.

What effect the completion of the Panama Canal will have on the shipping of nitrate can be determined only when that waterway is actually open to navigation. Iquique, the great nitrate port, is

2,267 miles from Panama, or 4,296 miles from New York, and 7,015 from Liverpool. Approximately speaking, the gain to Europe of the Panama route over that round the Horn is 3,000 miles. Nitrate is "dead freight." The United States merchant marine should apply to this case the lesson of international commerce by sending return freights of merchandise for the nitrates received from Chile.





LATIN AMERICA IN 1907

A REVIEW

The year 1907 was marked by events of great importance in the history of Latin America, but probably no single happening was so influential in establishing its claim to rank with the great centers of human development as participation in the Second Peace Conference held at The Hague during the summer of that year. The former colonies of the Old World took their place as political entities under international law in this conference of sovereign states, their representatives doing honor to the invitation through their learning, statesman-like qualities, and their integrity of purpose.

Another peace conference, apparently more limited in its scope but in reality of great significance to the Western Hemisphere, was that held in Washington in December, through the initiative of the Governments of Mexico and the United States, when the various countries of Central America met in friendly council for the discussion of their international questions. The conventions agreed upon for the maintenance of concord and the advancement of their mutual interests have since been approved by the interested Governments, and are an earnest of progress and friendship.

Growing out of this conference, the organization of the Central American Fraternity is a step of peculiar sentimental value in the development of closer relations between Central America, Mexico, and the United States, while the opening of the Central American Court of Justice in Costa Rica is a practical application of the great principle of international arbitration.

Relations between the United States and the Republics to the south have never been on a more cordial footing, abundant evidence of which was given in the honors showered upon the Secretary of State of that country during his visit to Mexico, and in the enthusiastic welcome accorded the fleet in its famous trip around South America, when the Governments and peoples of Brazil, the Argentine Republic, Uruguay, Chile, Peru, Panama, and Mexico demonstrated their friendly feeling, both in the warmth of their greeting and the splendor of entertainment.

The holding of scientific congresses and the inauguration of national and international expositions all testify to the world-wide interest in Latin-American affairs, while tours of experienced travelers and writers have enabled a record to be made of the continued industrial and economic development of the Republics.

No more effective agent in this development is known than railroad building, as is demonstrated by the increased trade following upon the opening of the Tehuantepec line across the Republic of Mexico early in the year and enthusiasm attending the completion of the Guatemala transcontinental road in the last month of 1907. The Pan-American Railroad, which is to link together all the countries of the Western Hemisphere, is making satisfactory progress, and the completion of the Panama Canal will be another factor in the promotion of trade.

The total trade volume of all America, exclusive of British Possessions, aggregates (in round numbers) \$5,500,000,000, in which imports figure for \$2,500,000,000 and exports for \$3,000,000,000. In this total the share of the United States is \$3,500,000,000, composed of imports, \$1,500,000,000, and exports, \$2,000,000,000; and that of Latin America, over \$2,000,000,000, imports being credited with \$1,005,503,000 and exports, \$1,071,955,000.

An analysis of Latin-American trade figures divides the total between South America, with \$1,534,958,000, composed of imports worth \$733,570,000 and exports \$801,388,000; Mexico, \$240,690,000, in which imports figure for \$116,681,000 and exports for \$124,009,000; Central America, \$71,114.00, and the Republics of Cuba, Santo Domingo, and Haiti, \$229,696,000.

Trade between the United States and Latin America during the calendar year 1907 was represented by \$558,279,201, composed of exports worth \$240,553,068 and imports, \$317,726,133, as compared with \$521,341,077 in 1906 and \$493,669,785 in 1905. An increase of \$36,968,124 is thus noted in the latest period recorded, as compared with the preceding twelve months.

Trade values with Central America during 1907 aggregated \$45,087,355, against \$38,690,379 in 1906, showing an increase of \$6,396,976. Mexican and United States trade values for the two periods amounted to \$124,698,413 and \$114,273,188, respectively, the increase for 1907 being \$10,425,225.

Trade between the United States and Cuba was represented by \$144,973,116 in 1907, against \$131,544,878 in the preceding year, thus showing an advance of \$13,428,238 in the later year. The small increase of \$63,518 is noted in the trade with Haiti, the figures for 1907 and 1906 being \$4,366,273 and \$4,302,755, respectively. Conditions were somewhat better with regard to the Dominican Republic, the increase in 1907 over 1906 amounting to \$124,976, the valuations for the two periods being \$5,860,693 and \$5,735,717.

All of South America (including the Guianas) figures for \$233,293,351 on the trade lists of the United States in 1907, against \$226,764,160 in 1906, the increase of \$6,529,191 being largely accounted for

by increased exports to Brazil, which took United States products valued at \$4,452,191 more than in 1906.

The values of fifteen leading products exported to the United States from Latin-American countries during the year were: Sugar, \$69,282,630; coffee, \$68,585,507; rubber, \$33,758,632; copper, \$19,427,317; tobacco, \$16,154,830; fibers, \$15,915,854; nitrate of soda, \$14,844,675; hides of cattle, \$10,387,426; fruits, \$7,181,152; wool, \$6,098,727; goatskins, \$5,677,484; cacao, \$5,529,791; lead ore, \$3,139,253; quebracho, \$2,575,057; iron ore, \$2,522,710.

The values of the fifteen leading manufactured products received from the United States by Latin-American countries were: Iron and steel manufactures, \$57,720,562; wood manufactures, \$25,384,615; cotton manufactures, \$11,313,719; carriages, cars, and other vehicles, \$11,126,733; mineral oils, \$9,317,201; leather, and manufactures of, \$7,920,713; chemicals, drugs, dyes, and medicines, \$6,064,428; agricultural implements, \$5,264,198; scientific instruments and apparatus, \$4,392,029; fiber, vegetable, and textile grass manufactures, \$2,907,403; gunpowder and other explosives, \$2,795,093; paper, and manufactures of, \$2,533,621; naval stores, \$2,152,742; copper manufactures, \$1,447,396; books, maps, and engravings, \$1,238,437.

ARGENTINE REPUBLIC

A survey of the Argentine Republic covering 1907 shows a continuation of the prosperous conditions noted in the preceding year, President ALCORRA remaining the Chief Executive. The figures of foreign commerce show an increased valuation of nearly \$20,000,000 and a balance of trade in favor of the Republic of more than \$10,000,000. Immigration statistics report 329,122 arrivals, and banking conditions improved.

In the capital, building operations for the year show an increase of over \$20,000,000 as compared with 1906, and customs receipts at Buenos Aires advanced nearly \$1,000,000. Record crops of wheat and linseed are reported to offset the comparative shortness of the maize production, and adequate preparations have been made by the railroads for handling them.

In connection with the general development of the country, the population increased to 6,210,428 in 1907, as compared with 3,954,911 in 1895; cultivated areas increased to 36,106,323 acres, a gain of 199

per cent; wheat areas to 14,233,158 acres, 181 per cent; linseed to 3,438,371 acres, 259 per cent, and maize to 6,747,175 acres, 119 per cent. The increase in live stock, though considerable, does not appear to be commensurate with the growth of cereal and linseed culture. The most striking progress is found in hog breeding, the number of animals having increased 335 per cent.

FOREIGN AFFAIRS.

Among the important diplomatic events of the year was the signing on September 18 of the general arbitration treaty between the Argentine Republic and Italy at The Hague by the delegates of the respective nations to the Peace Conference. The trade relations between the two countries are very close and of great importance, a number of Italian subjects having colonized in the Argentine Republic. Among the signers were Argentine citizens of Italian descent.

Relations with American States claimed preferential attention, particularly those most in touch with the Republic, and were drawn closer during the year. Treaties of various kinds are under consideration with Chile, each country having named a special commission to study the other's commerce and industries. Paraguay is constantly testifying to that country's professed friendliness toward the Republic, and various treaties have been entered into dealing chiefly with commercial interchange. Both countries are jointly taking measures for dredging the River Paraguay, rendering it navigable for large craft, and arrangement has been made for the exportation of cattle from Paraguay to the Chaco and Corrientes. Uruguay sent a distinguished commission of civil and military dignitaries to participate in the 9th of July celebration.

The Universal Postal Convention of Rome of 1906, together with the annexed protocols, was approved on October 10, and on January 17 the Argentine and Bolivian Governments exchanged in Buenos Aires ratifications of the railway convention celebrated on May 18, 1907, under the terms of which the Northern Central Railway is to be extended into Bolivian territory and a railway constructed from Potosi to Tupiza. The work of construction will now be pushed forward in conformity with the terms of this convention.

FINANCE.

The financial status of the country is shown by the fact that whereas an estimate of revenues for the year had fixed the sum at \$94,500,000, the receipts reached the total amount of \$105,500,000, or \$11,000,000 in excess of the anticipated returns. The public-debt service was administered with dispatch and ability, and funds to meet extraordinary and ordinary payments in Europe, including the

coupons for July, 1908, were deposited in the Argentine Legation at London, without recourse having been made to the available credit in the Bank of the Argentine Nation. The internal funded debt was reduced during 1907 by \$1,681,000, amounting at the close of the year to \$9,850,000 paper. The bank balances at the close of business on December 31 showed deposits of \$783,000,000, discounts and advances for \$764,000,000, and cash reserves for \$311,000,000, and the stock of gold in the "*Caja de Conversion*" was \$105,113,871, as compared with \$102,731,014 reported on the same date of 1906.



"PLAZA DE MAYO," BUENOS AIERS.

This square, also called "Plaza Victoria," is the principal one of the city. It is surrounded by the Government Palace, Legislative Hall, Cathedral, and other public buildings. The monument in the middle background commemorates the expulsion of the British forces from the city 100 years ago.

The revenue of the Buenos Aires custom-house amounted to \$114,968,855 paper and \$2,732,015 gold, an increase for the year of \$934,882 as compared with 1906. In all branches of internal revenue a correspondingly satisfactory report is made.

COMMERCE.

With a population of over 6,000,000 people, the Republic conducted a foreign commerce valued at nearly \$600,000,000, the total being

\$582,065,052, compared with \$562,224,450 in 1906, composed of imports \$285,860,683 and exports \$296,204,369, against imports \$269,970,521 and exports \$292,253,829 in the preceding year. In the distribution of imports by countries of origin the United Kingdom heads the list with \$97,935,743, followed by Germany, \$45,811,170; the United States, \$38,842,277; France, \$25,468,026; Italy, \$24,003,241; Belgium, \$15,896,850; Brazil, \$7,849,355; Spain, \$7,294,469; and Uruguay, \$2,472,754. As a receiver of exports the United Kingdom again leads with \$53,716,152, followed by France, \$37,762,046; Germany, \$36,423,056; Belgium, \$29,592,133; Brazil, \$14,018,431; United States, \$10,940,436; Italy, \$5,219,466; Spain, \$1,395,605; and Uruguay, \$1,376,638.

Of the total imports, \$38,842,277, or 13.6 per cent, were of United States origin, as compared with 14.62 per cent in 1906, while of exports the United States took \$10,940,436, or 3.7 per cent, against 4.56 per cent in 1906.

The principal articles imported from the United States were: Lumber, \$4,363,523; agricultural implements, \$3,558,759; illuminating oils, \$1,893,646; twine, \$1,720,001; wire, \$1,493,109; passenger and freight cars, \$1,267,248; builders' hardware, etc., \$680,781; furniture, \$518,194; lubricating oils, \$471,278.

The aggregate value of imports and exports during the year show an increase over 1906 of \$19,840,602, the balance of trade in favor of the Republic being \$10,343,686 gold. The value of imports increased by \$15,890,162 over 1906, the value admitted free of duty being \$102,461,572 gold, which, compared with that of the previous year, shows an advance of \$16,904,317. Imports subject to the payment of duties were valued at \$183,399,111 gold, showing a decrease of \$1,014,155 when compared with 1906.

The total export value was \$3,950,540 more than in 1906. The value subject to the payment of duties was \$1,808, or an increase of \$1,763, and those free of duty were valued at \$296,204,561 gold, showing an increase of \$3,948,777 gold.

The imports of gold and silver during the year in reference amounted to \$23,552,726 gold, or an increase of \$5,340,403 over 1906, while the exports were valued at \$3,133,886 gold, \$1,588,264 more than the previous year.

With the exception of a slight gain in mineral exports, the only export classification showing an increase is that of agricultural products, the status of the Republic in the economic world being accurately demonstrated by the fact that a gain of over \$16,000,000 is reported for the value of wheat shipments as compared with the year 1906, the total exports of this commodity figuring for nearly \$83,000,000. In flax or linseed a gain of \$10,165,360 is scheduled, and in oats an advance of \$3,593,397, so while the comparative failure of the maize

crop in the Republic caused a decrease of more than \$23,000,000 in regard to this item, the figures for the year being 1,276,732 tons and \$29,653,979, yet a total of \$164,091,621 is reported for exports of agricultural products alone, which represents a gain for the year of \$6,436,929.

While pastoral products declined as a whole in quantity and value exported, it is noted that a gain of \$88,882 is reported for live stock, the total shipments being valued at \$3,158,856, two-thirds of which is to be credited to cattle. Articles manufactured from pastoral products also show a gain of \$2,344,492, the aggregate export valuation being \$10,802,634, in which tallow figures for \$4,806,835, or \$1,324,309 more than in 1906. The condition of the flour trade is indicated by the fact that shipments for the three years 1905, 1906, and 1907 were covered by 145,000, 129,000, and 127,500 tons, respectively.

As regards quebracho, the exportation of logs amounted to 246,500 tons, of which the United Kingdom received 175,000, while extract was shipped to the amount of 28,000 tons, of which the United Kingdom took 17,700 tons. There were also exported 38,800 sleepers, of which 34,100 went to Chile and 4,700 to Uruguay.

The principal increase in import values is under the head of "locomotion," and includes automobiles, steel sleepers, railway material in general, locomotives, tramway cars, etc.

The value of automobiles imported was \$782,520, an increase of \$295,974; of steel sleepers, \$7,972,111, an increase of \$3,680,165; of railway materials, \$10,058,564, an increase of \$4,187,779; of locomotives, \$8,067,454, an increase of \$3,675,084, and of tramway cars, \$775,162, an increase of \$132,087.

In the classification of imports live stock, valued at \$2,035,913, showed a decline of \$490,698 as compared with the preceding year; food-stuffs, worth \$20,915,396, advanced in value by \$3,253,388, sugar alone showing a gain of \$2,701,468, more than one-half being unrefined. A considerable decline is noted as regards rice, raisins, and olives imported, due doubtless to increased culture of those articles. Tobacco imports of \$5,010,491 show a net increase of \$99,412, cigars and cigarettes advancing by \$250,000 and leaf tobacco by \$40,000, but tobacco specific for scab decreased by \$179,000. In the increase of \$839,700 (total, \$12,633,739) noted for wines, liquors, etc., champagne figures for \$110,000, vermouth for \$348,000, medicinal wine for \$124,000, and common wine in casks for \$99,000. Textiles which show the remarkable decline of \$6,796,848, with a total import value of \$47,333,191, are being more largely manufactured in the country, though silk ribbons and cravats increased by \$250,000. Building materials advanced by \$1,018,695, with a total valuation of \$23,020,393, and other items showing increases are wood and manufactures, paper



"PALERMO." BUENOS AIRES, ARGENTINE REPUBLIC.

One of the principal driveways of the capital, costing over \$10,000,000, and ranking among the great promenades of the world. This boulevard of royal palms is daily traversed by rich equipages and is a favorite drive for Argentine society.

and cardboard, agricultural implements, leather goods, drugs, and paints.

The per capita rate of imports was \$51.1, and of exports, \$53.4.

INDUSTRIES.

For both agricultural and pastoral industries, the year 1907 was a generally prosperous one for the Argentine Republic. The loss of about half the maize crop and the decrease in butter exports, taken in conjunction with the decline in the prices of hides and sheepskins, did not seem to seriously affect the general welfare. So far as maize is concerned its loss is amply compensated for by the record crop reported for 1908, and hides are recovering their normal status in the market.

The agricultural development of the country, though of great importance to the world at large, is peculiarly interesting to the United States because of annually increasing importance on the part of the Argentine Republic as a competitor in the cereal and meat trade with Europe. No other has so affected the corn exports from the United States, and rapidly extending wheat fields threaten an equally serious rivalry in that trade. The country now ranks sixth as a grower of wheat and second as a grain exporter.

The comparative figures showing the areas in hectares sown in the leading crops for 1906 and 1907, respectively, are as follows: Wheat, 5,692,171 and 5,759,987; linseed, 1,020,216 and 1,391,467; oats, 76,610 and 284,098. The area of lands cultivated with maize during the year was 2,730,500 hectares.

Official publication of the crop returns of the Republic for 1906-7 places the yield of wheat at 4,254,000 tons and of linseed 825,000 tons, a slight gain over the estimate. Of the total wheat crop, 1,300,000 tons were retained for home consumption and seed, leaving 2,900,000 tons available for export. The total exports of wheat in 1906 were 2,280,000 tons and in 1905, 2,866,954 tons, a record being then established. The estimated production of wheat in 1907-8 will have an increase of 1,239,000 tons (29 per cent) over that of 1906-7; that of flax, 259,000 tons (31 per cent); that of oats, 263,000 tons (146 per cent), and that of maize, 3,456,000 tons. Calculating on the above figures, the exportation may be estimated as follows: Wheat and flour, 4,250,000 tons; flax, 1,000,000 tons, and oats, 420,000 tons.

Rice is cultivated in the Provinces of Tucuman, Salta, Jujuy, San Juan, Santiago del Estero, and Misiones, the native production for the year being 28,600,000 pounds, and the total area under cultivation 10,000 acres. Figures for the first nine months of 1907 fix the imports in husk at 12,716 tons, valued at \$254,320, and 15,415 tons of clean rice, worth \$1,233,145. Rice in husk comes mainly

from the British possessions—10,197 tons being received from this source in 1906—while clean rice comes principally from Italy, which furnished 19,600 tons in 1906. Rice might be cultivated with advantage in the Province of Cordoba, and the islands forming the delta of the Parana are especially adapted for the purpose. The import duty, as at present established, is 25 per cent on a tariff value of \$20 gold per ton for rice in the husk and \$80 gold per ton for clean rice.

Live stock throughout the country, "calculated approximately on the basis of some provincial censuses and other references," is shown as follows: Cattle, 25,844,800; sheep, 77,580,500; horses, 5,462,170; mules and donkeys, 545,870; pigs, 2,845,700, and goats, 2,566,800.

The Province of Buenos Aires is credited with the possession of 7,000,000 head of cattle and 48,000,000 sheep; Corrientes has 6,000,000 of the former and 1,400,000 of the latter; Entre Rios has 3,000,000 and 5,340,000, respectively; Cordoba, 2,500,000 and 2,800,000; Santa Fe, 2,500,000 and 1,800,000. Of horses, Buenos Aires has 1,700,000; Salta, 725,000; Entre Rios, 590,000; Corrientes, Cordoba, and Santa Fe, about 425,000 each. Cordoba has 120,000 of the mules and asses, and Jujuy, 57,000. The goats are most numerous in Cordoba (850,000); San Luis has 420,000; Santiago del Estero, 340,000; Salta, Rioja, and Catamarca, about 200,000 each. Santa Fe has 2,000,000 pigs, and Mendoza, Santiago del Estero, and Entre Rios, about 40,000 each.

Cattle and sheep in the southern territories are increasing in numbers. The Pampa has 550,000 head of cattle and 7,000,000 sheep; the Rio Negro, 177,600 of the former and 3,620,000 of the latter; Chubut, 200,000 and 1,200,000; Santa Cruz, 100,000 and 3,000,000; Neuquen, 200,000 and 600,000, and Tierra del Fuego, 350,000 sheep.

For the year the various slaughtering and freezing establishments of the Republic report cattle slaughtered to the number of 931,048; sheep, 2,761,696; pigs, 12,261.

Imports of cattle cover 2,900 bulls, 3,950 sheep, 785 horses, and 111 donkeys. Of the cattle imported, 9 per cent were slaughtered, owing to tuberculosis, while of the 2,997,100 sheep inspected at Tablada, 45,554 were found to be suffering from tick and were condemned.

The ports were opened for the export of live stock in March, after having been closed for about twelve months. The trial shipment of steers to Chile resulted favorably, and reports from the various freezing establishments are in the main satisfactory. In June a controlling interest in the La Plata Cold Storage Company was obtained by the Swift Packing Company of Chicago, but without any resultant developments of note. The increase of duties levied by Brazil on salted-beef products in order to protect the Rio Grande trade has had its result in diminishing the shipments of this class of merchandise,

and export figures would indicate that this industry is gradually disappearing from the country.

Shipments of live stock were represented by 7,315 steers, 44,887 wethers, 3,759 horses, 1,145 mules, 227 donkeys, 19 pigs, and 4 goats. Imports of pedigree cattle numbered 1,303; sheep, 4,260; horses, 730; pigs, 942.

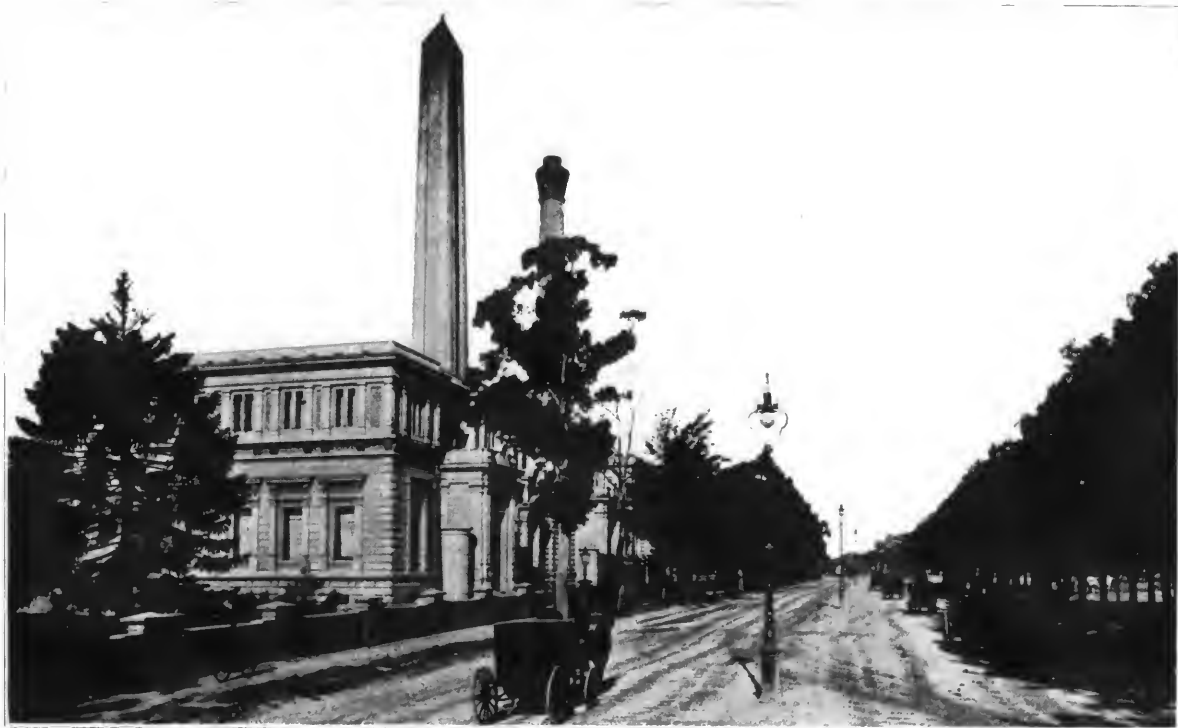
In the statistical year ending with September 30, wool shipments had been made to the extent of 385,137 bales, as compared with 406,994 bales in 1906. The countries receiving these exports were: Germany, 158,745; France, 151,708; United Kingdom, 44,988; United States, 20,260; Italy, 3,463, and various, 5,973 bales.

Another important export item is covered by ox and horse hides, of which the total number shipped in the first half of 1907 was 1,864,225, as compared with 1,981,717 in the same period of 1906.

In connection with the discovery of the evasion of port and quarantine laws on the part of certain individuals engaged in cattle importation into the Republic, governmental regulations in regard to this industry were issued, it being the intention of the Government to safeguard in every possible manner this important branch of its economic life, and the application of stringent measures was resolved upon to prevent a repetition of the introduction of tuberculous cattle or their unlawful treatment at quarantine. Imported food products from animals not domesticated—that is to say, game and fish—will hereafter be admitted into the Republic without accompanying certificates of inspection, and will only be subject to the inspection provided for by the laws of that country upon their arrival.

The development of manufacturing industries was quite satisfactory during the year. Dairies, flour mills, and refrigerating plants all show the natural progress incident to the immense areas devoted to camp products, while the culture of silk is expected to take rank among the profitable industries of the country within a short time.

The sugar industry did not entirely meet the demands of local consumption. This fact was due to the loss of a part of the cane crop on account of the great frosts in June, as happened also in 1906. There are at the present time 47 sugar refineries established in the Republic, of which 34 are in Tucuman, 1 at Santiago del Estero, 2 in Santa Fe, 1 in Corrientes, 2 in Salta, 3 in Jujuy, 1 in Formosa, and 3 in the Chaco. The cane milled in Tucuman Province during the year was 1,403,817 tons, producing 91,151 tons of sugar. In 1906 the cane treated was 1,671,338 tons, with a yield of 100,745 tons, equivalent to 6 per cent, while the percentage of yield for the 1907 crop was 6.55 per cent. The industry has been given every stimulus, such as export premiums, high protective tariff, etc. Thus encouraged, the production gradually increased, until in the year 1901 it reached 165,341 tons, of which nearly 52,000 tons were ex-



WATERWORKS, BUENOS AIRES.

The water supply is taken from the River Plata, 5 miles above city, and conducted through a tunnel to the pumping station where it is forced into clarifying reservoirs. The daily consumption per capita is 33½ gallons.

ported, while only 307 tons were imported and 101,513 tons consumed in the country. A few years later the export premiums were abolished in accordance with the resolutions of the International Sugar Convention held in London, to which the Argentine Government adhered. Thereupon the exports gradually dropped, until in the year 1905 they amounted to only 2,129 tons, the total production for that year being 137,091 tons, while the home consumption increased to 120,921. There was then a surplus of some 25,000 tons, and the sugar planters clamored for some legislation restricting production, which the Government complied with. Thus restricted, the production amounted to only 118,817 tons in the year 1906, of which practically none was exported, while 3,218 tons were imported. The consumption having, however, increased to 126,133 tons, there was a considerable shortage, which was covered by importation.

As the import duties had been maintained, the price of sugar was very high—in fact, higher than at any other time during the last ten years—and the Government issued a decree reducing the import duties from 7 to 6 cents Argentine gold per kilogram ($2\frac{1}{2}$ pounds), which appears to have relieved the situation somewhat. A rebate of $3\frac{3}{4}$ cents per kilogram is allowed on sugar exported from the country, which consequently can not be landed in the United Kingdom.

Cotton growing shows as yet a very small development, as only about 10,000 acres are under cultivation, chiefly in the Provinces of Corrientes, Santa Fe, La Rioja, and Tucuman. The crop for the year is given as 7,000 metric tons, and the latest information on the subject indicates that the climate and soil of the Republic are well adapted to this culture, while the scarcity of labor might, in the opinion of experts, be met by the employment of Indian service. Cotton imports for the year are placed at about 116,143 pounds. Only two spinning mills are operated in the country, while weaving establishments number 62, using in the greater part imported yarns. The Chaco district contains a large number of gins, which during the year treated about 800 metric tons of cotton, half being used in Buenos Aires and the remainder dispatched to the Liverpool market. The cotton seed are sold to the Colonelli factory, which is the only one equipped for the manufacture of oil. The three small cotton manufacturing companies originally established have combined as the "*Sociedad Hilanderías Argentinas de Algodón*," capitalized at about \$875,000. This company uses the native product, without having recourse to importations of raw material, to the extent of 400 tons, and its contracts for the year called for an increase over the preceding one.

The Province of Tucuman presents the most promising features for future development of silk culture, and Salta follows. For the

whole Republic a total of 11,550,000 mulberry trees is reported, of which Santa Fe has 5,200,000; Cordoba, 4,500,000; Entre Rios, 1,500,000, and the Provinces of Tucuman, Salta, Jujuy, and Santiago del Estero, 250,000 trees taken together.

The year was exceedingly favorable for the wine industry. The crop reached the maximum of production obtained up to this date, while the market generally was favorable and rendered possible the sale of the output. There were 26,116 hectares of cultivated vineyards in the Province of Mendoza, and the crop amounted to 6,334,937 tons of grapes, valued at \$18,000,000.

At the beginning of the year there were in the Republic 271 creameries, 18 butter factories, 68 cheese-making establishments, and 37 "mixed" factories. The Province of Buenos Aires is the center of the dairy industry and maintains 236 creameries, 12 butter factories (of which 5 are located in the capital), 59 cheese factories, and 25 "mixed" establishments. Santa Fe Province has 17 creameries, 5 butter factories, 4 cheese factories, and 6 mixed factories, while Entre Rios and Cordoba divide the remainder. The capital invested in this industry is \$4,543,420 national currency.

Of the 303 flour mills located in the Republic at the beginning of the year, 51 were not in operation, the production for 1906 having been 699,000 tons of flour, representing 986,069 tons of wheat. The percentage of flour and by-products were 67.67 and 28.74, respectively. Flour shipments were mainly to Brazil, that country taking 127,499 tons, or 92.81 per cent, of the total exports of that commodity, as against 88.98 per cent in the preceding year. The location of the mills is as follows: City of Buenos Aires, 19; Province of Buenos Aires, 68; Santa Fe, 39; Entre Rios, 28; Cordoba, 22; San Luis, 3; Santiago del Estero, 20; Mendoza, 18; San Juan, 19; La Rioja, 6; Catamarca, 14; Salta, 20; Jujuy, 8; Pampa, 1; Nenquen, 12; Rio Negro, 2; Chubut, 4.

The development of the mineral possibilities of the Republic is demonstrated by the fact that in the export returns for the year the only classification other than agricultural products showing an increased valuation was under the head of minerals. The total shipments aggregated \$565,039, representing a gain of \$291,223 over those of the preceding year. The specific item accounting largely for this increase is copper, bar copper figuring for \$292,495 and ore for \$170,207, the gain over 1903 being \$212,367 and \$86,484, respectively.

Tin was exported valued at \$6,670, against none in 1906, and iron ore shipments showed an increased valuation of \$8,927, the total value being \$29,669.

Silver exports worth \$1,722 are also reported, against none in the preceding year; and another item of shipment, borate of lime, figures for \$49,500, a gain over 1906 of \$2,956.

The actual production of minerals throughout the Republic is still small, though concessions have been granted and surveys made which indicate the beginning of a thorough exploitation of the resources. Among the mining enterprises under development on a sound economic basis are the Bora deposits and mines at Salta and Junjuy. The mineral is very pure and is shipped in a crude state without any treatment. Difficulty in transporting the product to the railroad hinders the exploitation under present conditions.

Among other noteworthy properties, the Concordia mine at Junjuy claims special attention, for it possesses very rich lodes and shows excellent results. This mine belongs to an Anglo-German syndicate, and the shares are quoted at 150 to 200 per cent. The syndicate has



THE GRAND STAND AND PART OF THE RACE TRACK OF THE JOCKEY CLUB OF BUENOS AIRES.

It is one of the richest clubs in the world. Racing is a favorite sport in the metropolis of South America.

recently made large purchases of mining machinery in Europe, from which it is evident that work on a large scale is to be started. The Fatatima mine, in the same district, is also being worked.

Gold is found in Tierra del Fuego, and gold washing has been carried on for some time in a primitive manner. Recently, however, an English company has been formed for the purpose of extracting gold in a more systematic and up-to-date manner, and a modern plant with dredging and washing machinery is to be installed. Regular work at Nenquen is in the hands of a Buenos Aires company.

In addition to the above-mentioned enterprises, copper, silver, and lead are exploited, and wolfram and tin have been discovered embedded in granite layers at Mazon and exploration work inaugurated.

Petroleum has been discovered in the northern part of the Republic, chiefly at the foot of the eastern slope of the Cordilleras toward Chaco, in the Provinces of Salta and Jujuy. The petroleum wells situated in the southern part of Mendoza and Neuquen are of considerable importance and the product has been extracted in appreciable quantities.

RAILWAYS.

The railway law as sanctioned in September by the National Congress, providing governmental legislation for the uniformity of privileges to be accorded the various railroads operating in the Republic, has given a decided impetus to the development of new enterprises. The total length of the lines in operation now aggregates nearly 14,000 miles, of which over 900 miles were constructed during the past year, and represent an invested capital of \$671,688,874. Most of this has been invested by English capitalists and some by French capitalists, but other nations are now also realizing the advantages to be obtained from investments in this country, and two valuable concessions for new railroads have been granted this year to some French-Belgian capitalists.

The Government has afforded private railway companies every possible facility, such as exemption from duties on all material required for the construction and maintenance of the roads, etc., and the new concessions recently granted include some of these privileges.

A consolidation of the interests of three important roads is under consideration, and the terms of the contract whereby this consolidation is to be effected provide for the expenditure of large sums for extensions and improvements.

There are at the present time 22 railroad companies established in the Republic, of which 18 are English, with head offices in London, 1 a French company, and 3 are owned and operated by the Government. Three different gauges are used on these lines, and the rolling stock consists of 53,328 wagons and 2,532 engines. Increased facilities have been provided for the transport of camp products, which, in view of the exceptional harvests, is a most auspicious condition. The transport of cereals and wool by the railways in 1907 totaled 3,476,165 tons of wheat, 1,478,421 tons of maize, 718,009 tons of linseed, and 159,058 tons of wool. With the exception of maize, all these products show an advance over the preceding year. The grain sheds, etc., at stations belonging to the railways and to individual owners have a total capacity of 795,455 square meters. This does not include sheds, warehouses, and elevators at terminal stations or ports which have, taken together, a capacity of 2,266,421 tons.

By the end of the year the railway lines of the Republic reached the border of Bolivia at La Quiaca. This result was secured by pro-

longing the Northern Central, which is a Government line, from Jujuy through the Humahuaca Canyon, a distance of 175 miles. The extension was begun in 1903. There were many engineering obstacles to be surmounted. One short section of the line where the topographic conditions presented peculiar difficulties has been constructed provisionally, and it is subject to such improvement as experience may demonstrate to be necessary. But the striking fact is that it is now possible to go by train or to ship freight from Buenos Aires to the border of Bolivia, a distance of 1,200 miles. The port of Rosario, on the Parana River, whose extensive harbor facilities make it an entry for ocean-going steamers, is nearer by more than 100 miles, and much of the traffic will therefore follow that route.

On July 6 the Government entered into a contract for the construction and exploration of a railroad from Lerma to Huaitiquina, the line to start from a convenient point on the Northern Central, in the valley of Lerma, and terminate at Huaitiquina, or another point near the Chilean frontier, whence it shall connect with the line that the concessionaire is to construct on Chilean territory from the port of Antofagasta or La Chimba to the frontier. The line must be completed within four years from the date of approval by Congress. The Government is to pay the concessionaire a subsidy of \$3,000,000 gold, to be paid in portions corresponding to sections of 12½ miles of rail, at the rate of \$6,214 per mile.

Two commissions have been appointed for the survey of railroad lines in Patagonia: one will connect San Antonio with Nahuelhuapi Lake, passing by the Valcheta colony, and the other, starting from Rivadavia and passing by the Sarmiento and San Martin colonies, will terminate at the "16 de Octubre" colony. The great importance of this work is evident, especially if the immense wealth of Patagonia is taken into consideration, covering mines, valuable woods, pasture grounds, and powerful streams for the generation of motive power.

A bill has been submitted to the Minister of Public Works providing for the investment of \$1,200,000, national currency, in the construction of bridges and roads throughout the Republic during 1908. Besides this amount, there have been appropriated already, in several items of the budget law of 1908, \$1,558,000, national currency, for the same purpose.

POSTS AND TELEGRAPHS.

The postal and telegraphic services, so closely allied with railway affairs, also show a healthy progress during 1907, when the revenues received therefrom increased to the extent of \$746,961 over the preceding year, the revenues from each being: Posts, \$7,578,180.27; telegraphs, \$2,255,374.90; total, \$9,833,555.17.

Up to December 31, 1907, the total number of offices established throughout the Republic was 2,138, distributed as follows: Federal



THE STATUE OF GENERAL SAN MARTIN IN BUENOS AIRES.

San Martín was the foremost leader in the independence of Argentina, Chile, and Peru. His remains rest in the Cathedral of the Argentine capital.

capital, 52; Provinces—Buenos Aires, 581; Santa Fe, 297; Cordoba, 309; Entre Rios, 132; San Luis, 76; Mendoza, 71; San Juan, 36; Santiago del Estero, 81; Corrientes, 66; Tucuman, 81; Salta, 66; Catamarca, 54; Jujuy, 33; La Rioja, 47; Northern Territories, 32; Southern Territories, 124.

The postal movement amounted to 625,330,960 pieces of mail matter, showing an increase of 73,316,063 pieces over the previous year.

The number of registered letters and parcels, the value of which was declared in the central post-office, amounted to 73,263 pieces, valued at \$5,260,068.29. The movement of postal money orders was: Internal, issued, \$8,491,507.37; international, issued, \$254,219.68; paid, \$209,213.50.

The number of telegraphic dispatches transmitted through the national lines during the year was 10,420,012.

IMMIGRATION.

During the year the total number of arrivals, including passengers and immigrants from foreign countries and Montevideo, was 329,122, the nationality of the immigrants being: Italians, 90,282; Spaniards, 82,606; Russians, 9,530; Turks, 7,436; French, 4,125; Austrians, 3,439; Germans, 2,322; English, 1,659; Hungarians, 1,220; Portuguese, 1,118; Argentinians, 1,016; Greeks, 500; Swiss, 486; Brazilians, 482; Montenegrins, 450; Bulgarians, 442; Danish, 378; North Americans, 393; Roumanians, 223; Belgians, 209; Moroccans, 180; Dutch, 178, and other nationalities in lesser numbers.

PUBLIC WORKS.

Municipal improvements at the capital are progressing, the city being authorized to contract a loan of \$15,000,000 gold at a rate of interest not greater than 5 per cent, the proceeds of which will be devoted to the reconstruction of markets, the opening of new avenues and plazas, the building of crematories for the destruction of refuse, the reform of slaughterhouses, the completion of the magnificent Colon Theater, and other improvements.

The United States Consul-General emphasizes the need of an American bank in the Argentine Republic, and says that its importance is second only to the need of a steamship line between the United States and Buenos Aires in the matter of developing North American trade.

Bids have been requested for the construction of a system of metropolitan subway electric railways, and provision has also been made for the paving of streets of Buenos Aires, construction of the road from Buenos Aires to Tigre and Campo de Mayo, and of the road from Cruz del Eje to Candelaria.

The tax collected on real estate in the Argentine capital during the year amounted to \$10,334,746.98, national currency, or an increase of

\$3,774,322.84 over the amount collected in 1906, and in the national territories the collections amounted to \$1,121,816.94, in comparison with \$472,723.75 collected in 1906.

Seventy-one new companies were floated during the year 1907 in the city of Buenos Aires, with an authorized capital of \$4,550,000 gold and \$47,770,000 paper. The subscribed capital at the time of registration of statutes was \$2,445,050 gold and \$13,575,245 paper.

The tramway companies of the city report receipts for the year of over \$22,500,000, national currency. Of the electric system, there are 526 kilometers in operation, and of animal traction 18, making a total of over 338 miles.

Building operations show remarkable progress in late years. The advance commenced in 1904 with an increase of 30 per cent over 1903. In 1905 an increase of 40 per cent over 1904 is shown. The increase in 1906 over 1905 is 48 per cent, and that of 1907 over 1906 41 per cent. From 1901 to 1907 the advance has exceeded 250 per cent.

For the development of commercial relations between Germany and the Republic a company has recently been formed in Berlin to devote itself to a consideration of Argentine-Germanic industries, immigration, and, in general, everything contributing to the development of the exchange of products between these countries. The Government is so convinced that this enterprise will be of great advantage to the Republic that it has decided to subsidize it, and will besides grant every necessary facility to assure its success. With this object in view, the Ministry of Finance will assume all expenses for the establishment of the permanent exposition of Argentine products in Germany.

In addition to projected tariff legislation the Government is carefully considering modifications of trade-mark and patent laws, which have long needed attention.



BOLIVIA

Under President MOXTES, whose term of office expires during the year 1908, Bolivia's advance in commerce and foreign relations has been noteworthy. Señor FERNANDO E. GUACHALLA, President-elect, was formerly Minister from Bolivia to the United States and has served his country in various diplomatic and official capacities, being well equipped for his high office. The great resources of the Re-

public are being appreciated not only by the people of the country, but by foreign countries. There is hardly a Republic in all Latin America showing more activity in railroad, mining, and general development.

FOREIGN AFFAIRS.

The international relations during 1907 were most satisfactory. Special conventions were signed with Brazil and Chile for the settlement of the boundary questions. The friendly suggestion made by the Argentine Government for the agreement with Paraguay of the basis of an arbitration treaty has been accepted. An agreement has been made with Chile for the designation of the Permanent Arbitration Tribunal at The Hague to settle all differences that may arise from the interpretation and enforcement of the Treaty of Peace and Friendship of October, 1904, and it has been resolved by common consent, after taking into consideration the interests of both parties, to rectify in the points of Chajmco and Collahuasi the boundary line fixed in said treaty; the settlement regarding the payment of the guaranty of railroads has been satisfactorily carried through. On the Arica-La Paz Railroad, which is one of the important points of the treaty of October, 1904, the work of construction is being executed with the necessary impulse.

For the furtherance of the conditions of the Petropolis Treaty a protocol has been signed with the Republic of Brazil for the verification of the River Verde, and another for the demarcation of the boundary line; it has also been agreed to extend for the period of one year the functions of the arbitration tribunal created by the treaty of Petropolis, the stipulations of which will be fulfilled as soon as the special treaty of commerce and navigation is signed.

An important customs convention with Peru, signed on January 31, 1908, at La Paz, regulates, in accordance with the treaty of commerce and customs of November 27, 1905, the free transit of merchandise imported or exported through Mollendo or any other port that the Peruvian Government may designate for the commerce of Bolivia. This convention will be operative until July 1, 1911, but at the expiration of this period it may be continued indefinitely unless one of the contracting parties shall have denounced it after one year's notice.

The boundary question with Peru, submitted to the decision of the Argentine Government, is nearing its settlement, which, it is hoped, will be satisfactory to both parties. In all other respects the relations between the two nations are most cordial, and the Peruvian Government has ordered the opening of the port of Ilo, after having been fitted adequately for the necessities of commerce, and the construction of a railroad to Moquegua with a branch on the Arequipa-Mollendo line for Bolivian traffic.



GOVERNMENT PALACE, SANTA CRUZ, BOLIVIA.

This city, founded in 1575, is a commercial and distributing center for cacao, coffee, tobacco, quinine, vanilla, and other tropical products. It is 694 miles from La Paz.

With the other nations of the world the most perfect and friendly relations are maintained, which tend to increase the commercial movement of the Republic.

FINANCE.

The financial situation of the Republic is satisfactory. The conversion of Government bonds was effected during 1907, new certificates bearing 8 per cent interest, instead of the old ones at 10 per cent, having been issued and sold at par. Up to June 30, 1907, the internal debt amounted to a total of \$2,000,000.

The general budget of revenues and expenditures of the Government for the year 1908 provides for revenues, \$8,000,000; expenditures, \$9,000,000; a deficit of \$1,000,000.

The status of the five banks of issue operating under the laws of the Republic, on June 30, 1907, showed a capital of \$6,000,000 and cash on hand \$4,800,000. The cash balance covers gold, silver, and nickel deposits, also revenue stamps and bonds.

The operations of the national mint during the first half of the year were as follows: Redemption of coins valued at \$7,848.76; expenditures on materials, \$1,021.57; coinage, \$24,471.54.

The customs agency of the Republic at Arica, Chile, collected during the year a total revenue of \$77,285.07, which, compared with that of 1906, shows an increase of \$47,255.83 for 1907.

COMMERCE.

The foreign trade of the Republic is advancing with most encouraging figures, the total for 1907 being estimated at \$55,000,000, compared with \$45,347,420 in 1906. The United States figured on the import list for \$2,852,460. Of the imports in 1906, valued at \$17,543,662, the United States furnished \$1,136,604, or 6.4 per cent, against 5.6 per cent in the preceding year, and received \$91,359, or 0.32 per cent, out of a total export value of \$27,827,258, as compared with 0.13 per cent in 1905.

The imports consist of all kinds of European and American merchandise, such as tools and machinery, clothing, furniture, groceries, beverages, fabrics, chemical products, drugs, and everything necessary for the use of a civilized nation. Much of the merchandise destined ultimately for Bolivia is shipped via Chilean, Peruvian, and Brazilian ports.

The principal articles exported and their average valuations are: Tin, \$18,000,000; rubber, \$5,300,000; silver bullion and ore, \$2,375,000; copper, \$1,650,000; bismuth, \$575,000; gold, \$18,000; sundries, \$250,000.

The depression in the financial world in the latter part of the year had its effect upon the price of Bolivian tin in the foreign markets.



INDIAN COCA GATHERERS, BOLIVIA.

The principal coca plantations of Bolivia are in the Yungas Valley. Cocaine is extracted from the leaves, the Indians masticating them to relieve fatigue, hunger, and difficulty experienced in mountain climbing. The shrub is also found in Peru and other parts of South America.

with a consequent limiting of its production. In accordance with the sliding scale adopted with reference to the value of Straits tin, which is taken as a standard, the output for the year had a total valuation of \$15,000,000, or \$3,000,000 less than in the preceding year.

Statistics covering the movement of tin during the year in the markets of Europe and America place the Bolivian product second among the deliveries for consumption. Although far outranked by the Straits output, 15,300 tons are credited to Bolivia, as against 16,380 tons in 1906.

The Department of Potosi increased its production by 4.08 per cent, and that of La Paz by $3\frac{1}{2}$ per cent, while Cochabamba more than doubled its output. On the other hand, the Department of Oruro diminished its production by 20.44 per cent as an economic measure induced by the decline in the price of tin in the world's markets in the latter half of the year.

The principal custom-houses of the Republic at the present time are Huaqui, Oruro, Uyuni, Tupiza, Tarija, Puerto Suarez, Villa Bella, Abuna, Madre de Dios, and Bahia. The following are second and third-class custom-houses: Corocoro, Sotalaya, Pelechnco, Itenes, San Matias, Yacuiba, Salitre, Rio Grande, Salinas de Garciludoza, Huaycho, San Ignacio, and La Gaiba.

All merchandise, in order to be lawfully imported into the Republic, must pass through one of the established custom-houses. Steel arms and firearms, as well as powder, except such as is imported for use in mines, and, in general, all kinds of war supplies, can only be imported with the express consent of the Government.

Foreign merchandise imported for consumption within the Republic pays, in the proper custom-house, the duties specified in the customs tariff; merchandise free of duty is such as is so mentioned in the customs tariff, or that which is declared free of duty by the legislative power. After merchandise passes through the custom-house of the Republic it is exempt from all further taxation, unless State laws and municipal rules and regulations otherwise direct.

All the products of the country, whether in a natural or manufactured state, with the exception of live vicuñas, chinchillas, and alpacas, and Bolivian antiquities, may be exported. Natural and manufactured products, with the exception of the following, are free from export duties: Bismuth in ingots, bismuth in bars, copper in bars, gold in ingots or powder, silver ores, sealed gold coin, and rubber.

INDUSTRIES.

It is rather difficult to estimate the agricultural production of the Republic. Everything of this kind produced is used for home consumption, except india rubber, which is exported to Europe, and

small quantities of cacao, coffee, Peruvian bark, etc., sent to Chile and the Argentine Republic.

India rubber, the exploitation of which at present constitutes one of the most important and sure sources of national wealth, is regarded as the most valuable vegetable product of the country, both in Bolivia and abroad. In the luxuriant forests that cover the valleys and ravines of the large Conzata, Camata, Mapiiri, Tipuani, Mariapu, Challana, and other less important rivers of Bolivia are found a number of trees, shrubs, and several species of brambles that produce different kinds of rubber.

The greatest rubber-producing regions are located in the national territory of Colonias, the departments of Beni and Santa Cruz, and portions of La Paz and Cochabamba. Both cacao and coffee are grown in the districts of La Paz and Cochabamba. Beni and Santa Cruz also cultivate coffee and other valuable vegetable products.

The problem which at present is regarded as most important by agriculturists is the irrigation of the fields and the best manner of utilizing the waters from the lakes, rivers, and reservoirs.

There are many rich mines in the Republic in which are found almost all the minerals known in the world. The mountains of the country contain great veins of precious metals, constituting the most varied combinations, and these metals are exploited on a large scale. Owing, however, to the great scarcity of labor, as well as of capital and railroads, a complete exploitation can not be made. Notwithstanding these difficulties it may be said that the mining industry in the Republic is carried on in accordance with the latest improvements, and that the best miners in South America are to be found in Bolivia. The copper deposits of Corocoro and the tin and bismuth mines are considered among the richest in the world. The wealth of the country's tin mines is wonderful, though development is handicapped by the lack of capital, railroads, and public roads which would facilitate the transportation of the product to the seaboard.

The mining law of the country protects foreign capitalists, who enjoy all kinds of privileges in the exploitation of mines. All foreigners may acquire mining claims on the same conditions as Bolivian citizens, and machinery imported for use in the mining and agricultural industries is free of duty.

Gold, silver, tin, bismuth, and copper constitute the chief mineral wealth of the Republic, though other mineral substances, such as wolfram, antimony, lead, borate of lime, etc., abound.

The annual production of gold may be estimated at approximately 550 kilograms of gold, the official value of which is \$137,500. Silver abounds in nearly all the territory of the Republic, and there are more than 10,000 abandoned silver mines, not including a great many which are at present being exploited. The exploitation of the aban-

done mines has not been carried on not because of the exhaustion of the metal or any deficiency therein, but owing to the lack of capital or suitable means for the extraction of the water, and other difficulties.

COMMUNICATION.

In August, 1907, the extent of railways in exploitation was 418 miles, and the wagon roads of the Republic had a length of 2,304 miles. Navigable rivers within the territory of the country have a length of 18,820 kilometers, or 10,156 maritime miles.

Under various treaty agreements with the Government the Argentine Republic was authorized to construct railway lines to Tupiza, a distance of 52 miles, which is the natural railway center of southern Bolivia. After the line reached the Bolivian frontier the Argentine Executive gave orders for the engineering studies preliminary to the construction of the Tupiza extension, and these studies are now being made and the active construction will not be long delayed. With the railway from the Atlantic to the southern part of Bolivia completed, on a long link of the main trunk of the intercontinental system trains are running. The next step is its prolongation northward. This is now assured under the policy of the Bolivian Government and the agreement made with the Speyer-City Bank syndicate of New York. The first stage was the contract under which the Government set aside \$12,000,000, which included the \$10,000,000 indemnity received from Brazil in settlement of the Acre rubber territory controversy, and the American capitalists furnished \$15,000,000.

The earliest work was in filling the gaps in the Pan-American links. The first section to be undertaken was that between Viacha, on the short railway line between Lake Titicaca and La Paz, and the city of Oruro. The distance is 128 miles. It is anticipated that the line will be completed to Oruro in July, 1908. There it will join the Antofagasta and Bolivia Railway. Under a provisional agreement recently made with the Antofagasta company, which is an English corporation, the tracks will be used by the two companies in common between Oruro and the town of Uyuni. The distance from Uyuni to Oruro is 195 miles; Oruro to Viacha, 128; Viacha to Guaqui, on Lake Titicaca, 40; so that within a short time it is probable that 363 miles of the main trunk of the Pan-American system will be in operation in the Republic.

The Speyer-City Bank syndicate will be able to undertake the construction of the line from Uyuni to Tupiza much earlier than had been anticipated. The project of making the connection by the longer route from Tupiza to the mining city of Potosi will not have to be carried out, since under the arrangement the latter city will be joined

with the main trunk by a spur. The distance from Uyuni to Tupiza is 125 miles, and since from Tupiza to the frontier is 52 miles, as regards the Pan-American line in Bolivia, it may be said that only 177 miles remain to be completed.

A kindred project has for its object the uniting of water and rail transportation, thus affording the means of utilizing the extensive river systems and opening up the vast interior regions of the southern continent to commerce. After the principal Bolivian lines are completed the Government will undertake the construction of a line from La Paz through what is known as the "Yungas district" to the navigable waters of the River Beni, which is an affluent of the Madre de Dios, whose waters reach the Amazon through the Mamore and the Madeira. The rapids of the Madeira, interfering as they do with navigation, have proved a most serious obstacle to a commercial outlet for this rubber-producing region. The building of a railway around the rapids has been attempted at various times and abandoned. By the treaty with Brazil, the latter agreed to provide for the construction of this railway, which will be some 300 miles in length. The contract has been made with an American company, and the preliminary work has been entered upon. The work is now on a permanent basis. Brazilian credit and the Brazilian Government are back of the project, which will be one of the advance steps in civilization in opening up the river basins of South America.

The amount of money invested and to be invested immediately in the several enterprises, including the Bolivian development, will probably exceed \$150,000,000. The movement of American railway and other material in this direction for such works represents the most active and the most considerable element in the export trade of the United States to Brazil and Bolivia.

POSTS AND TELEGRAPHS.

There has been a remarkable increase in the movement of the postal and telegraph services, making necessary the introduction of several improvements. In the postal service, several new offices have been established, and various subpost-offices have also been created in different parts of the Republic. In the telegraph service various lines have been repaired and reconstructed, and several new ones are under process of construction. Five wireless-telegraph stations will be opened during 1908. The adherence of the Republic to the International Telegraphic Convention, signed at St. Petersburg in 1875, is being negotiated in London.

The total length of telegraph lines in the country is 2,704 miles. About two-thirds, 1,817 miles, is owned by the Government, and one-third, 887 miles, by private companies.

There are in the Republic 111 miles of telephone lines owned by private companies.

PUBLIC INSTRUCTION.

Public instruction received the special attention of the Government and improved considerably during the year. Government students were sent abroad to study in the United States and in Europe and ambulant schools were established for the education of Indians. These schools comprise at present a territorial extension of 30 leagues, and are attended to by eight teachers.

The building for the Practical School of Agriculture in Tarija was completed, and in Cinti a school of viticulture organized. A normal



THE MUNICIPAL AND GOVERNMENT PALACES, POTOSI, BOLIVIA.

This city is the capital of the Department of Potosi, one of the richest mineral regions of the world. It is situated at an altitude of 13,817 feet.

station for agricultural experiments and for the reproduction of several races and species of useful animals is to be established in Cochabamba, and in La Paz a meteorological observatory and a garden of acclimatization and experimental grounds will be opened, in connection with which there will be a veterinary school.

IMMIGRATION AND PUBLIC WORKS.

That the Bolivian Government is taking proper measures for the protection of settlers and immigrants is evidenced by the land law of June 20, and a bill submitted to Congress authorizing the Executive to negotiate a loan of \$2,500,000, to be applied to sanitary measures in the various departmental capitals.

The contracts entered into for work in the construction of railroads, the organization of mining companies, the establishment of banks and industrial enterprises, as well as the energetic propaganda initiated by diplomatic and consular representatives abroad, have resulted in a current of immigration to the Republic which is worthy of serious consideration.

The mining law, promulgated on June 12, revises in many particulars previously existing legislation on the subject, providing for the opening up of new regions and guaranteeing adequate protection for intending prospectors from abroad.

Early in 1908, the Stock Exchange, a company with a subscribed capital of \$35,000, was inaugurated in La Paz. This institution is the first one of its character to be established in the Republic, and will engage not only in the usual stock transactions, but will also promote the formation of industrial companies.



Among other important measures marking Brazil's international intercourse during 1907, under the administration of Dr. AFFONSO PENNA, the solution of several boundary questions with neighboring States is paramount.

FOREIGN RELATIONS.

On April 20 the ratification of the boundary treaty between Brazil and Colombia was signed. This treaty traces the frontier from Cucuhy on the Rio Negro to the confluence of the Apaporis and Yapura. From this point southward to the Amazon, Ecuador and Peru acknowledge the boundary accepted by Brazil, but Colombia contests the claim of these countries in the Iça (Putumayo) region, and the settlement of the Brazilian boundary is postponed till Colombia, Ecuador, and Peru have come to an agreement.

The matter of the delimitation of the frontier between the Argentine Republic and Brazil will shortly be arranged in conformity with the arbitral decision rendered at Washington in February, 1895. The protocol signed regarding this question comprises the plans of the works executed by the Mixed Commission, and gives to both countries the right to administrative occupation of the islands belonging to certain rivers of Upper Parana. The Brazilian frontier with Dutch Guiana, which has been the subject of treaty with Holland, is to be

settled during the present year, the States-General of the latter country having already signified its adhesion thereto. A discussion between Brazil and Peru concerning the delimitation of the frontier from the sources of the Javary to parallel 11 south will, it is believed, shortly lead to an adjustment of the matter.

The Brazilian Government approved on November 6, 1907, the two protocols signed at Caracas on December 9, 1905, providing for the demarcation of the boundary between Brazil and Venezuela as determined by the treaty of May 5, 1859, and a decree dated November 6, 1907, approves the protocol signed on December 12, 1906, between Brazil and the Republic of Uruguay.

Government sanction was given to the international wireless convention, also to the conventions of the Hague Conference, where Brazil was brilliantly represented, and on January 9, 1908, the ratification by Brazil of the International Sanitary Convention of Washington was officially promulgated.

At the third Latin-American Medical Congress, held in Montevideo in March, 1907, the city of Rio de Janeiro was selected as the seat for the Fourth Congress, to be held in the year 1909.

The national exhibition to be held by the Brazilian Government from June to December of 1908 at Rio de Janeiro will furnish an opportunity for foreigners to judge adequately concerning the salubrity of the climate and the natural wealth of the country, as well as the progressive character of its industries.

All over Brazil there is evidence of the new era of material progress. Railroads are being built into the interior, rivers and harbors are being improved, the cities are being modernized, the school systems are being elaborated, and the native wealth of the soil and forests is being exploited, with the result that a large amount of European and American capital is being invested there, with absolute surety of good returns.

FINANCE.

The Budget Law for the fiscal year 1908 fixes the expenditures at \$144,163,208.70, the revenue being estimated at \$138,908,346.82.

Governmental receipts for the fiscal period of 1907 exceeded the budget estimates by \$26,900,000, and, comparing revenues and expenditures, shows a balance of \$3,200,000.

The revenue collected by the various custom-houses in 1907 aggregated \$95,044,387, compared with \$81,646,417 in the preceding year. Tariff reform is occupying the National Congress, and a new schedule of rates is being considered in accordance with an advanced protection system. It is especially designed to guard the interests of native industries, to raise the rate of exchange from 12 to 15, and to

maintain a sliding scale of duties subject to fluctuation of prices in foreign markets.

The foreign debt is stated to be \$360,000,000, while the gold deposits existing in the *Caixa de Conversão* amount to \$50,600,000, as against \$26,200,000 in 1906. The treasury balance is \$154,080,000 in gold and \$25,600,000 represented by silver, copper, and paper. To meet the expenses of coining new silver money, the Minister of Finance was authorized to open a credit of \$1,660,000.

The President of the Republic having by a decree of September 28, 1907, and in conformity with the law of August 12 of the same year, authorized the issue of a loan of \$15,000,000, nominal capital, bear-



THE MUSEUM OF IPYRANGA, SÃO PAULO, BRAZIL.

It marks the site of the declaration of freedom from Portuguese rule, which was followed by the establishment of the Empire. The building is remarkable for its size and imposing architecture.

ing interest at 5 per cent annually, the house of Messrs. N. M. Rothschild & Sons received subscriptions for the same on October 3 and 4, 1907.

COMMERCE.

The total foreign trade of Brazil in 1907 amounted to \$494,000,000, as compared with \$440,000,000 in 1906, imports being valued at \$202,000,000, against \$165,000,000 in 1906, while exports reached a valuation of \$270,000,000, as compared with \$265,000,000 in the preceding year. The imports of specie in 1907 amounted to \$22,000,000, compared with \$14,000,000 in 1906.

The indicated gain of Brazil's foreign trade in 1907 over 1906 was \$54,000,000. Both imports and exports figure in this increase, though

by far the greater proportion is credited to the former. Noteworthy gains are cited for shipments of coffee and cacao, but the other great staple on the export list, rubber, showed a decline.

From all countries an import increase is recorded, with the exception of India and Sweden, the cause in the first instance being due to increased rice production, which formerly formed the bulk of imports from that country. Imports from the United States, the chief market for Brazilian products, increased by 35.9 per cent and from Great Britain by 30.8 per cent. The Argentine Republic increased its shipments by only 3.5 per cent, while from Uruguay imports advanced by 11.3 per cent.

The six leading countries for the supply of merchandise were: Great Britain, \$60,500,000; Germany, \$31,000,000; the United States, \$25,000,000; the Argentine Republic, \$18,000,000; France, \$17,000,000, and Portugal, \$11,000,000.

In imports every class records increases, the largest being 30.2 per cent in manufactures, followed by 26.7 per cent for raw and prepared materials for manufactures, live animals, 19.1 per cent, and food products, 6.1 per cent. Cotton textiles show an increase of 17 per cent; iron and steel, manufactured, 11 per cent; rails, 16.8 per cent, and copper and alloys, 34.4 per cent.

The United States far outranks all other countries as a receiver of Brazil's products, the total receipts in 1907 being \$85,000,000, followed by Germany with \$47,000,000; Great Britain, \$43,000,000; France, \$36,000,000; Belgium, \$14,000,000, and Holland, \$10,500,000.

To England exports show an increase of 1.3 per cent and to Portugal 20 per cent, while to Italy they fell off 38.2 per cent, to Uruguay, 11 per cent, and to the Argentine Republic, 8.5 per cent. In spite of large shipments of coffee to Germany, a decline is noted in exports thither, and to Austria-Hungary a shrinkage of 6.1 per cent is recorded.

The leading articles of export were: Coffee, \$142,000,000; rubber, \$70,000,000; cacao, \$10,000,000; cotton, \$8,500,000; yerba maté, \$8,000,000; tobacco, \$6,000,000; sugar \$670,000; various, \$30,000.

As compared with 1906, coffee exports show a gain of \$7,000,000; rubber, a decrease of \$6,000,000; cacao, a gain of \$3,500,000; cotton remained stationary, and yerba maté declined by \$1,000,000.

Figures covering the exports of rubber from Brazil during 1907 give the total quantity as 40,000 tons, against 37,000 tons in 1906. The countries to which shipment was made and the values were: Germany, \$4,617,095; Argentine Republic, \$27,373; Belgium, \$30,883; United States, \$33,223,250; France, 5,544,099; Great Britain, \$27,401,262; Uruguay, \$871,359.

Of Brazil's total imports in 1907, \$25,000,000, or 12.3 per cent, were of United States origin, against 11.46 per cent in 1906, and of



THE "PRAÇA 15 DE NOVEMBRO," RIO DE JANEIRO, BRAZIL.

In the foreground is the statue of General Osorio, leader of the Brazilian Army in the Paraguayan war, and in the background are seen the quay and a section of the harbor, which is one of the largest and most magnificent in the world.

the total exports \$85,436,070, or 31.6 per cent, were sent to the United States, as compared with 36 per cent in the preceding year, the items and values being as follows:

The leading articles exported to the United States were: Coffee, \$49,998,615; india rubber, crude, \$27,898,929; cacao, \$2,898,275; goat-skins, \$1,659,115.

The leading articles imported from the United States were: Illuminating oils, \$2,678,957; wheat flour, \$1,620,149; telegraph and telephone instruments, \$1,237,691; lard, \$1,195,233; electrical machinery, \$979,730; lumber, \$822,739; rosin, tar, etc., \$759,470; steam engines, and parts of, \$745,766; builders' hardware, \$613,110; vegetable oils, \$599,168; sewing machines, and parts of, \$541,308.

The import of goods of United States origin under the preferential tariff increased materially, although as far as the actual volume of trade is concerned the only notable increase was for flour, which is, in fact, the only item covered by the preferential act that is of very material moment. According to the detailed figures of the imports of preferential favored goods for 1907, they aggregated \$12,010,221. Of this amount flour figured for \$9,508,861, of which the United States furnished \$1,937,806 worth, while the total imports from the United States of the articles favored by duties amounted to \$2,351,326 (including flour imports), against \$1,863,633 in 1906, an increase of \$487,693, or 26.1 per cent.

The tariff concessions made to United States flour imports by the Brazilian Government add interest to the comparative data as to the status of foreign flour in that country. It is shown that the Argentine product is far in the lead, having grown from 37,235 tons in 1902 to 122,282 tons in 1906, whereas imports from the United States declined from 46,840 tons to 24,526 tons in the same period.

The greatest single item of interest to the United States is that of cotton manufactures. The imports from the United States have fallen off materially from those of last year, as those last year did from the year before. American cotton manufactures are disappearing from the Brazilian market very rapidly, while those of Great Britain and Germany, made from American raw material, are rapidly increasing. The notable increase in imports from Germany represents mostly cottons and industrial machinery and railway supplies, and from Great Britain cottons and machinery. Newfoundland is cutting out the American codfish trade, and Austria-Hungary has made a notable increase in its flour shipments.

While the general purchasing power of the people of Brazil has generally increased, the chief explanation for this great increase in imports is the great coffee crop of the season of 1906-7. A development of the coffee trade growing out of the operation of the "valorization" product is the issuance of warrants against the coffee stocks

to be held in storage at Santos. The Commercial Association of Rio de Janeiro and a highly capitalized company with headquarters at São Paulo are interested in the enterprise, which will, it is believed, be beneficial to the trade of those commercial centers.

The general movement of imports shows the increase to have been confined exclusively to prime materials for various industries and manufactured goods. The protection accorded to alimentary products by the customs was attended by satisfactory results.

Rio de Janeiro maintained its position as the leading port of entry, receiving 38.9 per cent of the total imports, followed by Santos with 20.9 per cent.

The State of São Paulo, the great coffee State, was the principal exporting center, followed by the Federal District, Amazonas, and Para.

PRODUCTION.

The satisfactory development of agricultural interests continued during 1907, notwithstanding the depreciation in value of both coffee and rubber, attributable in a large degree to the financial crisis. Sugar conditions improved, and the market for the present year presents very satisfactory indications. The possible protection of this industry by the elevation of import duties is forecast, and the Government, owing to the denouement of the Brussels convention, will be enabled to place Brazilian sugar on a footing with that of other countries. A notable feature of agricultural development is the increased growing of rice and the consequent decreased importation of that article. According to a decree of November 28, 1907, the President of Brazil is authorized to promote the formation of a Central Agricultural Bank to provide capital and credit for agriculture, capitalized at \$10,000,000.

Coffee growing and exports under the new system of valorization show advancing trade values. The final official figures for the coffee crop of Brazil for the year ending June 30, 1907, show that the total entries in all Brazil reached 20,409,180 bags, representing an increase over the previous year of 9,353,802 bags, or 84.6 per cent. The greater part of the increase came in the State of São Paulo, where the bulk of the crop generally is produced. All the States producing coffee, however, showed increases, except Bahia and Santa Catharina, where there was an average decrease of over 45 per cent. The increase in Rio de Janeiro amounted to 30.4 per cent, in São Paulo to 120.3 per cent, and in Espirito Santo to 3 per cent, as compared with the year before. As compared with the previous banner crop year of 1901-2, there was a decrease in all the States except São Paulo of about 27.5 per cent. Brazilian coffee is represented in United States consumption for the year by 77.34 per cent, or 727,187,465 pounds, out of a total of 940,247,312 pounds consumed.

The law of the Brazilian Government authorizing the coffee loan of \$15,000,000 was promulgated by the Executive on August 12, 1907.

Brazil does not show any signs of reducing her rubber production, although it is likely that the next crop may suffer a decrease. The amount of rubber exported from Brazil, which includes that of Bolivia and Peru, shipped through the Amazon, was 41,500 tons in 1907, against 38,000 tons in 1906. The world's supply in 1907 amounted to nearly 69,000 tons, against 65,000 in the previous year; on the other hand, consumption was almost the same in both years—that is to say, 66,000 tons.



LOADING COFFEE AT SANTOS, BRAZIL, THE CHIEF COFFEE EXPORTING PORT OF THE REPUBLIC.

Brazil's exports of coffee in 1907 amounted to \$142,000,000, of which over \$100,000,000 were shipped from Santos.

With a crop of over 60,000,000 pounds of cacao last year, Brazil at present leads in the world's production and the United States in the world's consumption. In Para and Bahia the cultivation of the crop is being placed upon a scientific basis, and it is probable that the next few seasons will show an immense increase in Brazil's output, the increasing exports of the product forming one of the promising features of the Brazilian agricultural and trade situation. The Governor of the State of Para, in his last message, speaks of the industry as

being in the most flourishing condition, and the immense increase in the world's demand seems to have more than made up for the increase in the world's production, notably that of Brazil. The cacao output of the State of Bahia is reported to have nearly doubled within the last six years, the exports in 1900 being given as 13,000 tons, as against 23,500 tons in 1906. The planters have found that more certain and larger profits are obtained through this culture than from either tobacco or coffee.

The production of sugar in the State of Pernambuco for the crop year, which extends from September 1, 1906, to August 31, 1907, was 1,478,462 bags, compared with 2,047,038 bags in 1905-6. The cotton crop of this State for 1906-7 amounted to 274,524 bales, compared with 246,217 bales in 1905-6.

INDUSTRIES.

There are 2,400 industrial establishments in Brazil, with a total capital of approximately \$189,750,000.

Textile production is increasing at a rapid rate, which fact explains the decline noted in receipts from various exporting countries, and the commercial value of the new perini fiber is receiving governmental exploitation with the view of introducing a rival to cotton in Brazilian trade. Much is hoped in this connection. The Government has granted a concession to a private company for the exploitation of the plant, and the Governor of the State of Rio de Janeiro has given an annual subsidy of 30 *contos* for four years for the establishment of a factory in that State for the manufacture of goods, paper, and cordage out of said fiber.

There are at the present time in Brazil 110 textile mills, employing 734,928 spindles and 29,420 looms, and having a total capital of about \$50,000,000. These mills give employment to 39,159 operatives, produce annually 242,087,181 meters of cloth, and consume annually 4,750 tons of cotton.

Practically all the wheat used in the Brazilian mills is imported, of which nearly 90 per cent is from the Argentine Republic. During the last five years Brazil imported from that republic the following quantities: 1902, 129,867 tons, or 87 per cent of the total imports; 1903, 155,730 tons, or 92 per cent; 1904, 168,747 tons, or 89 per cent; 1905, 181,647 tons, or 85 per cent; 1906, 209,927 tons, or 96 per cent.

A bill has been introduced in the Brazilian Congress whereby it is purposed to encourage iron and steel manufactures in the country by granting a 4 per cent guaranty up to \$900,000 to the first five factories employing national minerals. This bounty is to be increased to 6 per cent if Brazilian coal is used.

To encourage the establishment of rubber manufactories in Brazil, a bill recently introduced grants to the first five rubber factories

which within two years are established in the Aere Territory and in the States of Amazonas, Para, Bahia, São Paulo, and Rio de Janeiro exemption from the payment of import duties for a period of five years on all material and machinery imported for said mills. The Government is also authorized to grant a premium of 50 *contos* to any person who shall invent an economic process for the extraction of rubber without causing injury to the trees, and for its prompt coagulation.

While mining may not be regarded as a distinctively Brazilian industry, with the installation of dredging machinery at points along the Jequitinhonha River in the State of Minas Geraes a revolution in the industry of the diamond district of Brazil is effected which will



A DIAMOND MINE IN MINAS GERAES, BRAZIL.

Diamonds were first discovered in this State in 1727. Its output in 1905 amounted to \$150,000 and to \$310,000 in 1906. The famous diamond, "Star of the South," weighing before cutting 254 carats, was found in this State in 1854. Gold mining is also successfully carried on in the district.

greatly influence the diamond markets of the world. United States capital has obtained possession of practically all the diamond-bearing territory in the Diamantina country.

The existence of platinum in Brazil has been known for over one hundred years and was for a long time confounded with palladic gold, and the coal deposits have been found to give satisfactory results upon analysis.

RAILWAYS.

The total increase in railway construction throughout Brazil during 1907 amounted to 436½ miles. Added to the 10,891 miles reported in

operation in the Republic at the opening of 1906, during which year but 42 miles were added, the total length of railways in operation at the close of 1907 was 11,369 miles.

The survey of the line from São Luiz to Caxias has been approved and the work of construction begun. A contract has been made for the construction of the extension of the Sobral Railway, from Ipu to Crathens. The definite survey of the line connecting Crathens with Therezina has been concluded.

Proposals will shortly be called for for the construction of the Central Railway of Rio Grande do Norte and for the extension of



THE RAILROAD STATION AT SÃO PAULO, THE CHICAGO OF BRAZIL.

It was built by the English company operating the tidewater railroad over which is transported the larger part of the coffee exported through the port of Santos. It is one of the most beautiful buildings of its kind in South America and cost, approximately, \$1,500,000.

the Batnríte Railway, and work has been begun on the railway extending from Timo to Propria, while the line connecting this railway with the Central Railway of Alagoas is in course of survey.

The survey of the line connecting the railway system of the State of Bahia with the Victoria-Diamantina Railway is almost completed, the original route having been very much shortened. A contract has been entered into with the Leopoldina Railway Company for the construction of a line connecting the States of Espirito Santo, Minas Geraes, and Rio de Janeiro.

Work is progressing rapidly on the extension of the Central Railway. Another section of 28 miles has been opened to traffic, and the survey of the last section has been made as far as Pirapora, on the São Francisco River, a distance of 626 miles from Rio de Janeiro. The line extending from Sabara to Santa Anna dos Ferros, owned by the State of Minas Geraes, has been incorporated with the Brazilian Central.

Surveys have been made for a line to connect the west of Minas Railway with the Brazilian Central, via Carrancas, and a branch of the Bello Horizonte. A branch line has been built to Pitangny.

Construction work on the Goyaz Railway was begun in September, 1907, 25 miles of this line having been already completed, of which 19 miles are in operation.

The surveys for the two branch lines of the Sorocabana Railway, one extending to Itarare, the other to Ilha Grande on the Parapanema line, have been approved and construction work begun. A section of the Itarare branch is already in operation, while 45 miles of the Ilha Grande branch are already open to traffic.

On March 24, 1908, the Government of Brazil signed a contract with the Northwestern Railway Company of Brazil for the construction of a railway connecting Itapura and Corumba, in the State of Matto Grosso. The railway will be extended to the Bolivian frontier and will have a total length of 560 miles. By the terms of the contract, the line must be in operation as far as Porto Esperança, on the Paraguay River, by September 30, 1910, and be completed to the Bolivian frontier within fifteen months from this date.

According to the terms of the contract with the São-Paulo-Rio Grande Railway Company, the entire line from Itarare to the Uruguay River must be in operation by June 20, 1910. A section of this line, connecting Jaguarahyva with União da Victoria, is already open to traffic, and the opening of two other sections has been authorized. On April 20, 1907, the rails had been laid as far as Itarare, so that there remains to be built only the Sorocabana section from Aracassu to Itarare (which is expected to be finished by the end of the year) to connect Santa Catharina by rail with Rio de Janeiro.

Finally, the Government has entered into a contract with the *Compagnie Auxiliaire des Chemins de Fer* for the construction, within two and one-half years, of a line to extend from Passo Fundo to the Uruguay River, and connecting with the São Paulo-Rio Grande Railway after crossing this river. The section between Cacequy and Alegrete is already finished and open to traffic, and work has been begun on the branch line extending from Saycan to Santa Anna do Livramento. Work is progressing on the railway connecting Cruz Alta with the mouth of the Ijnhy.

A decree of January 20, 1908, authorizes the transfer to the Madeira-Mamore Railway Company of the contract for the construction of the Madeira-Mamore Railway.

The President of the Republic made a special visit to the city of São Paulo recently to be present at the inauguration of the final section of the broad-gauge railway between the Federal capital and the capital of the State of São Paulo. The work of substituting the broad gauge for the narrow gauge on this the main trunk of the Central Railway of Brazil has been going on for many years, and its completion provides for much faster and altogether better service between Brazil's two largest cities.

Inauguration ceremonies have also marked the opening of traffic on extensions of two branches of the Sorocabana Railway, both of whose terminals have been pushed nearer to the border of Parana. The southern branch is to connect at the Parana River with the Rio Grande do Sul and São Paulo Railway, which is being rapidly extended northward across the State of Parana.

A bill was recently introduced in the Brazilian Congress authorizing the Government to revise the contracts for the lease of the Federal railways. The changes proposed include the equipping of the lines with cold-storage, dining, and sleeping cars; the establishment of cold-storage warehouses at the terminals and other convenient points of the railways, and the adoption of measures to promote the settlement of lands through which the lines run.

Work is progressing rapidly on the highway connecting the seats of the three administrative divisions into which the Acre Territory has been divided—Alto Jurua, Alto Purus, and Alto Acre. The road should be completed by the end of the current year. It is being solidly built with the view of running a line of automobiles between the three points mentioned. It is calculated that the trip between Alto Jurua and Alto Purus can be made by automobile in fifteen days, and from Alto Purus to Alto Acre in two days. When completed, this road will undoubtedly give a great impulse to the development of this rich territory.

MARITIME MOVEMENT.

During the first half of 1907 there arrived from Europe 81 ships of 14 knots speed or over, with a net registered tonnage of 283,795, or about 430,000 tons gross, as against 46 ships in the corresponding period of 1906. Ninety-one ships of like speed departed from Rio de Janeiro for Europe during the first six months of the year, with a net registered tonnage of 338,692.

The increase in tonnage between Brazil and Europe reflects, in general, the increase in the country's trade as a result of the immense coffee crop. There was no similar increase in the number of vessels

toward American ports, the record for steamers being 64 for the half year. The arrivals were substantially the same as those for the preceding year.

During the six months of the year under review, 1 American ship, a sailing vessel, entered the port of Rio de Janeiro, and 2 American sailing ships cleared from the port.

The Lloyd Brasileiro Steamship Company brought to Rio de Janeiro 3 vessels from England for use on Brazilian routes. Two of them were for coastwise trade, the third to be used in the New York trade. There has been a large reduction in rates to New York since the Brazilian line started.

The purchase by the Hamburg South American Steamship Company of the New York Brazilian line of the Union Shipping Company



BAHIA, THE CRESCENT CITY OF BRAZIL.

This beautiful city, on the Bay of All Saints, is the principal port of the northern part of the Republic. It was founded in 1549 and has a population of 174,412 inhabitants.

started a rate war by the Lamport and Holt Line, which has brought about a reduction in rates from Brazil to Europe.

On the line of steamships running between New York and Brazilian and other ports of the east coast of South America a fortnightly service of large ships was established during 1907 and will be maintained so long as business justifies. The arrangement also includes one steamer a month, or rather about every three weeks, to the River Plate. The establishment of a new navigation service by the Lloyd Company between Brazil and Chile has been effected, and a navigation company for the purpose of establishing a steamship service between the ports of Paranagua, Cananea, Iguape, Santos, and Rio de Janeiro organized. The inauguration of this service will be of great benefit to the ports of Iguape and Cananea, as the steamers of other lines seldom touch at these ports.

POSTS AND TELEGRAPHS.

The postal service developed greatly during the year, the length of postal lines being 78,556 miles, the number of journeys made 332,856, and the number of agencies 3,033. The value of postal orders issued and paid amounts to \$14,683,680.

Telegraph lines aggregate a total length of 41,750 miles. Increased extent during the year is calculated at 788 miles, more than half of which is credited to the great line which is to link up the Acre Territory and Amazonas with Matto Grosso and other States. Telegrams for the interior numbered 1,782,902, as compared with 1,642,582 in the preceding year, and those sent abroad were also in excess of 1906. During the year 30 new stations were opened. The revenue from this source declined somewhat, owing to the reduction of rates to more distant States. The international service was opened to traffic in July.

IMMIGRATION.

The total population of Brazil in 1907 was 19,910,646, as against 19,523,222 in 1906. The number of voluntary immigrants arriving in Brazil in 1907 was 9,339 greater than the average of the last seventeen years. Bureaus of immigration and colonization have been established, giving every guaranty and facility to intending settlers.

According to figures furnished by the board of health of Rio de Janeiro, there was a marked decrease in the mortality of that city for 1907, notwithstanding a considerable growth in population, the mortality for 1906 and 1907 being 13,960 and 12,106, respectively.

The Government of the State of Rio de Janeiro has entered into a contract with the Japanese Emigration Company for the introduction of Japanese immigrants and the establishment of colonies at Imbe Macahe and Itaboraahy. By the terms of the contract the company will mark and divide the lots, build the houses, and furnish the colonists with agricultural machinery and implements, as well as food, until their first crops have been harvested. The State of São Paulo is also negotiating with the same company for the introduction into that State of 3,000 Japanese immigrants. In order to develop the import and export trade between Brazil and Japan, an association has been formed to send to each country of South America representatives for studying the conditions of the country.

During 1907 new companies and enterprises to the number of 23, and with a total capital of \$100,000,000, were authorized to operate in the Republic.

PUBLIC WORKS.

The port works of Santos, Rio de Janeiro, and Bahia are being vigorously prosecuted; those of Para are begun, and arrangements

have been made for inaugurating work at Rio Grande do Sul and Victoria. The Pernambuco port works have been submitted for bids, and other similar improvements are under survey.

When the final work on the port of Santos is completed, the new quays will have a length of nearly $2\frac{1}{2}$ miles of quay wall, served by railways and with warehouses at hand, with deep water alongside, suited to the merchant fleets of the world. A great improvement has been introduced into the Santos cotton market, consisting in the establishment of public stores and the issue of warrants.

The President of the State of São Paulo has supplemented the action of the Federal Government of Brazil by creating an administrative board attached to the department of agriculture, commerce, and public works of São Paulo, charged with a study of the coffee-consuming centers of the world and the consideration of such meas-



THE LUIZ DE QUEIROZ AGRICULTURAL COLLEGE, AT PIRACICABA, STATE OF SÃO PAULO, BRAZIL.

Founded in 1900. The school has five departments, and the course of study covers a term of three years.

ures as may tend to either develop new markets or conquer existing ones. Grants in aid of coffee propaganda will be made to private individuals or companies who will advertise and promote the use and sale of coffee from the State.

Various municipal improvements are being carried out in Rio de Janeiro, for which two loans of \$25,000,000 and \$15,000,000, respectively, were placed in London in 1903. These loans were secured by a special tax of 2 per cent ad valorem on all goods imported into Rio de Janeiro and paying other duties.

The new market building, situated on the wharf Del Vecchio, was formally opened on December 14, covering an area of 22,500 square meters.

Regulations issued by the Brazilian Government covering the importation of animals for breeding purposes were made public on

April 18, 1907, and provide for such Government aid in the matter as is rendered possible by the budget resources.

A recent supplement to the Brazilian tariff decrees that during the present financial year there shall be levied an additional duty of 2 per cent gold (upon official import valuations) on goods imported through the custom-houses of Para, Pernambuco, and Bahia, exception being made in the case of cereals, which are subject to the 2 per cent (gold) surtax.

In accordance with two recent decisions of the Rio de Janeiro Court of Appeals, it is held that the international registration of a trade-mark at Berne is of no effect in Brazil unless the provision of the Brazilian trade-mark law, which prescribes publication in the "*Jornal Official*," is complied with. These decisions are important, as they affect all international registrations that have not been published as indicated.

There exists the probability of a revision of the tariff of the country during the session of the National Congress in May, 1908, and the active operation of the same by August of the same year. In the meantime, important modifications of the import duties levied on industrial materials and machinery are covered by the Budget Law issued on January 1, 1908. The 20 per cent reduction allowed on certain specified articles of United States origin by the act of June 30, 1906, is continued.

Imperative restrictions are applied to the importation of foodstuffs and beverages on which preservatives detrimental to the public health have been used, and an active propaganda is to be initiated, under Government supervision, for the introduction and popularization of native products abroad.



CHILE

Chilean energy has never been more ably demonstrated than by the elasticity with which the nation has recovered from the great losses sustained through the earthquake of 1906, and under President Montt a veritable fury of progress and industrial development seems to have seized upon the nation, bankers estimating that within the last three years about \$360,000,000 have been invested in new industrial undertakings. This sum is being expended in working new nitrate fields; in resuming copper mining; developing gold, silver, tin, and coal deposits; building railways, steamships, canals for irri-

gation, cold-storage plants, sawmills, etc.; stocking sheep farms, and inaugurating a great number of smaller enterprises.

The capital city of the Republic, Santiago, is classed as one of the most attractive cities of the southern continent. At its principal port, Valparaiso, the Chilean Government is spending \$10,000,000 for harbor and dockage facilities, thus making it the most complete port on the Pacific Ocean, and, although Chile is well provided with railroads, the Government is now at work on a scheme for a longitudinal road to run the entire length of the country, and to connect the capital with every section. The enormous wealth of the nitrate fields of Chile brings to the country a vast revenue, which makes it most independent of other sources for the maintenance of the Government. Chile is anxious for the completion of the Panama Canal, so that it can get into closer touch with the United States.

FOREIGN RELATIONS.

Diplomatic representation between Chile and Peru was reestablished during the year, and conventions were signed with the Bolivian Government which have settled satisfactorily the difficulties originating in the vagueness of certain protocols that were added to the treaty of peace of 1904. The relations with the Argentine Republic have been strengthened since the settlement of the boundary question, and in February, 1907, two conventions were signed with that nation, one of them for the exchange of official and literary publications, and the other for the prevention of counterfeiting of legal money and bonds and certificates of indebtedness of either country in the territory of the other. Both Governments are also considering the means of giving ample facilities to commercial intercourse with each other.

A treaty ratified at Berlin on April 9, 1907, provides for reciprocal most-favored-nation treatment between the Governments of Chile and Denmark in all that concerns commerce and navigation. It is agreed, however, that any special reductions of customs, or any commercial privileges, as well as special concessions in the matter of port and mole duties and navigation dues, which may be accorded by Chile to other Central or South American states exclusively can not be claimed by Denmark under the most-favored-nation clause of the treaty.

A treaty providing for the exchange of postal money orders has been signed with Great Britain, and another with Japan in regard to parcels post, and on August 23, 1907, the Senate of the Chilean Republic ratified the Universal Postal Convention of Rome, signed on the 26th of May, 1906, and which became effective on October 1, 1907.

Señor ANÍBAL CRUZ, who succeeded Señor WALKER-MARTINEZ as Minister of Chile in Washington, on the occasion of presenting his

credentials to the President of the United States on November 16, 1907, communicated the desire of his Government for the maintenance of the happy relations existing between the two countries, which expression was earnestly echoed in the reply of President ROOSEVELT.

FINANCE.

After having paid all the expenses of the budget of 1906, as well as the extraordinary expenses caused by the earthquake in August of that year, the financial position on the 1st of January, 1907, was satisfactory, with a Government surplus of nearly \$4,000,000.

The receipts for 1907 were estimated at \$63,500,000, approximately, and the expenditures at \$64,500,000, approximately, less \$7,000,000 derived from appropriations for the construction of the Arica to Alto de La Paz Railway and the sewer system of Santiago.

On September 16, 1907, the Chilean Government, represented by its Minister Plenipotentiary in London, issued treasury bonds payable at the banking house of the Rothschild firm in London on March 24, 1909, for the floating of a loan of \$5,500,000, while another loan of \$5,000,000 has been negotiated through the German Transatlantic Bank for the reconstruction of the city of Valparaiso.

According to a statement published by the Bureau of Accounts of the Department of Finance, the conversion fund amounted on June 30, 1907, to \$29,400,000.

By law of the Chilean Congress, promulgated on December 9, 1907, the President of the Republic was authorized to order the coinage, to an amount not exceeding 10,000,000 *pesos*, of silver pieces of 40, 20, 10, and 5 *centavos*. The law in reference prohibits the exportation of subsidiary silver coins under penalty of seizure.

The financial bill recently passed by the Chilean Congress has for its leading features the following provisions: Customs duties will not be paid in gold, as has been the practice hitherto, but in paper money of legal currency. The total amount of paper issued remains definitely fixed at 150,000,000 *pesos* at a normal value of 18 *pence* per *peso*. The Government, which now has 100,000,000 *pesos* in gold with which to redeem its notes, is authorized, when the time for conversion arrives, to contract, if necessary, a loan for the redemption of the balance.

The sources from which Chile derives her ordinary revenues are: The duties collected by the custom-houses of the Republic on foreign merchandise and export of nitrate and iodine; post and telegraph receipts and products of the State railways; national taxes, taxes and dues collected by the fiscal treasurers of the country; dues received by the Chilean consuls in foreign countries, etc.

The total customs revenue for 1907 reached the sum of \$43,309,925, against \$40,793,846 in 1906, an increase of \$2,516,079.



A VIEW OF SANTIAGO, THE CHILEAN CAPITAL.

The city was founded by Valdivia in 1541, and is situated in a fertile plain on the banks of the Maipo, near the fort of the Andes, at an elevation of about 1,850 feet. It is connected by rail with the port of Valparaiso, which is 42 miles distant, and is noted for its beautiful parks and the splendid architecture of its buildings.

The proposed modification of the customs duties on cattle, sheep, and certain textiles has been enacted and promulgated as a law, whereby the suspension of cattle duties and the reduction, by 50 per cent. of duties on the other articles specified will be effected.

Chile is under an extremely high protection tariff, and if some articles are exempt from duty on their importation into Chile, the greater part pay a high import rate; nevertheless, the importation of foreign merchandise is constantly developing.

COMMERCE.

The total foreign trade of Chile in the year 1907 amounted to \$209,423,343, as against \$192,471,448 in the preceding year, the imports reaching the sum of \$107,193,877, as compared with \$86,759,639 in 1906, and the exports, \$102,229,466, in comparison with \$105,711,809 in 1906.

An increased trade value for the Republic in 1907 of \$16,951,895 is shown by these figures. This increase is entirely on the side of imports, for which a gain of \$20,434,238 is shown, while exports decreased by \$3,482,333. The falling off in export values is attributable to lower prices for nitrate in the latter part of the year, the aggregate value being given as \$75,264,076 against \$79,320,710 in 1906.

In 1907, of Chile's total imports, \$11,439,821, or 10.6 per cent. came from the United States, as against 9.9 per cent in 1906, while of the total exports \$17,944,580, or 17.5 per cent, were sent to the United States, against 15.1 per cent in 1906. The leading articles imported from the United States were cotton cloths, \$654,707; illuminating oils, \$741,316, and lumber, \$1,517,046.

Great Britain heads the list of countries of origin for imports, with \$28,215,000 in 1906, followed by Germany, the United States, France, and other countries.

Among the countries of destination of exports Great Britain is likewise at the head of the list, being credited with \$41,000,000 for 1906, followed by Germany, the United States, France, and other countries.

The year 1907 was marked by a great business activity in Chile, as is shown by the great increase in imports reported. During the two preceding years, many nitrate, sheep, cattle, and other companies were started and purchases abroad of goods led to greater import values. Exports, while not keeping pace with this increase, were, however, well maintained, and would have reached higher proportions were it not for the scarcity of labor prevailing throughout the Republic. New industries have given extended employment to workmen, and the deficiency in men arising from this fact was not made up by immigration. As a consequence, wages went up. This was espe-

cially the case in regard to the rebuilding operations required by the disastrous earthquake of 1906.

The general classification and values of imports were as follows in comparison with the preceding year:

Animal products, \$7,675,393, a gain of \$2,271,000; vegetable products, \$11,747,656, a loss of \$834,000; mineral products, \$21,266,111, a gain of \$4,213,000; textiles and manufactures thereof, \$24,663,173, a gain of \$4,431,000; industrial oils, fuels, etc., \$15,073,627, a gain of \$5,461,000; paper and manufactures, \$2,553,717, a gain of \$557,000; wines and liquors, \$2,345,207, a gain of \$900,000; drugs, perfumery, etc., \$2,147,377, a gain of \$600,000; machinery, etc., \$17,970,655, a



PUNTA ARENAS, CHILE, ON BRUNSWICK PENINSULA, TERRITORY OF MAGELLAN.

This is the southernmost city of the globe and coaling port for steamers passing through the Strait of Magellan. It was formerly a penal settlement but is now an enterprising commercial city of 10,000 inhabitants and the leading port in southern Chile for the export of fur, wool, and minerals.

gain of \$3,300,000; arms and munitions, \$1,236,119, a gain of \$656,400; miscellaneous, \$614,442, a gain of \$121,300.

Exports show the following classifications and values:

Animal products, \$6,079,769, a loss of \$1,200,000; vegetable products, \$4,858,038, a gain of \$1,400,000; mineral products, \$88,340,939, a loss of \$3,800,000; wines and liquors, \$47,223, a loss of \$24,600; specie, \$602,250, a gain of \$308,500; miscellaneous, \$366,934, a gain of \$95,000.

The effect of extensive building is shown in the character of imports—galvanized iron, cement, nails, lumber, etc.—being ordered in large quantities.

Machinery for the nitrate works is imported chiefly from the United Kingdom and Germany, but in the case of electrical goods the United States and Germany lead. The United States also leads in the supply of farming machinery, while for the new development of the lumber industry Great Britain and the United States share about alike, the former country furnishing the engines and the latter the sawmills.

Fifty-one per cent of the total imports represents articles for use in native industries and only 8½ per cent articles of luxury. Among the most important of the former are mining, agricultural, industrial, and railway machinery, imported principally from Great Britain, United States, Belgium, and France.

The countries of greatest importance in the international commerce of Chile are Great Britain, Germany, the United States, France, Australia, the Argentine Republic, Italy, Peru, Belgium, and Spain.

Great Britain sends to Chile mineral coals, textile fabrics, machinery, and manufactured iron; Germany, machinery and dry goods; France, dry goods and other manufactured articles.

Exports of nitrate to the United States were valued at more than \$13,000,000.

As regards the exports, Great Britain receives nitrate, copper, barley, wool, and other farm produce; Germany, nitrate, borax, wax, hides, and soles; the United States, nitrate and iodine; France, nitrate and copper; Holland and Belgium, nitrate, and Peru, wheat and flour.

The small importance of the trade relations between Chile and the United States is due to several causes, principally lack of interest on the part of American capitalists in South American investments, while imperfect knowledge of the progress, productive capacity of the country, and the enormous wealth of its soil are also to be counted among other factors in the slow development of the commercial relations between the two countries.

The commerce between Chile and Brazil during the year was as follows: Exports from Chile to Brazil, 1,575,148 kilograms of merchandise consisting of kidney beans, carob beans, lentils, potatoes, chick-peas, walnuts, small coconuts, and wines; as compared with 1906 there was a decrease of 280,477 kilograms. The imports from Brazil consisted of 2,235,288 pounds of coffee, valued at \$188,000, showing an increase over 1906 of \$60,000.

PRODUCTION AND INDUSTRIES.

Although agriculture in Chile offers a wide field to man's activities, the richest products of the country are from its mines, particularly from its immense nitrate deposits, nitrate being indispensable to modern industry and agriculture. Until a few years ago English capital only was invested in the development of the nitrate industry.

but at present United States, Chilean, and German capital has entered the field, and under this influence powerful companies have developed, increasing the production of nitrate of soda, borax, and iodine over 30 per cent during the last five years, exports now reaching the enormous amount of 3,500,000 tons.

The Chilean nitrate year 1907-8, ending with March, 1908, shows a total production of nitrate of 41,179,058 *quintals* (101 pounds), as compared with 40,141,522 *quintals* in 1906-7. Export figures were fixed at 45,000,000 *quintals*, which quantity, though 1,500,000 more than in the preceding year, was, nevertheless, lower than the limit originally established for 1907-8 by nearly 10,000,000 *quintals*.

Shipment abroad was made of 39,875,735 *quintals* (over 2,000,000 tons), as compared with 37,843,000 *quintals* exported in 1906-7, to the following destinations: Europe, 31,210,470 *quintals*; United States, 7,461,668 *quintals*; and elsewhere, 1,203,507 *quintals*, in each case an advance being made over the previous year.

The price of nitrate was maintained during the first nine months of the year, and it was only from January to March, when retained stocks were placed on sale, in spite of the unfavorable conditions in the world's markets, that a decline in value occurred.

The present nitrate association, which is a continuation of the combination of producers entered into in 1900 and renewed in 1906, expires on March 31, 1909, and negotiations for its renewal for a further period are now in progress.

At the opening of 1907 nitrate works in the country numbered 121, operated by machinery almost exclusively of European origin, mainly from Great Britain.

Most of the nitrate industries of Chile have been organized with English capital and under English management. The railroads in the north of the country were in part established for the use of this enterprise. The two most important lines belong to the English Nitrate Railway Company, whose shares are quoted in the Paris bourse, and to the Antofagasta and Bolivian Railway Company. A French company in Dunkirk maintains a fleet of sailing vessels, which carry coal from Europe and return laden with nitrate.

Greater activity was shown by the mining interests of Chile during the first six months of 1907 than for the same period for several years. This is particularly true in copper mining, the exports showing a gain of 2,000 tons during that time over the same period of 1906. During 1907 several rich discoveries in silver and copper properties were made in the Coquimbo, Atacama, and Antofagasta districts. The rapid advance of these districts is only delayed for lack of better transportation facilities. Some of the newly reported discoveries are said to be fabulously rich, yielding as high as 60 and 70 per cent of silver, while others are said to yield from 80 to 90 per cent

of copper. The gold fields of southern Chile so far have not proven to be very rich, outside of now and then a pocket. The yield for the first six months of 1907 barely covered the expenses of working the dredges, by which means nearly all the mining is done in that district.

The salt deposits of Chile are said to be the greatest in the world. The Salar Grande mine, in the Province of Tarapaca, about 60 miles south and east of Iquique, covers an area of 80,000 acres to the depth of 25 feet. This body of salt is nearly pure and contains more than 14,000,000,000 tons, or enough to supply the world's demands for many decades. There are several other deposits in the interior that cover two or three times the area of the above.



A CHILEAN CARTIER.

The coal at present mined in Chile has been almost unanimously classified as "lignite," but there are other kinds of coal that can not be so classified. The deposits that are at present being mined are situated in the southern coast of the Republic. The important deposits extend a considerable distance under the sea, and a coal mine is also being exploited in the Territory of Magallanes, near Punta Arenas.

The culture of flax in Chile is protected and encouraged by a governmental bounty, and \$150,000 is set apart annually for the payment of bounties on flax produced, manufactured, and exported in the Republic for a period of twelve years.

The present production of wheat amounts to 25,510,000 bushels and that of barley to 5,500,000 bushels. The Chilean grape, the cultivation of which is on a par with that of France, yields over 66,000,000 gallons of wine. In the central portion of the Republic alone there are 1,500,000 head of cattle, while in the Magellan Straits, where lands until lately have been considered worthless, there are at present over 1,800,000 sheep. The development in the cattle-raising industry is shown by the great increase in wool exports.

Besides the activity shown in the agricultural and mining industries, the construction of works of public utility, such as railroads, harbor improvements, school buildings, and others, national foundries and machine works are also worthy of attention, furnishing locomotives, mining machinery, agricultural implements of home manufacture, besides other industries, such as pottery works, shoe factories, and others, canning and packing plants, etc., for home consumption.

At the exposition held in Santiago during the year the exhibition departments included forestry, agriculture, horticulture, fisheries and fish culture, and also machinery, appliances, methods, and productions. The Chilean Government made a liberal appropriation to assist the enterprise, as the country is making great progress and much interest is being taken in the development of her natural resources.

The exposition of the shoe and leather industries of the Republic, held in Santiago during the latter part of 1907, has served to show that they are at present in a remarkable condition of progress and perfection. The total capital invested is estimated at the minimum amount of \$15,000,000. These two industries promote and give life to several important ones, such as the preparation of tanning woods, lime, etc., and the manufacture of pasteboard boxes, the total annual production of which industries ranges from \$4,000,000 to \$5,000,000.

The acclimatization and raising of salmon in the Imperial River and its affluents has given highly satisfactory results. A company has been formed at Punta Arenas, with a capital of \$15,000,000, for the marketing of frozen meats, principally in Tacna. Specially constructed steamers are to be provided, as well as model abattoirs, while extensive land areas are to be required for the raising of cattle.

RAILROADS.

The receipts from the railroad lines operated by the Chilean Government in 1907 were over \$25,000,000, and the estimate for 1908 anticipates an advance over these figures of \$2,000,000. The lines

have at present an extent of nearly 1,800 miles, and many improvements in the service have been inaugurated, especially in connection with the handling of live stock and farm products.

In 1906 the rolling stock of the Government railroads aggregated 4,000 cars, representing about 50,000 tons; in 1907 this amount was increased by 1,400 new cars, representing 40,000 tons more; adding to this amount the 12,000 tons represented by 800 private cars operated in connection with the Government railroads, the total weight of rolling stock is 102,000 tons. The number of locomotives purchased in 1907 was 140. The merchandise transported over the Government lines in 1906 aggregated 2,800,000 tons, and 3,400,000 tons in 1907, an increase of 20 per cent.

The total appropriation for expenditures of the Government railroads during the year 1908 amounts to \$15,468,750.

The railways in Chile are both State and private property. 1,396 miles belonging to the Government and 1,491 to companies. The important longitudinal line, whose construction has been undertaken by the Government at a cost of \$37,000,000 under the contract system, has already been constructed from Osorno in the south to Calera in the north, but is to be extended as far as Taena. Among the privately owned roads, that running between Antofagasta and Oruro, in Bolivia, is one of the most important. This railway taps rich nitrate and borax fields and mining districts.

In the neighborhood of Pitrufquen and Temuco, 94½ miles have been added to the railroad service and 600 miles are under construction. The Arica-Alto de La Paz is the most important of those under construction, as it will provide increased facilities of communication with Bolivia. Much rolling stock has been purchased and placed in service, and many concessions granted by the Government for the inauguration of new lines.

The construction of the Trans-Andine Railway via Uspallata is progressing, the Government having taken over the section between Los Andes and Juncaal; the second section is promised by the middle of 1908, and the whole is to be completed in June, 1910. On the Trans-Andine via Antuco, the Government has taken over 38 miles, and work is being continued.

MARITIME MOVEMENT.

The progressive spirit animating the Chilean Government under President Moxrr's initiative is showing itself not only in extensive railway contracts and local improvements, but also a subsidized steamship service between Valparaiso and Panama has been authorized for which the Government guaranty is \$100,000 annually. It is especially stipulated in the terms of the bill that the trip shall be made within eight days, thus establishing, via the Panama Isthmus, speedy traffic between the east and west coasts of the Continent. In the same ratio,

the growth of the merchant-marine service is being fostered, and at present Brazil alone, among the countries of South America, exceeds the tonnage reported for Chilean ships, which aggregates 156,316 tons.

The statistics relating to the movement of vessels in the port of Valparaiso during the year show entries from foreign ports of 466 steamers and 145 sailing vessels. Coastwise entries were 607 steamers and 31 sailing vessels. Clearances for foreign ports, 417 steamers and 63 sailing vessels; coastwise clearances, 660 steamers and 113 sailing vessels.

POSTS AND TELEGRAPHS.

The postal movement for the Republic during the year, according to approximate estimates, amounted to 84,796,405 pieces of mail matter, against 77,087,665 in 1906. The number of international parcels post received during the year was 59,465, and those sent were 3,646. The movement of interior parcels post during the last two years assumed such proportions that the Government was obliged to enforce restrictions in order to prevent the accumulation of packages, which was an obstruction to the proper operation of the various post-offices. The postal service was improved in accordance with the necessities of the Republic: 863 offices were in operation on January 1, 1907, 9 new ones having been created during the preceding year.

The telegraph lines of the Republic have an extent of 8,680 miles, with 16,760 miles of wire, and 329 offices were in operation during the year.

PUBLIC INSTRUCTION.

Public education in the Republic has been encouraged with the increase of national wealth and the schools and universities are on a par with the best institutions of learning of the world. Under the board of primary education over 3,000 schools have been opened in the Republic for the free education of over 200,000 students. The professional schools, following the best systems of modern education which have been established in the country for the last ten years, have also received special attention. Agricultural and mining schools, so useful in the development of the country, have not been forgotten, nor the normal schools, where primary school teachers are graduated. Secondary education may be obtained free in the national lyceums or in private institutions. The average attendance at these secondary schools is estimated at 25,000 pupils. The general supervision and control of the whole system of public instruction is under a board of public education, which also has direct supervision in the election of the director of the University of Chile, its principal institution for superior or higher education.

POPULATION.

The population at the close of the year 1907 had increased by 526,864 over the preceding census of 1895, the figures for the two

years being 3,239,009 and 2,712,145, respectively. The two centers of population are the Departments of Santiago and Valparaiso, the former comprising 408,126 and the latter 188,455 inhabitants at the close of the year. For Santiago a gain of nearly 100,000 is reported, while Valparaiso shows an increase of over 50,000 in the twelve-year period.

The two great drawbacks in the economic life of the country are a lack of capital to give life to the home industries and scarcity of labor. To eliminate the latter the Government has had to struggle against the difficulty of the great distance of the country from the principal European centers, but now, due to an excellent colonization plan, has established a well-directed flow of immigration. This system will secure the needed labor to work and industrial resources. The number of immigrants entering the Republic in 1906 was 1,442, while during the first six months of 1907 the number was 3,790.

PUBLIC WORKS.

The construction of public works received a great impulse during the year under review. The Government contributed \$75,000 to the continuation of the works of the water and sewer systems in Punta Arenas, Magellan Territory. There is under consideration the construction of a telegraph line to establish communication between that territory and the center of the country, and a steamship company has been subsidized for service with Punta Arenas. Twenty-four permits were granted during the year for the installation of electric power, light, and heating in various cities of the Republic.

The projected harbor improvements of Valparaiso alone will cost about \$20,000,000. This amount suffices to show the magnitude and importance of the work.

The Government also proposes the building of several bridges and has advertised in the United States for bids from bridge contractors.



The tour recently made by the Colombian President-General REYES throughout the Republic with the purpose of personally inspecting the possibilities for native industries is evidence of the attitude of the present administration toward national development. Prior to his departure from the capital the President made a notable address, in which the importance of opening up new transportation routes for the carrying of products to nearby markets was urged.

FOREIGN AFFAIRS.

The National Constituent Assembly on April 24 approved the boundary treaty with Peru, which was signed in Bogota on September 12, 1905, between plenipotentiaries of the Republic and Peru. By the terms of the treaty the question of boundary lines between the two countries is submitted to the arbitration of His Holiness the Pope, or of some dignitary designated by the Pope. The treaty is expressly subordinated to the treaty between Peru and Ecuador of August 1, 1887, now in process of hearing by His Majesty the King of Spain, and is to be effective only in case the award of the King of Spain, as between Peru and Ecuador, adjudges the territory claimed by Colombia as belonging to Peru.

On May 17 a treaty signed with Brazil on April 24 was ratified, by the terms of which the boundaries of a part of the frontier between Colombia and Brazil are definitely fixed and the free navigation of the Amazon and other Colombian-Brazilian rivers is stipulated.

On August 5 the Universal Postal Convention of Rome was ratified, the Colombian Government reserving to itself the right to make special conventions with those countries that maintain commercial relations with the Republic.

The signing of a treaty of amity, commerce, and navigation by the Republic and Ecuador, and the exchange of ratifications thereof on October 24, mark an important era in the development of both countries. The Colombian colony in Ecuador numbers more than 40,000, and the treaty in reference covers all questions of international law that might arise between countries so closely allied by natural ties.

The Government was represented at the Third International Sanitary Conference, held in the City of Mexico during the month of December.

FINANCE.

The national revenues amount to about \$14,000,000 annually, collected from customs and taxes on salt, emeralds, liquors, hides, tobacco, cigarettes, matches, and stamps. The monetary unit is the gold dollar, but a compulsory paper currency has circulation at the legal rate of 1.000 to 1. The foreign debt is but \$15,000,000, which is served punctually, so that national credit is enhanced daily.

The *Banco Central* has a monopoly of Government banking, collecting all customs dues and revenues of the Government, and all Government funds are banked with this institution.

At a session of the Council of Ministers, held on March 5, 1908, the Government resolved to introduce important economies in the Government expenditures for 1908, as a result of which the amount originally appropriated has been reduced from \$16,244,384.20 to \$14,237,997.08, thus effecting a total saving of \$2,006,315.12.

The revenues collected by the different custom-houses of the Republic during 1906 amounted to a total of \$7,294,497.70 gold, the expenditures being only \$590,628.25, while revenues produced by the salt deposits of Zipaquira, controlled by the Government, amounted in 1907 to \$518,761.40 gold, as compared with \$415,672.69 gold in 1906, an increase of \$103,088.71 gold.

COMMERCE.

The total trade of the country in 1907 is estimated at about \$26,000,000, divided equally between imports and exports.

Imports from the United States were valued at \$3,169,382, while exports to that country figured for \$6,466,429. The total foreign trade in 1906 was valued at \$24,188,160, composed of imports, \$9,353,345 and exports, \$14,834,815. In that year, the latest for which complete Colombian statistics are furnished, the United States supplied \$2,961,671, or 31.6 per cent. of the imports, and took \$6,669,461, or 45 per cent. of the exports. The leading article imported from the United States was cotton cloths, valued at \$713,168, while exports thither comprise coffee to the value of \$4,000,000, cacao, hides, bananas, and rubber.

The total shipments from the port of Cartagena during 1907 aggregated \$2,816,935.18 in value, as compared with \$1,593,454.06 in the preceding year. The leading items shipped were: Coffee, \$1,140,936.36; gold, \$1,060,572.88; hats, \$125,999; rubber, \$121,797; platinum, \$93,539.16; cedar and mahogany, \$72,750.93, and ipecac, \$53,420.35.

A marked increase is indicated in regard to coffee and gold exports, practically double the value being reported for 1907 as compared with 1906 in both items. In hats also the advance is made from \$16,300 in the previous year, while the other articles cited show noteworthy increases.

At Barranquilla, the principal port of the Republic, the imports amounted in 1906 to \$5,783,055 and the exports to \$7,685,525. The principal exports were: Coffee, 364,269 bags; hides, 256,133 in number; tobacco, 29,732 bales; dividivi, 23,098 bags; plants, 2,154 boxes; ivory nuts, 13,402 bags; rubber, 1,618 bales; cotton, 495 bales; cotton seed, 7,392 bags; minerals, 10,818 bags, and asphalt, 2,666 bags.

About 67 per cent of Colombian coffee goes to the United States, most of the tobacco to Germany, and the cotton to Liverpool or Havre. The chief imports into the country are flour, lard, petroleum, and cotton goods from the United States; sugar, rice, and potatoes from Germany, and cotton goods from Great Britain.

The importation of cotton cloths of all kinds through Cartagena during the half year ended June 30, 1907, reached the amount of 493,825 kilograms in weight, of which 263,952 came from England

and 185,425 from the United States; the rest from Italy (25,383), Germany (9,061), Spain (6,633), and France (3,371).

PRODUCTION AND INDUSTRIES.

That President REYES is continually endeavoring to take advantage of the natural resources of his country is shown by the decree of August 13, for the protection of the national forests, which contains specific restrictions to be applied to the exploitation of rubber and tagna or vegetable ivory.

The mineral and agricultural resources of the Republic are attracting unusual attention. The remarkable location of the country with relation to both the Atlantic and Pacific and its intermingling of fertile valleys and cool plateaus give it great opportunities of exploitation in these respects. It is interesting to note that German merchants and capitalists are fully appreciative of what can be done in Colombia and are losing no opportunity to increase their investments.

The banana industry has been developed most satisfactorily, exportation having increased to such an extent that the cultivation of the plant covers already a very extensive area of fertile land. During the period from January 1, 1906, to June 30, 1907, the United Fruit Company shipped to the United States from La Cienaga, in 109 steamers, 2,500,000 bunches, valued at \$1,000,000, approximately. In the Santa Marta District the exportation of bananas commenced in 1892, when 171,891 bunches were exported, and in 1907 the exports amounted to 1,858,970 bunches, valued at \$711,574.23. The exportation of bananas is exempt from the payment of duties until 1914.

All the region of the Leon River in a radius of over 150 leagues (450 miles) is full of ivory nuts, which are collected for several merchants of Cartagena and Turbo and exported by them to Europe. The production of vegetable ivory in Cartagena during the year 1906 amounted to 4,125,000 pounds, as compared with 3,383,500 pounds during the preceding year. The exploitation of ivory nuts is free from April 1, 1908, in the Atrato River Basin, the basin of the River Leon, and in the region adjoining the Gulf of Uraba. An export duty of \$2 per ton will be collected on all the nuts exported. Most of the ivory nuts exported are from this territory.

A conservative estimate of the output of tobacco in the Republic of Colombia, principally from the districts of Carmen, Savana, and Sinu, places the 1907 crop at about 120,000 bales of 62½ kilograms each. Owing to the fact that German merchants have advanced very large sums of money to the tobacco growers of these districts, the entire output goes to Bremen. The manufacture of cigarettes in the

country is declared free, but subject to the provisions and regulations in force.

The establishment of new industries is being fostered and, in particular, the cultivation of rubber and the planting of cotton. There is but little increase in the output of rubber in the Republic, though the establishment of plantations is extending. Improvement in methods of tobacco culture is urged, and the Government proposes to establish a model seed-culture plant for the improvement of seed and its distribution. The manufacture of straw hats and cotton textiles is recommended.



A SECTION OF THE HISTORIC WALL OF CARTAGENA, COLOMBIA.

Erected by Spain at a cost of \$55,000,000, for protection against pirates. Cartagena was the port whence Peruvian gold was shipped to Europe, and is now one of the leading ports of Colombia.

In consequence of the increased manufacture of cotton goods, their importation is decreasing, the imports for the year being calculated at \$4,000,000.

The Government, convinced that cotton growing can be successfully carried on in the Republic, has provided a premium of \$1 for each *quintal* of cotton which may be presented to the authorities packed for shipment or home consumption before October 1, 1908, after which date the premium will be paid on such cotton as may be presented to the custom-house for shipment abroad. Further boun-

ties include a premium of \$1 per *quintal* on all tobacco exported until July 20, 1910; a premium of \$1 on caucho (rubber) on each *quintal* exported from present plants, and in case of new plantations the Government agrees to pay a premium of \$4 for every *quintal* of the product of such plantations as may be established and cultivated in the Republic from and after July 20, 1907; a premium of \$1 per *quintal* on coffee that may be exported through the custom-houses of the Republic until July 20, 1910. The Government also issued a decree reducing the export duty on cattle (steers and other males) from \$3 to \$1 per head. This will at once stimulate the exportation of cattle. This action on the part of the Government has given general satisfaction. The premiums provided for are to be paid by bonds protected by 5 per cent of the customs duties on imports.

The straw known as *paja toquilla* has been made the subject of a Presidential decree, whereby an export duty of 75 cents is imposed on each kilogram thereof exported for the manufacture of Panama hats, the purpose being to stimulate this industry.

The growth of cane for the manufacture of sugar and of denatured alcohol for use in the arts is being encouraged, and in the Department of Bolivar one large sugar plant is rapidly being carried to completion and another is under promotion.

In the region of Marmota and Rio Sucio there are mineral deposits said to be richer than those of the Transvaal, and all that is lacking for their exploitation is transport facilities. A large French company has been organized to operate mines in the Department of Santander, and in all the coast region of the Republic there exist immense and abundant mines of coal, iron, copper, lead, cinnibar, etc. The Condoto platinum deposits are said to be the most extensive in the world; the emeralds of Muzo are of recognized preeminence among jewels, and the mines of the Republic can furnish an output of coal sufficient for the needs of the whole Continent.

The platinum deposits of the Republic are comparatively easily accessible for international exportation. Most of the platinum extracted is exported from the Pacific port of Buenaventura, on the bay of Choco, which is conveniently reached, in a few days, by steamers sailing southward from Panama City. This branch of mining has never been taken up extensively, and only 661 pounds of the product were turned out from the Choco in 1905. It is reported that 4,202 pounds of it were shipped to the Spanish King in 1788, and that it was found in the country as far back as 1720. The export duty on the metal is 1 per cent ad valorem.

The section of the country most noted for its gold production is the Department of Antioquia, followed by Cauca, Bolivar, Tolima, Santander, Magdalena, Boyaca, Cundinamarca in the order named. Antioquia comprises a collection of cordilleras unusually favored for the formation of gold veins. Labor conditions are excel-

lent and the climate is not only salubrious and temperate, but adapted to agricultural and pastoral enterprises. Gold is found in almost all the region of the Atrato Province.

A recent law authorizes the Government to establish a monopoly on the exportation and sale abroad of the following metals: Platinum, palladium, iridium, rhodium, osmium, ruthenium, and all radioactive metals. This law also contains dispositions respecting the taxation of emerald mines and the denunciation and taxation of copper-producing properties.

An executive decree of January 20, 1908, increases the price of salt coming from the Chita and Muneque mines and limits the output in such a manner as to supply only the neighboring towns and the northern part of the Republic. This measure will prevent the shipment of salt from the aforesaid mines to Tumdama and Boyaca and will eliminate competition with the product of the Government salt mines at Zipaquira.

During the years 1905 and 1906 there were granted in the Department of Cauca 261 mining claims.

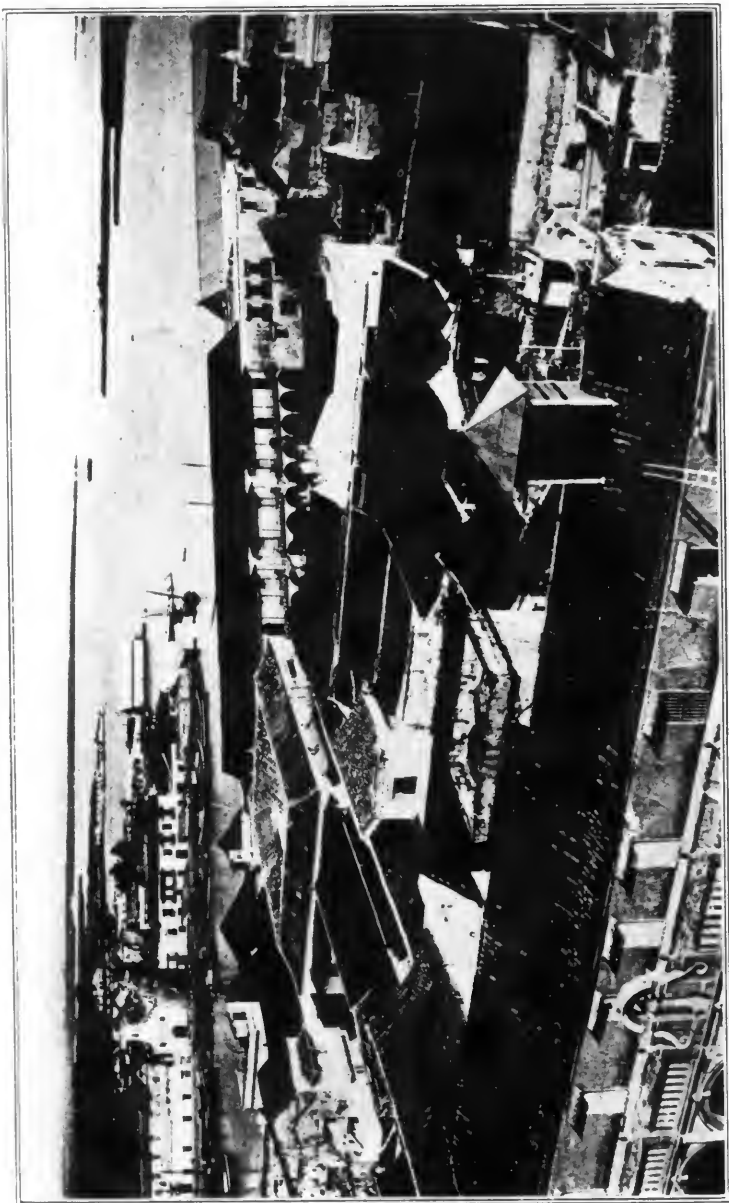
Among the obstacles encountered in mining operations in the Republic are scarcity of labor, unfavorable climatic conditions in some sections, and the difficulty of adequate communications.

Established industries include cotton mills, shoe factories, packing houses, brick and tile factories, and petroleum refineries, while deep-sea fishing on the coast seems worthy of consideration.

COMMUNICATION.

About 350 miles constitute the total of working railway lines, but 16 lines are under construction, and during the year 1907 the Government expended \$398,373.55 in the construction, repair, and improvement of the public roads of the nation. In many instances the extension of wagon roads into new and practically undeveloped territory necessitated the bridging of important streams and the crossing of difficult and dangerous mountain passes. The amount to be paid during 1908 by the Government to railroad companies on account of subsidies, interests, and other expenses on railroad lines under exploitation or construction is \$900,000.

In addition to the numerous wagon roads that have recently been improved and constructed in the Republic, the Cauca Railway, which has been many years under construction and in which several millions of dollars of Government funds have been invested, is nearing completion. The construction company now has at its disposal \$1,400,000, plus 50 per cent of the gross receipts of the customs revenues of the Pacific coast of the Republic, with which to complete the building of the line, and it is expected that the railway will be terminated as far as Papagayeros before the close of 1908 and that the entire line will reach Cali by July, 1910.



A VIEW OF CARTAGENA, COLOMBIA

Cartagena, called the "Heroic City," is situated on the Caribbean coast, and was founded in 1533. It was the first city of Colombia to declare Independence of Spain in 1811, and has been several times besieged, the most memorable siege being that of 1815.

In reference to railway development, the line leading from Cauca to the port of Buenaventura, on the Pacific side, is characterized as the most important of all the lines in construction, because of its proximity to the Panama Canal, and the fact of the discovery and actual development of rich coal deposits at Cali and in the Occidental cordillera of the Andes. Examinations which have been made of these mines indicate them to be of sufficient body to supply all vessels passing for the canal. With this end in view, a coaling station will be established in due time at Buenaventura. It is believed that the exploitation of these mines will not only pay all expenses of the construction of this road, but leave a large profit.

The construction of Pan-American links in the Republic is dependent on the working out of the general railway scheme which President REYES has inaugurated, and which is progressing. With Bogota connected by railway with the upper Magdalena River at Girardot, there is opportunity for carrying forward the projects east of the Magdalena to the city of Medellin, which is the first point in the Government plan of consolidating into a single system the lines which will give access from Buenaventura on the Pacific coast to the capital. Under this scheme Medellin is on a branch of the Colombia Central line, which is expected to constitute a main trunk of the Pan-American outlet on the Caribbean. The American capitalists who hold this concession have begun the preliminary work on the Caribbean terminus at the mouth of the Leon River, in the Gulf of Uraba, where it is proposed to establish the city and port of Ciudad Reyes. This line follows the rich Cauca Valley, and there is every reason to assume that the capital necessary for continuing the enterprise, which has the active support of the Government, will be raised when the general financial condition improves.

The report of the Colombian Northern Railway Company for the year to June 30, 1907, shows very satisfactory progress. The gross receipts amounted to \$150,000, and the net revenue is reported as \$90,000. The economical working of the road has been still further improved, and the ratio of operating costs to income is reduced to 40.31, against a former 43.29.

The new regulations governing the navigation of the Magdalena and other Colombian rivers as recently promulgated provide for the payment, among other charges on navigation, of \$2 gold per ton on foreign goods and \$1 on native goods. Provisions are exempted from payment of the duty in question.

POSTS AND TELEGRAPHS.

The postal service comprises 520 offices and as many telegraphic stations, controlling about 8,000 miles of wire. New customs regulations for merchandise entered through the parcels post were issued on October 19. The Department of Posts and Telegraphs has ex-

tended, for a period of five years from January 1, 1908, the contract made on June 12, 1906, for the construction, repair, and operation of the Federal telegraph and telephone lines.

Among the Government decrees modifying tariff duties during the year were the following: On June 6 the surtax of 70 per cent of the duty on wheat imported into the departments on the Atlantic coast was suspended for an indefinite period. The action of the Government is due to the great devastation caused by locusts in the departments on the Atlantic coast. The same decree provides that flour made of imported wheat and brought into the interior of the country shall be considered as imported flour, and consequently subject to the regular customs duties. On December 5 the free importation of maize and rice at Atlantic ports was extended until May 1, 1908. This measure was taken as a result of the shortage of the crops in reference throughout the Republic. Others include one abolishing the monopoly on hides and substituting therefor the tax on slaughter of cattle; one reducing from 15 *centavos* to 10 *centavos* per kilogram the tax on tobacco, the reduction to be made at the rate of 1 *centavo* every two months; and one abolishing the fluvial tax on articles of export. Further decrees provide for a reorganization of the diplomatic and consular service of the Republic.

It is the desire of President REYES to attract moneyed enterprises to the Republic, and Government aid and protection are promised and guaranteed to the fullest extent, and the country is to be made better known throughout the world by organizing in Bogota a Central Colombian Office of Information, which will have branches in London, Paris, Brussels, Hamburg, Barcelona, and New York. The energy which German capitalists are exhibiting in developing commercial and industrial opportunities in the Republic is worthy of consideration.



COSTA RICA

Under President GONZÁLEZ VÍQUEZ the maintenance of public order and prosperity continued without cessation in Costa Rica during 1907, and relations with foreign powers were friendly. The Peace Conference at Washington was participated in and conventions there signed were subsequently confirmed by the Government. The selection of San José as the seat of the first Central American Court of Justice was a feature of the proceedings of the conference, and June, 1908, chosen as the time for the assembling of the court. The

installation of the Pedagogical Institute, another subject of action by the conference, was also largely intrusted to the Republic.

In connection with his duties as one of the Delegates of Costa Rica to the Central American Peace Congress held in Washington during the closing months of 1907, Señor Don LUIS ANDERSON was also honored by appointment as Envoy Extraordinary and Minister Plenipotentiary of Costa Rica on a special mission to the United States. He was received in this capacity on November 12, and pre-



COLEGIO DE SAN LUIS GONZAGA, CARTAGO, COSTA RICA.

Where the ceremonies on the occasion of the inauguration of the Central American Court of Justice were held.

sented the cordial greetings of President GONZÁLEZ VÍQUEZ and of the Government and people of Costa Rica to President ROOSEVELT.

FOREIGN AFFAIRS.

The interviews between the Presidents of Costa Rica and Nicaragua, postponed from August, 1907, to January, 1908, were productive of results beneficial to both Republics. It was agreed that the export and import duties on cattle of certain grade should be for the present limited to \$1 per head, with the subsequent abolition of all duties at

the end of two and a half years. The work of improving the port of San Juan del Norte for the common benefit of the two Republics was also agreed upon, and it is anticipated that this measure will contribute largely to the development of the adjacent districts. The treaty covering the conventions was submitted to the Congress of the nation.

The Republic, having been fortunate enough to have attracted to it a large foreign population and an amount of foreign capital only exceeded in Mexico and Cuba, enjoys the blessings of not having today claims presented to her for damages or injuries against the citizens of other nations. Consequently, in matters of arbitration the Republic has had but boundary questions. The question of limits with the two neighboring countries was submitted to arbitration. That with Nicaragua was successfully settled by the award of President CLEVELAND in 1888. That with Colombia—now transferred to Panama—submitted to President LOUBET, of France, has not been finally settled. A new arbitration may be necessary for its final settlement.

FINANCE.

The total fiscal receipts in 1907 aggregated \$3,958,235, which was \$190,074 in excess of the budget estimate and \$482,642 greater than the receipts for the preceding year. Expenditures for the year amounted to \$4,595,725.75, as compared with \$4,511,840.33 in the preceding year. With the exception of the \$124,607.74 advanced to certain municipalities, the entire amount was covered by the budget and specially enacted laws.

The internal debt of the country advanced to \$4,876,382.36, as compared with \$4,296,043.38 at the end of March, 1907. Certain reductions in expenditures are urged for the year 1908 in order to meet the necessities of the conditions, and the new budget has been prepared with a view to the strictest economy. Negotiations have been established between the Government and the bondholders of the foreign debt, to meet which the President depends largely on banana export duties.

Total customs receipts for the year amounted to \$2,529,378, exceeding the estimate by \$354,178 and the preceding year by \$355,689. The placing of leaf tobacco on the tariff list, instead of retaining it as a monopoly, is partly accountable for this rapid increase in customs revenues, though it is offset in a measure by the suppression of wharfage dues on coffee exports in accordance with the law of September 11.

COMMERCE.

The total foreign trade of the Republic in 1906 amounted to \$16,080,464, the imports being \$7,278,464 and exports \$8,802,000. Of

the imports, the United States contributed \$3,964,224, or 54.4 per cent; Great Britain, \$1,495,526; Germany, \$770,779; France, \$343,578; Spain, \$183,179; Italy, \$159,578. Of the exports, the United States took \$4,171,560, or 47.4 per cent; Great Britain, \$3,943,697; Germany, \$493,753; France, \$130,061.

United States statistics fix the value of merchandise shipped to the Republic by that country during the year 1907 at \$2,840,281, and of imports therefrom at \$5,281,877.

The export values in 1906 were distributed as follows: Coffee, \$3,356,876; bananas, \$4,436,364; gold in bars, \$297,926; silver in bars, \$239,861; lumber, \$164,933; hides, \$100,336; caoutchouc, \$78,057; cacao, \$70,497; tortoise shells, \$7,975; mother-of-pearl, \$1,013; other articles, \$43,389. There was a decrease of 4,273,281 kilograms in the exports of coffee in 1906 as compared with 1905. The net average price was \$11.21 for each 46 kilograms.

According to official statistics, the coffee exports from September 30, 1907, to March 31, 1908, amounted to 17,486,723 pounds, of which Great Britain alone received 15,066,843 pounds. In 1906 (year ending September 30) the exports of coffee reached 30,237,368 pounds, of which about one-half was shelled and the remainder in husks. The foreign ports of importation of the country's coffee were, according to their importance: London, 76 per cent; Hamburg, 11 per cent; New Orleans and New York, 9 per cent; Bordeaux and Havre, 3 per cent; Trieste, Montreal, Barcelona, Genoa, and Valparaiso. The shipping ports of coffee are Puerto Limon and Puntarenas.

The exports of bananas show constant increase. In 1906, 8,872,729 bunches were exported and over 10,000,000 bunches in 1907, each bunch representing a value of 50 cents. The exports of cacao also increase annually. In 1906 387,734 pounds were exported. The countries taking the crop were: United States, 145,394 pounds; England, 122,245; France, 68,015; Latin America, 49,612; Germany, 6,024; Spain, 3,089.

In 1906 the exports of hides were 630,113 pounds, as compared with 690,100 pounds in 1905. Recently the Government approved the organization of a stock company, with a capital of \$25,000, to engage in the buying and selling of hides both at home and abroad. The company is authorized to tan all kinds of hides and manufacture shoes and saddlery. This company has already installed its machinery and commenced work. In 1906 the exports of deerskins amounted to 52,846 pounds.

Comparing the figures of 1906 with those of 1905, a large increase is noted in the imports. There were imported 28.93 per cent of the cattle slaughtered in the Republic. The imports of rice in 1906 were worth \$109,661. Corn imports were 250,029 pounds, and imports of beans 448,925 pounds, as compared with 800,320 pounds in 1905. The

Government believes that neither corn nor beans should pay import duties. Sugar imports amounted to 80,254 pounds and salt 889,913 pounds. There was a considerable decrease in the imports of lard, which amounted to 269,456 pounds.

INDUSTRIES.

The satisfactory economic status of the country in 1907 is shown in the general development of agricultural interests. The comparative failure of the country's coffee crop in 1907 was partly compensated for by the excellent prices obtained for the product in foreign markets, and by the satisfactory outlook for the present crop, which, according to all indications, will be the largest in the history of Costa Rican production.



TRANSPORTING BANANAS TO THE RAILWAY IN COSTA RICA.

The first shipment of bananas from Costa Rica to the United States, in 1880, consisted of 360 bunches. In 1906 the exports of this product had increased to the enormous amount of 8,872,079 bunches, valued at \$4,436,364.

Agricultural development was the object of fostering care on the part of the Government, and the construction of roads and bridges as a supplementary aid was carried on efficiently.

Banana production continued on the ascending scale. Certain United States enterprises desirous of establishing themselves in the Tortuga district have hitherto been prevented by reason of previously

existing contracts, but these matters have had favorable adjustment, to the benefit of national interests. One of the most important steps recently taken is the approval of the three contracts entered into with the Costa Rican Railway, the United Fruit Company, and the Northern Railway Company. In accordance with recent legislation, an export duty of 1 cent has been placed on each bunch of bananas. Trial shipments of bananas are being made to European ports with encouraging prospects. Cane plantations increased on account of satisfactory arrangements for the local production and sale of alcohol, and the production of cacao was stimulated by the high prices put upon it abroad. The cultivation and treatment of fiber plants will be considered by Congress by virtue of a contract covering the matter.

Coffee is especially cultivated on the Pacific slope in the departments of San Jose, Alajuela, and Cartago. In 1905, 74,625 acres were planted in coffee.

The most promising industry in the Republic at the present time, and whose only rival is the cultivation of bananas, is the raising of cacao. The demand for this valuable product is constantly increasing in the markets of the world, and the Atlantic coast of Costa Rica, especially the great extent of fertile lowlands in Sarapiquí and San Carlos, is particularly suited for the growing of cacao.

For the purpose of promoting the development of agriculture the President has ordered the establishment of agricultural boards in the different cantons, except San Jose. These boards shall be composed of seven members and are placed under the control of the National Society of Agriculture.

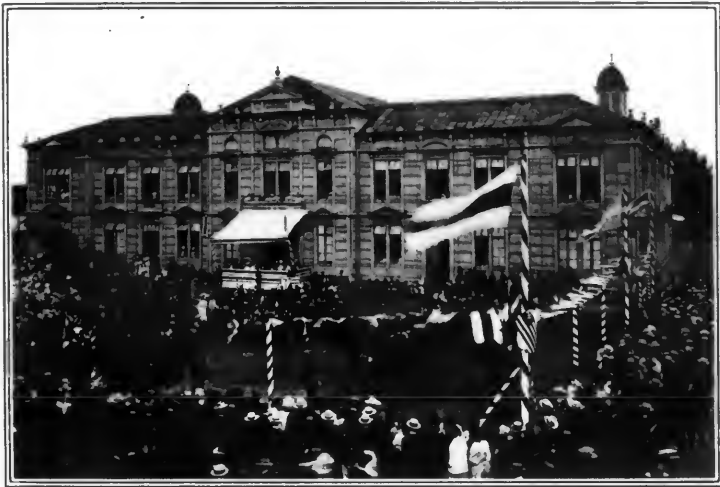
A mining and development company, with an authorized capital of \$100,000, has been established in San José for the purpose of engaging in the mining, smelting, and refining of ores and metals, and the purchase, development, and operation of mining properties in the Republic; and a stock company recently organized with a capital of \$100,000, which may be increased to \$500,000, has for its object the cultivation and manufacture of fibers. During the term of the contract the company must cultivate 500,000 plants. The concessionaires will establish a complete plant for the manufacture of cordage, hats, textiles, sacks, etc., and shall manufacture in the country fibers produced on its plantations and by private persons and shall sell all its products in the country, being permitted to export only the excess production. The Government guarantees to the concessionaires an annual earning of 6 per cent on the capital of \$100,000.

A decree of July 10 provides for free entry into the Republic of various kinds of agricultural machinery and implements. This will surely give an impetus to the interests concerned and is in line with the policy of the Government to develop agriculture throughout the Republic.

COMMUNICATION.

The Republic is closing up the railroad gap on the Pacific side, having adopted the route to Tivivez instead of to Puntarenas. With the early completion of this extension the country will also have a line through San José, the capital, from Port Limon on the Atlantic to Tivivez on the Pacific. The Tivivez extension is in the direct Pan-American location.

Receipts from the Pacific Railway operation during 1907-8 were \$144,048, being \$19,048 in excess of the budget estimate and \$30,041 more than in 1906-7. The benefits from this line will be greater



SCHOOL EXERCISES AT SAN JOSE, COSTA RICA.

This country is celebrated for its excellent schools. The University contains the National Library, which comprises 3,000 volumes of scientific and miscellaneous works.

each year, and the construction of side roads and feeders from the agricultural districts will increase the cargoes to be transported.

An issue of bonds on the part of the Government has been recently made covering \$2,000,000 guaranteed by the internal revenue of liquors. This sum is to be used in railway construction throughout the Republic.

POSTS AND TELEGRAPHS.

Posts and telegraphs netted the Government \$142,295, as compared with \$112,500 estimated in the budget, and in excess of receipts the preceding year by \$23,377. Great improvements were effected in this branch by the creation of new offices and increasing

the length of lines by 169 miles. It is purposed, in this connection, to establish a telephone system if the matter can be satisfactorily arranged.

The population of the Republic on December 31, 1907, was 351,176. The purpose of the Government to increase the population of the country is evidenced by a recent enactment whereby the President is authorized to expend annually, during a period of eight years, the sum of \$20,000 for the encouragement of immigration.

Public instruction and the administration of justice were fostered and a project of reforms to the existing penal code submitted to the Congress.

Through the initiative of the Minister of the Republic in Washington, the inspection of slaughterhouses is to be placed under the care of a veterinary surgeon of the United States, whose services have been specially secured for the purpose. The same personal activity has resulted in the acquisition of several female graduates from a United States university for the Costa Rican schools for instruction in the English language and in school management.

Public health and sanitation received adequate attention, and the water-supply and sewerage systems were extended and improved.



Tested by tangible evidence, the economic situation of the Republic of Cuba was satisfactory during 1907. In 1906 it was generally feared that the revolution had destroyed the financial credit of the island; the long-continued drought was believed to have greatly injured the cane, tobacco, fruit, and vegetable crops; a cyclone devastated the island during the latter part of the year and was believed to have completed the total loss of the cane and tobacco crops. Everyone expected the receipts of the custom-house would diminish, and a general fear prevailed that the revenues of the Government would not be sufficient to meet the obligations and current expenses. The outcome was quite the reverse of public expectation. The island produced more sugar in 1907 than ever before in its history. The tobacco crop was short, but superior in quality, and commanded the highest price in the history of the industry in Cuba. The fruit and vegetable crops were large and showed a gratifying increase in acreage over previous years, and, although the output was reduced by the drought, the prices secured were high and

results gratifying to the producers. The customs receipts were in excess of any preceding year and the condition of the public treasury continued excellent. Taking into consideration that this showing is for a year immediately following a revolution and cyclone, and includes a period of panic and world-wide disturbance of business and finance, of strikes and lockouts throughout the island that paralyzed for months the cigar-making and building industries and otherwise interfered with commerce and industrial pursuits, and with low prices for sugar prevailing, some idea is obtained of the wonderful richness and recuperative powers of the island. The administration of Governor CHARLES E. MANGOON was generally commended. The meetings of Congress were temporarily suspended until the legislative body should have been chosen in accordance with new registration lists as amended by a general census. The census having been satisfactorily taken, an electoral law was promulgated under which the first general elections will be held in August, 1908.

The work accomplished by the Advisory Law Commission is connected with the organization of practically every fundamental branch of the Government. It is as important and far-reaching as was the drafting of the Constitution itself, being indispensable in order to give the Constitution its proper effect, and the American provisional administration, by thus organizing the machinery of government, is not only doing the Cuban people an extraordinary service, but is providing the Government to be inaugurated with an invaluable asset.

FOREIGN AFFAIRS.

Among the international measures inaugurated were the ratification of the Postal Convention of Rome, adherence to The Hague Convention, ratification of the Pecuniary Claims Convention, and adherence to the Geneva Convention, while delegates to the Third International Sanitary Conference, held in Mexico in December, were named.

FINANCE.

The revenues from all sources of the National Government for the fiscal year 1907-8 will aggregate \$25,466,325. The budget for the ordinary expenses of the Government for the same period include items aggregating \$23,309,540, distributed as follows: Chief Executive (Provisional Government), \$105,980; Department of State and Justice, \$680,265.57; Department of the Interior, \$8,973,002.75; Treasury Department, \$3,440,954.65; Department of Public Instruction, \$4,195,868; Department of Public Works, \$4,445,226; Department of Agriculture, Industry, and Commerce, \$274,988; Judiciary Department, \$1,193,255. The fiscal revenues of the Republic collected dur-



MARTÍ PROMENADE (FORMERLY EL PRADO), HAVANA, CUBA.

The leading boulevard of the capital, named in honor of the Cuban patriot, scholar, and statesman, who was killed by the Spaniards in the War of Independence.

ing the calendar year 1907 amounted to \$29,118,827.29, as compared with \$27,418,435.14 in 1906, or an increase of \$1,700,392.15. During the year 1907 the collections of the tax for the amortization of the loan amounted to \$3,692,786.16, which, compared with the sum of \$3,683,742.84 collected in 1906, shows an increase of \$9,043.32.

The customs revenues of the Republic in 1907 amounted to \$26,311,596.85, against \$25,090,084.05 in the preceding year. Customs receipts at the port of Havana aggregated \$20,005,048.12, a gain of \$1,500,000 over 1906.

Various modifications of the customs tariff of the Republic became effective on February 28, 1908, covering mainly machinery and apparatus for the sugar and kindred industries.

The various consulates of the Republic collected during the fiscal year 1906-7 the amount of \$371,392.99 for consular fees.

COMMERCE.

The total foreign trade of the Republic for the year was valued at \$208,529,972, as compared with \$201,933,135 in 1906. The imports amounted to \$104,460,935, against \$98,018,599 in 1906, and exports \$104,069,037, as compared with \$103,914,536.

The imports from the United States reached \$51,309,288, against \$47,602,345 in 1906, and exports thither were valued at \$90,774,645, as compared with \$88,175,451 in 1906.

Imports from other countries were as follows: United Kingdom, \$15,322,981; Spain, \$9,478,615; other America, \$9,277,605; Germany, \$7,592,326; France, \$6,044,705; other Europe, \$3,604,052.

Exports to countries other than the United States had the following valuation: United Kingdom, \$4,506,458; Germany, \$3,218,794; other America, \$2,495,284; France, \$1,361,974; other Europe, \$739,015; Spain, \$484,876.

Of the total imports 49.1 per cent were of United States origin, as compared with 48 per cent in 1906, and of exports 87.2 per cent were sent to the United States, against more than 82 per cent in 1906.

The leading articles exported to the United States were: Sugar, not above No. 16 Dutch standard, \$67,197,688; tobacco and manufactures, \$16,154,830; iron ore, \$2,522,710; bananas, \$1,097,815.

The leading articles imported from the United States were: Wheat flour, \$3,526,549; lard, \$3,051,646; coal, \$2,356,151; lumber, \$2,340,890; corn, \$1,547,526; pipes and fittings, \$1,111,663; cotton cloths, \$1,063,914; passenger and freight cars, \$845,229; pork, \$808,687; furniture, \$737,928; steam engines and parts of, \$710,666; wire, \$622,230; hams, \$636,968; builders' hardware, etc., \$611,350; bacon, \$572,758.

A comparison of Cuban-United States trade shows the advance in the mutual trade relations since the establishment of the reigning

reciprocity agreements between the two countries. United States imports from Cuba for the fiscal year 1907 show an increase of about 50 per cent over those of 1903, while exports to Cuba have advanced 125 per cent during the same period.

PRODUCTION AND INDUSTRIES.

The principal products of the Republic are sugar, tobacco, timber, fruits, vegetables, and iron ore.

The sugar industry is at present in a flourishing condition and easily able to meet all the demands of liquidation. The crop of the year 1908 is estimated at 1,150,000 tons, and in consequence of a reduced production throughout the world it is thought the price will be higher than that now prevailing. The crop in 1907 aggregated 1,427,673 tons, against 1,178,749 tons in 1906, and practically all of it goes to the United States.

The latest statement as to the ownership of Cuban sugar plantations, meaning those which are producing sugar and not cane alone, assigns 36 to Americans, 76 to Europeans, and 74 to Cubans, a net gain of 3 plantations over 1907, the gains showing 5 to Americans and 4 to Cubans, while the Europeans lost 6. The Republic is in a position to be a prominent factor in shaping prices on the European sugar markets, and the conditions in the island more than any other impulse arouse in these markets the disposition to buy.

Tobacco production was 440,000 bales, or nearly double that of the preceding year, with a total value of \$42,343,548. The exports of tobacco and manufactures are valued for 1907 at \$28,645,908.60, as compared with \$36,702,585.75 in the preceding year, while the native consumption is estimated at \$13,697,640.04 and \$12,334,154.72 during the two years, making the total crop value aggregate \$42,343,548.64 in 1907 and \$49,036,740.47 in 1906.

The demand for Havana tobacco in Europe and the United States is so great that the Cuban manufacturers import large quantities of tobacco from other countries, which they manufacture and then sell under the name of Havana tobacco. In order to prevent this fraud and to preserve the reputation of the latter, the Government has levied an import duty of \$7.50 per kilogram on foreign tobacco.

The acquisition by the Bethlehem Steel Company of the United States of an important iron ore deposit located near Santiago has been reported as a feature in the development of the resources of the Republic. The ore beds have been measured up by engineers as embracing 75,000,000 tons, a peculiarity of the newly discovered deposit consisting in the fact that it contains 2 per cent nickel and 1 per cent chromium. The tract covers 875 acres and lies about 12

miles east of Santiago. It is regarded by experts to be the most important discovery of iron ore deposits made within twenty years.

In accordance with the terms of the decree of November 11 a deposit of \$5,000,000 in the banks of the Republic is authorized by the Government, that amount to be devoted to assisting the native industries of the country.

On June 30, 1907, the island contained 2,584,877 head of cattle, 413,937 horses, 50,637 mules, and 2,810 donkeys, and on August 1, 1908, a very important law goes into effect, having for its purpose the development of improved live stock throughout the island. Female sheep and cattle of specified breeds under 6 years of age are admitted free of duty. The live stock of the country has been replenished during recent years by large shipments received from abroad, notably Venezuela and Mexico.

The census of the Republic, taken in 1907, reports the total population as 2,028,282, compared with 1,572,845 in 1899, the Provinces of Havana and Santa Clara being the most populous. Immigration for the fiscal year 1906-7 shows a decrease as compared with the preceding year of 23,080 arrivals, the total for the year being 29,572.

Real estate has an estimated valuation of \$342,758,133, the annual rental of which is given as \$32,469,043.

The year was signalized by a prevalence of satisfactory conditions as a result of the nationalization of the health service of the Republic in accordance with the decree of August 26. An appropriation was made of \$350,000 for the sanitation service in the various municipalities and for precautionary measures against yellow fever. Only 7 cases of yellow fever are reported for the city of Havana and 161 in the rest of the island, and the 1906 record was 71 cases in the capital and 41 in the interior.

The health department gave special attention to the extermination of mosquitoes, to proper regulation of the milk supply, and adequate inspection was made of such establishments as are devoted to the preparation of food products, including ice, mineral waters, confectionery, etc. Chemical analyses of beers and other liquors were enforced, and in all private and public schools medical inspection was made at regular intervals, the number of scholars vaccinated as a precaution against infection numbering 5,520.

Under date of December 31 the Provisional Governor of the Republic issued a decree providing that persons who are engaged in the practice of pharmacy without being graduates or doctors of pharmacy duly authorized to practice, and who have had five or more years' experience therein, shall demonstrate their competence to to practice the profession before a board of examiners, the formation of which is also provided in the decree.



LA FUERZA WATCHTOWER, HAVANA.

This tower, which was built by De Soto in the sixteenth century for the defense of the settlement, was almost completely destroyed by the French buccaniers in 1555. It was rebuilt and enlarged in 1589, and is now used as the depository of the general archives of the Republic.

The plan of making the sanitary service a national matter received the hearty approval of the public, it being fully realized that the thorough sanitation of the island has an important bearing upon its commercial development. The same is true as regards permanent road construction and harbor improvements.

PUBLIC WORKS.

The Provisional Government has entered upon a plan of extensive public improvements, such as road building, water and sewer systems for the towns and cities, harbor improvements, flood prevention, light-houses and other aids to navigation, appropriation of public funds to the amount of \$1,007,750 being made for these purposes. An important work is the paving and sewerage of the city of Havana, the cost of which is to be met by 10 per cent of the customs revenues of that port. Six years will be required to complete the work, and it is calculated that 10 per cent of the receipts during the period will aggregate \$12,000,000.

Many portions of the Republic are as yet unsupplied with transport facilities, and the cost is very great. Orders have been issued to the Department of Public Works to prepare a general plan for a system of macadamized roads, to consist of a highway running east and west through the center of the island, with branch roads running north and south, terminating at the harbors of the six Provinces into which the Republic is divided. The plans were also to include the equipment of the harbors for handling cargoes with ease and rapidity, the erection of light-houses, and the placing of buoys along the coast where needed. Three principal objects were contemplated by these projected improvements—the development of the country, the reduction of economic waste resulting from the difficulties of transportation, and the improvement of the industrial condition by providing employment for a large number of workmen.

On September 13 the governmental decree was signed granting to the United Fruit Company the right to establish and operate a wireless telegraph station at Cape San Antonio, the western extremity of the country. This company has about sixty steamers engaged in the transport of fruit from the West Indies and Central America to the United States, and there are usually forty of their ships in the Caribbean Sea and Gulf of Mexico at a time.



DOMINICAN REPUBLIC

A new Constitution for the Dominican Republic was promulgated by President CACERES during 1907, and the report issued early in 1908 by the Secretary of Promotion and Public Works of the country shows a gratifying development of internal conditions. The same Executive has been reelected as President, and a general condition of prosperity prevails.

The exposition of native products held at the capital in August was participated in by all the Provinces and attended with satisfactory results, while the Dominican exhibit at the Jamestown Exposition was awarded gold, silver, and copper medals. Railroad connection between the coast and interior sections is progressing, and irrigation works are being carried out under the supervision of a United States engineer, while highways and wharfage accommodations are being constructed in response to commercial needs. The public-debt agreement with a New York firm has been favorably acted upon by the Government and publication thereof made in the official gazette of the country.

FOREIGN AFFAIRS.

The treaty between the Republic and the United States was signed in Santo Domingo on February 8 and ratified by the interested Governments in July, the newly appointed Minister from the United States being received in May. On June 15 the Government ratified the convention on literary and artistic copyrights and the international law convention as agreed upon at the Second and Third International Conferences of American States, respectively.

FINANCE.

Increased customs collections enabled a deposit of \$1,543,421.20 to be made with the National City Bank of New York for the purpose of liquidating the national indebtedness; a net balance to this account of \$1,135,974 results for the transactions of the year. The financial condition of the country was, however, affected by the stringency in foreign money markets and a marked scarcity of circulating medium was felt. Importations were consequently limited to urgent demands and the actual needs of the people.

COMMERCE.

For 1907, the total foreign commerce of the Dominican Republic exceeded \$12,500,000, the greatest yet attained by the country. The

export trade was the maximum in its history, being valued at \$7,638,356, compared with \$6,536,378 in the preceding year. Imported merchandise was purchased abroad to the extent of \$4,948,961, or \$883,524 more than in 1906. Hence, the wealth of the Republic was augmented by its increase in sales over purchases abroad by \$2,679,395.

Figures of the total trade for the year aggregated \$12,794,657, against \$10,825,209 in 1906, the leading countries of origin for the imports being: The United States, \$2,863,709, against \$2,503,423 in the preceding year; Germany, \$953,963; Great Britain, \$761,787; France, \$250,408; Spain, \$123,448; Italy, \$103,903, while exports were sent to the following destinations: United States, \$3,329,018, against \$3,749,284 in the preceding year; Germany, \$2,759,624; France, \$1,078,308; Great Britain, \$330,787; Porto Rico, \$32,523; Cuba, \$23,899; Italy, \$11,617, and Spain, \$4,329.



OLD CITADEL, SANTO DOMINGO.

The city of Santo Domingo was founded in 1496 by Bartholomew Columbus and is the original burying place of Christopher Columbus, whose bones were kept in the Cathedral until 1795.

Of the imports, 55.5 per cent were from the United States, as compared with over 48 per cent in 1906, and of exports, 43.6 per cent were destined to that country, as compared with 53 per cent in the previous year.

The most noteworthy features of the Dominican foreign trade for the year were an increase of more than \$1,000,000 in value of exports over 1906 and a gain in imports amounting to \$750,000. The increase in imports over 1905 expanded \$2,000,000, while 1907 exports revealed an increase over that year of approximately \$900,000, notwithstanding the fact that since 1905 the price of raw sugar, heretofore the leading article of export, has suffered a decline of over 37 per cent. The substantial increase in the volume of imports can not be assigned to any special cause but rather to a general commercial awakening in all lines of trade. The total gain in export values was due to the remarkably advanced prices realized for cacao in Euro-

pean markets and to abnormally heavy shipments of leaf tobacco to Germany. Germany's sales to and purchases from the Dominican Republic have progressed rapidly since 1905, both branches of trade having risen 100 per cent. On the other hand, notwithstanding the fact that the United States continues to be the largest buyer of Dominican products, the purchases from that country have perceptibly diminished since 1905, in which year imports of United States origin exceeded those of 1907 by \$1,145,073, the explanation lying in the decline in sugar. Germany now holds second place in Dominican trade, while France stands third or just ahead of Great Britain. France has been consistently a larger purchaser of Dominican products than a supplier of necessities, the opposite being the case as regards Great Britain.

Only the four countries specifically named enter into this trade to any magnitude, but shipments to Spain and Italy were initially made in 1907, giving promise of expanding trade relations.

The cotton trade was the most conspicuous feature among Dominican imports, and in this item is found the greatest increase resulting from generally improved conditions. Cotton goods constitute the principal need of the natives, and the invoiced value of cotton manufactures imported during the year exceeded by one-fourth the combined totals of all other classes of wares brought into the country. More than 90 per cent was of British or American origin, Great Britain taking the lead from the United States.

The consumption of rice has more than doubled since 1905, Germany still supplying about 80 per cent, though nearly all of this is grown in India or Cochin China, transshipment being made at German ports.

Leading exports during 1907 from the Dominican Republic were cacao, sugar, tobacco, bananas, and coffee, in the order named. The most favorable records in foreign sales are under the headings of cacao and tobacco, the former article having taken first place among exports, passing sugar on the export list, while tobacco, though retaining third place in importance, shows an increased export movement of 60 per cent over 1906 and 175 per cent over 1905. Such development is very significant, as the Republic possesses climatic conditions that rival Cuba for this particular culture.

Of the five principal products sugar alone suffered a reduction in price, but the tonnage yield was satisfactory, the export value being \$2,099,679 against \$2,392,466 in the preceding year. This product finds almost its entire market in the United States, that country taking 45,336 tons and Great Britain 8,464 tons.

The cacao exports amounted to 22,384,082 pounds, valued at nearly \$4,000,000, Germany, the United States, and France taking values worth \$1,185,096, \$936,057, and \$865,249, respectively.

Tobacco was exported to the value of \$1,341,233, against \$837,057 in the preceding year, the quantities for the two periods being 21,802,982 and 14,965,709 pounds, respectively. Germany took over 95 per cent of the total, being practically the only purchaser.

Banana growing is practically stationary, the production for the year being 640,000 bunches, as compared with 668,100 in the preceding year, the entire crop being consigned to the United States at an average price of 50 cents a bunch.

Coffee shipments were 3,376,970 pounds, invoiced at \$252,390, France taking more than one-third of the total, or 1,243,206 pounds, having increased her purchases of the product by more than 100 per cent. Two new buyers on the trade list for this item were Italy and Spain.

Over 91 per cent of the export trade of the country is embraced by the five articles noted, but increased sales are also to be mentioned for many minor products, as hides of goats and cattle, honey, dyewoods, lignum-vitæ, etc., in which miscellaneous items a gain of \$40,000 for the year was made.

Vessels of American and German registry continue to bring to the Republic about 86 per cent of all imports, the same nationalities transporting one-third of the products shipped abroad, in about equal proportions.

PRODUCTS.

Agriculture has been made the subject of special recommendations on the part of the Dominican Government, in which the extension of communication facilities and the demarcation of public lands are prominent factors. A cattle-breeding law which went into effect during the year has proven greatly beneficial.

The sugar output, while equal to the average, was supplanted in value by the production of cacao, which latter product, though lacking the best culture, is destined to take rank in the world's growth of the bean. At Cibao, where there is a railroad connection with Santiago and Puerto Plata, many plantations are being established, and though the first crop of the present year was smaller than that of last season, the favorable conditions of the weather justify the most hopeful outlook for the second crop.

Large areas are planted in tobacco, but the long-continued drought of 1907 reduced the production from 300,000 bales, as anticipated, to 220,000 bales, the quality of the product also being affected.

At present vegetable fibers are not gathered in the Republic, though a fibrous plant of the cactus species grows wild and densely in many districts, and is used advantageously in other countries for the manufacture of bagging, etc. On the high plateaus of the central mountain range of the country there are fully 3,000,000 acres of first-class

long-leaf yellow pine that will cut 12,000 to 15,000 feet to the acre. Between the pine forests there is a belt of hardwoods—mahogany, lignum-vite, satin wood, walnut, bayahondo, gri-gri, quebracho, and cedar, covering about 6,000,000 acres. The lowlands where the hardwoods grow are very rich, and after the timber is removed will make productive plantations for the cultivation of sugar cane, cacao, tobacco, coffee, oranges, pineapples, fiber plants, etc.

Veins of auriferous quartz are found all along the central mountain chain. Alluvial gold exists in the upper Jaina River in the Province of Santa Domingo. It is coarse and of a deep yellow color, showing a high degree of purity; an assay of 12 ounces, made at the United States Mint, showed a fineness of 0.946. Alluvial gold is found in numerous places in the north of the island.

Copper is next in importance on account of the quantities in which it is found. Several mines are believed to be profitably worked which yield the very high percentage of from 30 to 33 per cent of pure copper. Iron is found in immense quantities in several sections of the country. Coal deposits abound in the extensive valley lying between the central range, or Gran Cordillera and the Cordillera Setentrional or Monte Cristi chain, those of the Pacificador district being the best known.

The petroleum belt measures over 190 square miles. The oil is found in great abundance in the Province of Azua and the fields are said to extend from a point near the town of Azua for many miles in the interior. At present this deposit is under exploitation by an American company, known as the "West Indian Petroleum Company."

Silver has been obtained in a very pure state in the Tancí mine in the Puerto Plata municipality and deposits of this metal are found in other sections of the country, as well as deposits of platinum, quicksilver, and tin.

The salt deposits in the mountains west of Neyba (Barahona) are supposed to be inexhaustible. The salt obtained is clear and transparent and perfectly pure. There is at Caldera Bay a natural salt pond of considerable extent, where salt is also obtained from sea water by solar evaporation during the dry season.

RAILROADS AND PUBLIC WORKS.

There are at present under process of construction in the Republic four railroad lines which will connect the important centers of production with the coast, greatly contributing to the possibilities of future development. One line soon to be completed runs from Santiago de los Caballeros to Moca, the trains being operated as far as the town of Peña, near the latter city. This road connects with the Dominican Central and furnishes an outlet for the important

cacao regions of Moca and Salcedo. The Government is also constructing a road to connect the port of La Romana with the city of Seybo, having commenced work in January, 1907. This road will give a great impulse to cacao production in the Seybo region, where there are more than 2,000,000 cacao trees in state of production. The other two lines are being built under concession from the Government, one to connect the capital with the city of San Cristobal with a branch line to the copper mines of San Francisco, and the other will unite the port of Barahona with the town of San Juan.

The construction of a highway between Santo Domingo and San Cristobal was prosecuted with vigor during the year and additional sums have been set aside for its completion. Several municipalities carried out, at their own expense, important improvements.

Public works progressed, the dredging of the mouth of the Ozama River at Santo Domingo being prosecuted with activity and in the Province of Monte Cristy bridges were constructed, dredging and canalization processes inaugurated, and irrigation works prosecuted under the supervision of an American engineer engaged by the Government for the purpose. New wharves and warehouses were formally opened and numerous plantations established.



ECUADOR

Ecuadorian conditions during the year 1907, under the continued administration of President ALFARO, show an improvement, so far as the value of native products, such as cacao, rubber, hats, etc., is concerned, while imported articles also increased in value.

In respect to public works the Quito Railroad was the principal undertaking and was gradually extended to Mocha, Ambato, Latacunga, and Chasqui, while the latest information reports its completion in June, 1908.

The contract between the Government and the Guayaquil and Quito Railroad Company stipulated that the line should be finished to Quito by June 14, 1907, and, in consequence of the failure to fulfill the terms of the contract, arbitrators, one of whom was the Minister from the United States, were appointed to settle the various points in dispute between the contracting parties. The work on the line was made the subject of an Executive decree, whereby the payment of the semiannual coupons dated January 2, July 2, 1908, and January

2, 1909, is to be met by a new bond issue, the funds for which are guaranteed by the salt revenues of the Republic.

In commemoration of the rising for independence in South America on August 10, 1809, a national exposition is to be held at Quito on the one hundredth anniversary of that event. The decree providing for the celebration was issued by President ALFARO in October, 1907, and exhibits will cover not only the forestal, pastoral, agricultural, mining, railroad, and fishery resources of the country, but will also provide historical and artistic features of international interest, and prizes have been offered by the Government for articles dealing with patriotic and historical subjects. Arrangements have been made for the participation of other nations in the exposition.

COMMERCE.

The United States reports shipments to Ecuador in 1907 of \$1,884,107 worth of merchandise and receipts therefrom to the value of \$2,835,395.

The total foreign trade of the Republic in 1906 was valued at \$20,196,043, of which \$8,505,800 represented imports and \$11,690,243 exports.

Of the import values for 1906 the United States furnished \$2,238,450, or 26.3 per cent, against 28.86 per cent in the preceding year, while of exports \$3,920,776, or 33.5 per cent, had a United States destination, against 27.32 per cent in 1905. Imports from Great Britain were valued at \$2,780,175; Germany, \$1,547,570; France, \$637,900; Belgium, \$388,125; while exports to France amounted to \$3,412,348; Germany, \$1,897,856; Great Britain, \$693,753; Spain, \$502,265; Chile, \$439,349.

The imports from France in 1906 increased \$78,500, or about 14 per cent, and those from Great Britain \$500,000, or about 22 per cent, while from Germany they show a slight decrease (\$3,400) compared with 1905.

The commercial statistics of the Republic for 1906 show a very flattering increase in the foreign trade of the country over the record of 1905.

The leading articles and their values imported into the Republic were: Textiles, other than silk, \$2,113,018; food products, \$1,272,356; gold and silver coin, \$983,500; machinery, \$639,246; iron and hardware, \$498,753.

The materials for railways and waterworks are largely supplied from the United States, while from Great Britain come nearly all the cotton stuffs, iron bedsteads, galvanized iron, iron bars, tubes, etc., tin plate and tinware, sacks and jute goods, and linen goods and cashmeres.

The principal articles exported from the Republic were cacao, \$6,311,655; ivory nuts, \$1,307,669; straw hats, \$1,200,998; rubber, \$975,155; coffee, \$465,685. The increase in exports is naturally attributed to the larger amount of crops raised, on account of a more favorable season, and a slight advance in the price of "Toquilla straw hats," caused by a scarcity of the straw and an unusually large demand for the hats. Cacao also commanded a better price than in former years.

The cacao shipments, which form the bulk of the Republic's exports, remained practically unchanged at a little less than 21,000 tons in the last reported years, 1905 and 1906, but the increase in value represents a trade increase. The average price, which was \$15 per 50 kilograms f. o. b. at Guayaquil in 1905, advanced in 1906 to \$17, and in 1907 to \$23.50. This has been of great benefit to the agricultural and commercial interests and has greatly increased the value of the country's exports.

Vegetable ivory is the second article in volume and value of all Ecuadorian exports, being rated at 19,036 metric tons in 1905 and 21,796 in 1906. The price of this article has also increased considerably. In 1906 the price advanced to \$4.50 and \$3 for the shelled and unshelled, respectively, and in 1907, the export duties having been very largely increased, the consumers in Europe (who draw about 75 per cent of their supplies from Ecuador and about 25 per cent from Colombia) were forced to buy at much higher prices, averaging at least \$3.50 for unshelled and \$5.75 for shelled nuts. The proportion of export is about 60 per cent of shelled to about 40 per cent of the unshelled nuts.

Straw hats, the third item on the export list, continue to show increased valuations.

PRODUCTION AND INDUSTRIES.

Ecuador produces one-fifth of the world's cacao, ranking next to Brazil. It is the staple product of the country, the total output in 1906 being 50,928,000 pounds for the whole Republic. The production during the first half of 1907 is reported as totaling 23,449,000 pounds.

The cacao plant thrives in the lowlands, especially in the valleys near Guayaquil, which furnish the best crops. It is estimated that there are in the country about 5,000 plantations containing 61,000,000 trees. The trees grow wild in the Republic, and the climatic conditions are especially favorable.

Rubber exploitation is active and even enthusiastic, the production for 1906 being given as 620 tons.

Sugar production is steadily on the increase throughout the Republic, the total for 1906 being 7,000 tons. Consumption has, however,

increased proportionately, and before the crop of 1907 was gathered about 1,200 tons had been imported. By a law passed at the close of 1906 the import duty on sugar was removed, the consequence being that foreign sugar from Peru and Central America can now be imported with only the additional cost of freight and handling. The result has been to depreciate prices to a level with the cost of imported sugars.

Coffee is also grown, the exports from Guayaquil having amounted to 5,777,000 pounds in 1906.



THE CHURCH OF SAN FRANCISCO, QUITO, ECUADOR.

It is one of the largest and oldest convents of the capital. The city is situated near the equator, at an altitude of 9,371 feet, and has recently been connected by rail with the coast.

Other products are tagua (ivory nuts), its annual output being about 20,000 tons, and tobacco, whose annual yield is from 3,000,000 to 4,000,000 pounds. Cotton cultivation has almost ceased, and Peruvian bark exports have fallen to 60 or 70 tons a year. Mangrove bark (for tanning), alligator skins, and kapok are exported in small quantities.

Ecuador is an auriferous country, but its mines have been exploited to a small extent only. At Zaruma, in the Province of Oro, there are quartz crushings worked by an American company which in 1906 produced gold to the value of \$97,500 and cyanide slimes (containing

gold, silver, copper, zinc, and iron) valued at \$147,500. At Pillzhun, in Cañan, rich silver ore is found, but it is not worked. In the Esmeraldas washings platinum is found in variable quantities. Pitch is found, but it is not worked. The country is known to be also rich in copper, iron, lead, and coal; sulphur exists in great quantities in the Pichincha district and in the Galapagos Islands.

Although the Republic has but few manufacturing industries, cheap labor and abundant water power afford ample opportunity for their establishment. The best-known native industry is of course the manufacture of the so-called Panama hats. Jipijapa being the center of production, averaging annually \$1,500,000, and ranging in value from \$1 to \$200 each. Months are sometimes spent in the preparation of one of these high-grade hats, which on completion are as pliable as silk or cotton fabrics. To protect the industry a duty is charged on the straw exported.

Among the industries which might be exploited with profit are the manufacture of ivory buttons from the native vegetable ivory, now forming a staple of export; cement factories, china and glass works, canning and preserving establishments, shoe and leather factories, all of which would find raw material close at hand.

The business of the Guayaquil brewery continued unaltered, but the reduction of import dues on foreign beer caused increased competition with the German and American product.

The cotton factories of the interior have been somewhat handicapped by the scarcity of raw material, and it is proposed to import cotton from Peru, though the import duty is about 5 cents per pound. Owing to the scarcity of flour, a law was passed in December, 1906, providing for the free entry of wheat, and also other grains, peas, beans, etc.

Salt, whose production is a Government monopoly, was shipped profitably during 1906-7 to Tumaco and Buenaventura, in Colombia. This line of exports is, however, limited as yet.

RAILROADS.

In connection with a new railroad contract authorized by the Government of Ecuador, it is gratifying to record the information to the effect that by June, 1908, the Guayaquil and Quito line had reached the capital.

Aside from the wonderful Guayaquil and Quito Railway, which places the two cities within fifteen hours of each other, an important line is under consideration from Ambato to the headwaters of the Amazon near the Brazilian boundary. This will tap the enormous rubber-producing district, which now sends its product to Europe and the United States by way of Brazil. Concessions have

also been granted for the construction of a road from a Pacific port, other than Guayaquil, to center at the capital, while another is to run from Huigra to Cuenca, in the southern plateau of Ecuador, a distance of about 90 miles.

While the connection of the capital and the interior with the coast was the prime object of the Guayaquil and Quito enterprise, a long section of the line is in the direct Pan-American location. From Huigra to Quito, a little more than 200 miles, the general Pan-American route is followed. The completion of this Guayaquil and Quito Railroad makes it feasible to enter upon the construction of feeders, and these will be necessary links in the Pan-American system. In order to secure the traffic of southern Ecuador it will be necessary to build a line from some point between Huigra and Guamote to the city of Cuenca, a distance of 92 miles, and this will be along the Pan-American route. Surveys have been made for this purpose, and the measures of President ALEXARO, to whose vigorous policy the completion of the line from the coast to the capital is due, will now be directed to providing means for the Cuenca prolongation. After the southern section is finished the effort will be made to prolong the line from Quito to Ibarra, 97 miles to the north, along the intercontinental location.

SHIPPING.

During the year 1906, 184 steamers, 11 sailing vessels, and 1 cruiser, with a registered tonnage of 354,354, entered the port of Guayaquil. Of the steamers 96 were English, 33 German, 52 Chilean, and 3 French. The cruiser was also French. No American vessels entered the port.

PUBLIC WORKS.

Ecuadorian development is being furthered through the granting of concessions to colonizing companies endowed with special privileges by the Government. One recently contracted provides for the settlement of 5,000 white families, Dutch or German preferred, within ten years on public lands covering 500,000 hectares. The concession carries with it the obligation to erect churches, schools, shops, and dwellings, to construct a permanent railroad, and to deposit a guaranty fund with the Government for the fulfillment of the contract.

In Guayaquil, the new market place has been completed and the state of public health very much improved by the application of the Dixon system to the destruction of city refuse. Other building operations are reported and an increase in population to between 80,000 and 90,000 inhabitants.

Electric lighting has been applied to the principal thoroughfares, the wharves and docks, and the new suburbs of the capital. It is

proposed to generate electric power through the agency of the mountain streams or those at the foot of the Cordilleras, about 55 to 58 miles distant, and the work on the electric tramway line is being pushed with vigor.

Measures are being actively taken by the Government of Ecuador for the enforcement of such sanitary regulations as may provide against the spread of contagious diseases throughout the Republic, and a special sanitary commission has been created for the work in Guayaquil under the direction of an officer of the Public Health and Marine-Hospital Service of the United States. A modern water and sewerage system is to be installed, for which bids are to be invited in the United States and Europe, and in Quito and Riobamba contracts have been made for new waterworks systems, the latter having been let to a United States engineer.

On an aggregate capital of nearly \$5,000,000 the six banks in the city of Guayaquil declared dividends for 1906 averaging a little less than 14 per cent. It is reported that the German Bank of Berlin, which has already established branches in Peru and Chile, is about to establish a similar institution in Guayaquil.



GUATEMALA

The present prosperity of Guatemala is emphasized in the message delivered to the National Congress by President ESTRADA CABRERA in March, 1908. Reference is made to the peace and progress that prevailed in the country during the preceding year and the increasing tranquility based upon the observance of law and the stimulus of work.

FOREIGN AFFAIRS.

The international relations of the country are carefully cultivated, and an event of the greatest importance in the life of the nation was the holding of the Central American Peace Conference at Washington during December, 1907. The inauguration of the Trans-Continental Railway, completed in December, 1907, and opened early in the next year for traffic, was made the occasion of a general gathering of American representatives, all the members of the Diplomatic Corps being present, while the Governments of the United States, Mexico, Panama, and the neighboring Republics of Central America sent special envoys.

Among the congresses and conventions in which Guatemala was represented during the year were the Second International Peace Conference of The Hague, the Third International Sanitary Conference of Mexico, the Congress of Hygiene and Demography of Berlin, the Red Cross Conference of London, the Zoological Congress of Boston, the Dermathological Congress of New York, the Fifteenth Irrigation Convention of Sacramento, the Conference on Electrical Units and Standards in England, and the Sixteenth Annual Meeting of the Association of Military Surgeons held at the Jamestown Exposition. Delegates were also appointed to represent the Republic in the International Commission of Jurists, while the Pan-American Medical Congress, to be held in the city of Guatemala during the summer of 1908, is to be a notable gathering in the forwarding of general health conditions.

FINANCE.

During 1907 the public revenues of the country yielded a total of \$17,648,911, an increase of \$5,148,500 over the budget estimate, while expenditures were \$10,930,000 in addition to \$11,350,000 applied to the service of the public debt, making a total for disbursements of \$22,280,000.

The customs-house receipts, which had been estimated at \$6,000,000, amounted to \$10,000,000, those showing a gain of \$4,000,000 over the budget estimate, this advance being due to the rise in exchange and to adequate administration of the customs service.

The Government monopolies yielded \$2,200,000, or \$200,000 more than the estimate; other taxes, however, which had been estimated at \$880,000, yielded only \$800,000.

At the opening of the year the public debt amounted to \$12,360,032, or \$6.18 per capita in a population of 2,000,000.

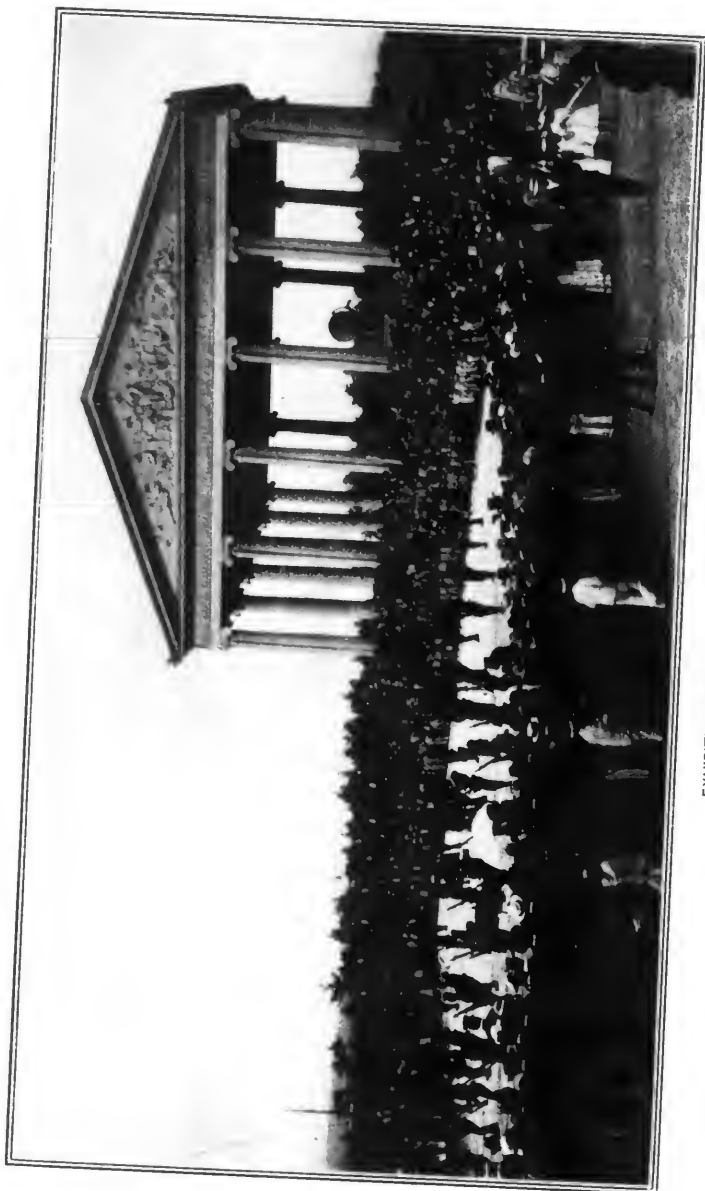
COMMERCE.

The total foreign trade of the country in 1907 was valued at \$17,491,060, composed of imports \$7,316,574 and exports \$10,174,486, as compared with a total of \$14,357,030 in the preceding year, when imports figured for \$7,220,759 and exports for \$7,136,271.

In the latest year the United States furnished \$4,243,795, or 58.1 per cent, of Guatemalan imports as compared with 42.1 per cent in 1906, while of total exports that country took \$2,310,593, or 21.6 per cent, against 30.2 per cent in the previous year.

The leading articles shipped abroad were: Coffee, \$9,019,948; hides, \$292,927; lumber, \$236,464; rubber, \$196,079; bananas, \$179,904, and sugar, \$142,152.

Of the imports, cotton goods comprise about 28.28 per cent; food-stuffs, wines, and tobaccos, 17 per cent; and machinery and metal



EXHIBITION DRILL OF CADETS, GUATEMALA CITY.
In the background is the Temple of Minerva, erected by President Estrada Cabrera in 1906, where the annual school feasts are celebrated.

goods, 16 per cent, while linen, silk, chemicals, glass, paper, etc., comprise the remainder. These imports are divided principally between the United States, Germany, and England, the share of the three countries in 1906 being \$3,037,796, \$1,533,809, and \$1,661,895, respectively. The preponderance of the United States in the import trade of the country is remarkable when it is considered that Germany's purchases from Guatemala are almost double those of that country. The principal articles furnished by the United States are: Wire fencing, electrical apparatus, rice, household utensils, glass-ware, dried codfish, smoked meats, and other foodstuffs, agricultural implements, machinery, etc.

The leading export item is coffee of which from 70,000,000 to 80,000,000 pounds are shipped annually, Germany taking more than half, the United States more than one-fourth and Great Britain about one-eighth. Other important articles, though far behind coffee, are rubber, cabinet woods, hides, and bananas. Germany takes three-fourths of the rubber and a greater proportion of the hides, the United States figuring for one-eighth as a rubber buyer, but taking more than half the woods shipped abroad, and all the bananas. Sugar is sent to Canada, about 50 per cent; to the United States, 38 per cent, and to Japan, 12 per cent. In 1906 Germany took total exports worth \$3,819,767; the United States, \$2,159,880; Great Britain, \$864,991; Mexico, \$64,696, and South America, in general, \$65,351.

PRODUCTION.

The Government is giving special attention to the development of the agricultural resources of the country, a noteworthy indication of which is to be found in the decreased imports of breadstuffs—maize alone figuring for but little more than \$10,000 in 1906, as compared with nearly \$400,000 in the preceding year. In 1907 it is estimated that a saving to the country of \$82,000 was effected through decreased importations of rice, maize, potatoes, and wheat. Cotton, henequen, ramie, cacao, manila hemp, rubber, and other plants constitute promising cultures. In certain of the coast districts two or three crops are obtained annually of the local products.

Coffee is the most important product, the largest plantations being in the hands of the Germans, and the principal producing sections lie on the Pacific coast. Rubber planting is being carried on with satisfactory results, attention being given to the preservation of the trees and the increase of the supply through the acquisition of the forests by private owners, exports in 1906 figuring for 376,300 pounds, and 200,000 acres being acquired by foreign capitalists. About 1,680 acres are devoted to tobacco culture. The Guatemalan cacao is of superior quality, and, though 50 per cent more expensive than the

imported varieties, is consumed everywhere throughout the Republic. Sugar cultivation is an important industry, the area devoted to it covering more than 37,000 acres in 1906, while exports amounted to 1,571,900 pounds. Bananas grow in profusion and are of very fine quality, 516,719 bunches being shipped abroad in 1906. Wheat, maize, sweet potatoes, and beans are also grown, and the cotton acreage is increasing.

Over 2,116,000 square feet of timber was exported in 1906, and the extent of forest land gives promise for greater exploitation.

On the high plateaus the area of cattle grounds is about 758,640 acres, and hides shipped in 1906 were 2,885,960 pounds of cattle and 145,420 pounds of deer and sheep skins.

The mineral resources of the country are to be developed through the newly established bureau of mines, industries, and commerce, and a new mining code is to be enacted for the promotion of this important source of national wealth. There are in the Republic rich mines of gold, silver, copper, iron, lead, zinc, antimony, coal, marble, sulphur, and mica, but few have been developed save in a very primitive manner. Placer gold mines at Las Quebradas are worked successfully, while silver is commercially mined in the Departments of Santa Rosa and Chiquimula, and salt in the Departments of Alta Veracruz and Santa Rosa. The lack of good means of transportation has hitherto prevented the adequate exploitation of this industry, though the laws of the country are very favorable to the acquisition of mining rights by foreign capital.

INDUSTRIES.

Manufactures have attained a noteworthy degree of excellence in some directions, certain woolen and cotton textiles of native make being equal in quality to the imported varieties, while in footwear and furniture, hats, saddles, rush weaves, earthenware, candles, soap, cigars, cheese, butter, beer, mineral waters, ice, and brandy a remarkable proficiency is to be noted. Native workmen display much aptitude in learning new crafts, and raw materials are varied and excellent.

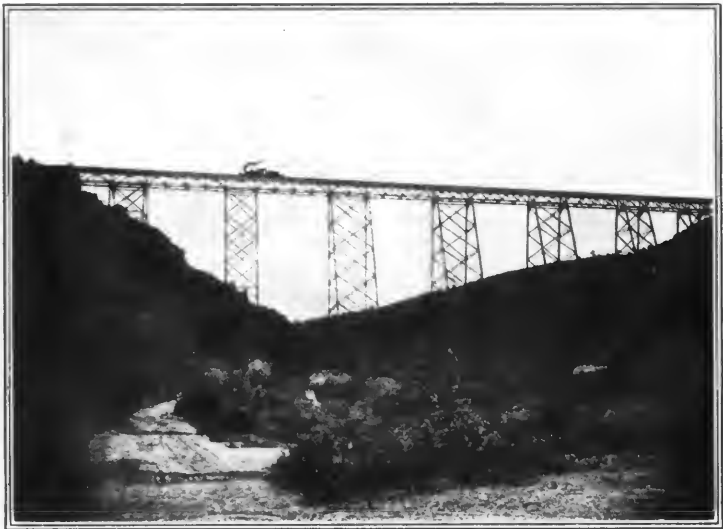
Among the industries may be mentioned the cotton factory of Cautel, near Quezaltenango, employing 250 hands and consuming from 1,760,000 to 2,200,000 pounds of cotton yearly; the Central American brewery, making beer from Chilean barley and Bavarian hops, other breweries and mineral factories, sugar mills, and tanneries.

RAILROADS.

In the opening of the Trans-Continental Railway of Guatemala in January, 1908, the Continent is provided with a third ocean-to-ocean

route, and there is no doubt of the immense influence its operation will have upon the national development. The road links Puerto Barrios on the Caribbean Sea with San José on the Pacific Ocean and runs for 270 miles through a vast area of rich and fertile lands. Other railways in present exploitation are the Central, the Western, Ocos, Verapaz, and Guatemala lines.

On the lower 60 miles of the Northern, or Trans-Continental route, some 8,000 acres are planted in bananas, and the traffic built up by this culture and the transportation of hardwoods will be a valuable source of revenue to the road. The road also serves the coffee districts of the west coast, and with the completion of the branch from Zacapa to



TRESTLE ON THE TRANSCONTINENTAL RAILWAY OF GUATEMALA.

This line, 269 miles in length, connects the Pacific and Atlantic coasts, traversing a rich and beautiful country. It was completed in January, 1908.

Santa Ana it is the expectation of the owners that a large part of the entire coffee crop will be forwarded to Puerto Barrios over its line. The seaport of the Western line is Champerico, and these two roads connect at Mazatenango, constituting a link in the ultimate Pan-American road. The railway connecting with the trunk lines in Mexico is almost completed to the Guatemalan frontier, which is separated from the Western route by a distance of about 35 miles.

By the opening of the Trans-Continental Line the port of New Orleans will be in close touch with the commerce of the west coast of Nicaragua and Salvador, effecting a saving of eight days in trans-

port. The trade route hitherto in use for the transport of merchandise from Europe or the eastern part of the United States to the city of Guatemala has been by way of Colon and the Isthmus for the better class of goods and by the long sea route through the Straits for cheaper articles. For many years the coffee crop of Guatemala has been handled by the Guatemala Central, being transferred at the Pacific coast to vessels transporting either to San Francisco or to Panama for transit across the Isthmus en route to England and Germany. A new fortnightly service between New York and Puerto Barrios has been inaugurated by the United Fruit Company in consequence of the opening of the road, and wireless connection has been established with Port Limon, the center of distribution for Central American stations.

The bulk of the carrying trade on the Pacific is performed by the steamers of the Pacific Mail Company, the principal ports being San José and Champerico. On the Atlantic side are two excellent, well-sheltered harbors, Puerto Barrios and Livingston, which until recently were cut off from adequate communication with the interior.

POSTS AND TELEGRAPHS.

In the post and telegraph service of the Republic for 1907 there was the general increase of \$26,881, the advance in the receipts from the former having offset the \$23,473 decrease reported for the latter. The estimate for the telegraph receipts was \$400,000, whereas they aggregated only \$376,526, while the postal estimate was fixed at \$120,000 and \$170,354 were received. Telegraph and telephone services were greatly improved, new lines being built, old ones repaired, and new stations established, while the postal service was rendered as efficient as possible. Revenues from parcels post amount for the year to \$67,000, an increase over the preceding year of nearly \$30,000.

INSTRUCTION AND PUBLIC WORKS.

Public instruction received especial attention, and on March 8 a committee was appointed to draft amendments to the school law with the purpose of extending to all the towns of the Republic the system of practical instruction that has been tried with satisfactory results in the capital. For primary education 1,262 schools are in the country, attended by 44,240 pupils. In November buildings to be used as practical schools for men were opened throughout almost the entire Republic, and within a short time similar opportunities will be afforded the women and girls, as school materials for the purpose have been ordered abroad at a cost of \$50,000.

The establishment of an experimental farm was ordered by a resolution of February 21, and it is intended to establish agricultural stations throughout the country.

Public works received an extraordinary impulse during 1907. The construction of several roads was completed and many others are in process of building, while in the national capital several public buildings were erected and water systems installed in various cities.

A chamber of commerce on a level with similar institutions in other countries is under contemplation and sanitary measures are being carried into effect under the direction of a United States official.

The fish cultures established in Lake Amatitlan by decree of August 23, 1907, are reported as giving satisfactory results.



The Haitian Congress adjourning in August, 1907, reports that among measures for the promotion of international amity under the administration of Gen. NORD ALEXIS, conventions were signed between the Haitian Government and Great Britain, between the State and the cable company for a reduction of their indemnities and rates, and a treaty between the French Republic and Haiti.

Other bills passed related to the following measures: Coinage of nickel money; modification of the civil code, code of civil procedure, criminal instruction and commerce; opening of the port of Mole St. Nicholas to foreign commerce; regulations relating to the exposition of Haitian products by consuls and consular agents; customs tariff, maximum and minimum; establishment of an insane asylum and a leprosy hospital; creation of a commission to verify the floating debt; decrease of the interest on the internal debt to one-half; recognition as public debt the aid given to the victims of the disaster of 1902; regulation of higher instruction; schools of medicine, law, pharmacy, and applied sciences, and numerous other laws affecting the internal administration of the country.

FINANCE.

The revenue of Haiti is derived almost exclusively from customs, paid in American gold on exports and in currency *gourdes* on imports. The largest portion of expenditures is for debt charges. The customs revenue in 1906 was as follows: Export duties, \$2,730,761 United States currency, and import duties 5,135,250 *gourdes*. The expendi-

tures for 1906-7 were estimated at 6,186,121 *gourdes* and \$3,937,899 United States currency.

At the opening of the year 1907 the public debt was: Gold debt, \$26,134,437; paper, 12,429,739 *gourdes* (\$2,425,905).

The shortage in the coffee crop for the past three seasons has been productive of a stringent financial situation, as the budget expense account is based on a 60,000,000-pound crop, and these figures have not been attained in recent years.

Up to January 1, 1907, the Government had redeemed \$3,177,500 of the paper currency in circulation, leaving an outstanding balance of \$7,825,248 in paper and \$2,600,000 in nickel pieces and \$225,000 in copper. This reduction in paper currency had a beneficial effect on exchange rates.

A recent Haitian law repeals the law of March 4, 1904, prohibiting the exportation of Haitian silver coin, and that of August 23, 1906, which permitted said coin to be paid into the custom-house for a certain per cent of export duties at the rate of 50 cents gold on the dollar silver. During the last three or four years large quantities of the Haitian silver coin have been exported and sold as bullion, being worth many times more as such than as currency. The law, therefore, affects only the small quantity of coins which remain. These are chiefly in the Government's hand, and will now be shipped for sale as bullion.

Owing to the high prices obtained for cotton and cotton seed in foreign markets, where it is used for making cotton-seed oil, a "statistical" duty of \$0.20 gold per 100 pounds is to be levied on these products by the Haitian Government from October 1, 1907.

The present law abrogates all contrary laws or by-laws.

COMMERCE.

Haitian imports from the United States in 1907 were valued at \$3,145,853, against \$3,266,425 in 1906, and exports to the latter country are reported as \$1,220,420 and \$1,036,330 in the two years respectively. The exports comprise logwood, coffee, and cocoa; the imports consisted of provisions, cotton goods, and breadstuffs.

Haiti's trade year extends from September to September, and the latest compiled statistics from native sources show results up to September 30, 1906, a satisfactory condition being noted in all established commercial interests and a development of new industrial enterprises under Government authorization.

The chief exports to the United Kingdom in 1906 were logwood, valued at \$160,135, and mahogany and other woods, \$34,330. The principal articles imported from Great Britain were cotton manufactures, valued at \$1,230,575; linens, \$47,665, and iron, wrought and unwrought, \$89,975.



A VIEW OF PORT AU PRINCE, HAITI.

The capital and principal seaport of the Republic, situated on the large and beautiful Bay of Gonaïves. It was founded in 1749, and now has a population of about 75,000 inhabitants.

The leading articles of export from the Republic were: Coffee, 50,853,554 pounds, an advance of 12,000,000 pounds over the preceding year; cacao, 4,582,403 pounds being practically the same as reported for 1905; cotton, 3,865,216 pounds, an increase of about 200,000 pounds; cotton seed, 6,208,289 pounds, showing the remarkable gain of 6,150,000 pounds; hemp, 398,679 pounds, a gain of 70,000 pounds; hides and skins, 659,886 pounds, a decline of 500,000 pounds; orange peel, 494,492 pounds, practically the same as in 1905; peanuts, 30,000 pounds, a gain of 8,000 pounds; wax, 149,095 pounds, a loss of 50,000 pounds, and woods of various kinds, 122,598,000 pounds, as compared with 113,422,435 pounds in the preceding year.

The woods shipped comprise cedar, 613,000 pounds; fustic, 1,097,000 pounds; logwood, 119,000,000 pounds; mahogany, 1,700,000 pounds, and white wood, 188,000 pounds.

Almost the entire coffee crop is shipped to Europe, but American consumption of the article is on the increase, the same being true of Haitian cotton and cacao. There was a slight increase in the production of the latter article, and some attention has been given to rubber planting. Sugar production is increasing, and the home market is well supplied by native producers, though none of the manufactured product is exported. All machinery for the mills is bought in the United States, and owing to the increased manufacture importation of the refined article has fallen off.

The imports of dry goods from the United States continue to occupy first place, though during 1906 considerable purchases were made in Great Britain, but they were of inferior quality. Provisions and household articles are mainly of United States origin, but owing to a depressed financial condition purchases abroad have somewhat diminished in value.

INDUSTRIES.

The industries of Haiti are mainly agricultural, and the most important product is coffee of excellent quality, but the export duty is so considerable as to prevent the development of its cultivation. Cacao is grown extensively, and cotton is exported in increasing quantities. The culture of *pite* (an American agave) has been successfully begun. The cultivation of tobacco is extending, and a cigar and cigarette factory is successful. Sugar is grown, and there are four sugar-making establishments, but no refineries. Rum and other spirits are distilled, but not exported. Logwood is an important product, and other valuable woods are now exported. Three-fourths of the meat consumed in the country come from the Dominican Republic. Soap, candles, and matches are made. The production of sisal hemp in Haiti is on the decline. For 1905, 1,209,428 pounds were shipped, while in 1906 the quantity had decreased to 669,886 pounds. The bulk of the product goes to the United States.



GOVERNMENT BUILDING, PORT AU PRINCE, HAITI.

In which are located the offices of the Departments of Foreign Relations, Public Instruction, Interior, Agriculture, Public Works, Justice, Finance, Commerce, and War and Navy.

Haiti possesses considerable mining resources quite undeveloped. Gold, silver, copper, iron, antimony, tin, sulphur, coal, kaolin, nickel, gypsum, limestone, and porphyry are found, but are little worked. Some effort has been made to work copper mines in the last years, and concessions have been granted for mining coal, iron, and copper.

The deposits of manganese ore are very rich and can be found in sufficient quantities to make the working of the mines profitable.

One of the most important gold placer districts is situated in the southern part of the island, near the town of Jaemel, in the region lying between the coast and the mountains of Morne de la Selle, which reach a height of over 9,000 feet. Plans are being perfected for the thorough exploitation of the deposits under titles granted in perpetuation by the Haitian Government.

PUBLIC WORKS.

Among the concessions granted during the year were included the establishment of electric plants for lighting Port au Prince and Cape Haitien; also grants for the operation of gold, copper, iron, and coal deposits. The company holding the concession for working the copper mine at Terre Neuve has developed the principal veins with encouraging results, but the copper mine at Maissade and the coal deposit at Hinche have been hampered by the lack of transportation facilities for the necessary machinery.

Concessions were also granted for the exploitation of the forest of the public domain, while there were established in the Republic a logwood distillery, paper factory, petroleum refinery, candle factory, and ice plant. Light-houses were erected along the coasts, wharves constructed at Port au Prince, Cape Haitien, and St. Marc, and the cities of Port au Prince, Cape Haitien, Cayes, Jeremie, Gonaives, Port de Paix, and St. Marc were provided with electric lighting.

COMMUNICATION.

Among the more important Government measures and which bear directly upon the development of the country are to be mentioned the numerous railroad concessions which have been granted to connect Gonaives with Hinche, Cape Haitien with Port au Prince, Gauthier with Fonds Parisien, Port au Prince with Leogane, Leogane with Cayes, Cape Haitien with Onaneminthe, and Cayes with Camp Perin.

There is a railway from Cape Haitien to Grand Riviere (15 miles), whence a line will be constructed to Port au Prince. A light railway has been constructed from Port au Prince to Lake Assnel (28 miles), this railway being intended ultimately to connect the capitals of Haiti and of the Dominican Republic. A concession has



PRIMARY SCHOOL OF THE BROTHERS OF THE CHRISTIAN SCHOOLS, PORT AU PRINCE, HAITI.

Education is compulsory in Haiti and free of cost from the primary to the highest schools. Indigent children are assisted by the Government in obtaining an education.

been granted from Gonaives to Hinche, and thence to Port au Prince: it is in operation from Gonaives to Passerelle. A line from Cayes to Perin (17½ miles) has been contracted for. Port au Prince has 5 miles of street railway.

At Port au Prince in 1906 there entered and cleared 206 vessels of 312,408 tons, and at Cayes 264 vessels of 312,294 tons. Several lines of steamers (German, French, and Dutch) connect the ports of Haiti with New York, Hamburg and other European ports. The Hamburg-America Line has the largest share in the shipping.

The principal towns are connected by the Government telegraph system. A cable runs from Mole St. Nicholas to Santiago de Cuba, and from the Mole to Port au Prince and Cape Haitien, whence it runs to Puerto Plata in the Dominican Republic and to South America.

There are thirty-one post-offices in the Republic.

To further the commercial, agricultural, industrial, and maritime interests of the Haitian Republic, a chamber of commerce has been established at Port au Prince, in accordance with a Presidential decree of November 30, 1907. An appropriation of \$1,800 to meet the expenses of organization has been made and the President of the Republic named as honorary president. Not only will the organization disseminate information concerning native products and industries, but it will also serve as an intermediary for the local distribution of foreign data of value to the country.



HONDURAS

General conditions throughout the Republic of Honduras have greatly improved since the execution of the Central American peace treaties at Washington, followed by the election of Gen. MIGUEL R. DÁVILA, in January, 1908, as President for the ensuing four years.

Political disturbances in the early months of 1907 materially affected the economic conditions of the Republic, but in spite of the interruptions to maize planting crops were sufficient for local needs and the price of this staple remained at a normal figure. Rubber production increased and sugar was produced in larger quantities than formerly though not sufficient for home consumption, dependence upon Nicaragua and Salvador being still a feature of the foreign trade. In the list of exports turpentine figures for the first time in recent years, and but for difficulties in transport might become an

article of considerable commercial importance. Many of the pine forests whence it is obtained are far from the coast, rendering shipment very inconvenient.

Among the important matters considered by the National Congress during 1907 were the settlement of the foreign debt of the country and the extension of the Interoceanic Railroad from its present terminus at La Pimienta, 56 miles from Puerto Cortes, to the Pacific Ocean, a distance of 230 miles.

FINANCE.

The face of the foreign debt, principal and interest, represented by four series of bonds issued in 1867, 1869, and 1870 for the construction of this road, now exceeds \$106,000,000. It is believed that this matter is on the point of a satisfactory conclusion, as the Valentine Syndicate, composed of capitalists and prominent railroad men of New York, has submitted a proposition which involves the handling of the whole bond issue and a completion of the road to the Pacific terminal within two years.

The financial depression of the rest of the world had its effect on the Republic. This, combined with a scarcity of drafts and reduced shipments of bananas and mineral products, placed the merchants of the country in difficulties unknown for many years. The principal mining enterprise of the country turned out less silver than in former years, not for lack of good ore but by reason of an installation of a new system of treatment and appliances.

The expenditures of the Government during 1906-7 amounted to \$2,011,674 and the revenues to \$1,414,193, a deficit of \$597,481 being therefore recorded. The revenues were estimated in the budget at \$1,521,750.

COMMERCE.

The total foreign trade of the country in 1907 amounted to \$4,343,926, against \$5,389,353 in 1906, imports being valued at \$2,331,517, as compared with \$2,511,610 in 1906, and the exports at \$2,012,409 and \$2,877,743, respectively, for the two periods.

The United States furnished merchandise to the value of \$1,561,855, against \$1,583,871 in 1906, and the exports taken by the United States were worth \$1,807,952, as compared with \$2,511,591 in 1906.

Of the total imports in 1907, 67.7 per cent were of United States origin, as compared with 63.6 per cent in the preceding year, and of exports 89.8 per cent were destined to the United States, as compared with 87.2 per cent in 1906.

The imports from Great Britain in 1907 were valued at \$269,556; Germany, \$209,089; France, \$110,425; British Honduras, \$63,404; Salvador, \$36,173, while the exports to Guatemala amounted to



MEDICAL SCHOOL, TEGUCIGALPA, HONDURAS.

The large hospital connected with the school is supported in part by a percentage of the customs duties.

\$64,912; Cuba, \$55,861; Germany, \$50,756; British Honduras, \$11,952; Salvador, \$10,758; Great Britain, \$9,611.

The United States is the leading factor in both branches of the country's trade.

Bananas form the chief export item, the number of bunches sent abroad being 4,266,567, valued at \$930,916.36. Mineral ores, with a valuation of \$444,332.61, rank next, followed by live animals, \$136,016.31; bar silver, \$132,168.24; hides, \$66,313.89; cocoanuts, \$62,760.25; dye and cabinet woods, \$41,268.14, and rubber, \$38,745.25.

To meet the demand for better wharfage accommodations and facilities for shipping bananas at the northern ports of the Republic, the Government has increased the export duty on each bunch of bananas from 2 to 3 *centavos*, part of the proceeds thereof to be applied to such improvements as may be deemed expedient.

The quantity of rubber exported from Puerto Cortes during the twelve months ending June 30, 1907, was 44,280 pounds as compared with 46,346 pounds in the preceding year. Many of the wild trees are being ruined by continued tapping, and scarcely any rubber is cultivated although there is an abundance of suitable land available.

INDUSTRIES.

The cultivation of coffee is less developed in this country than in any of the other Central American Republics, due not to any difference in the soil, climate, and general conditions of Honduras in comparison with its sister Republics, but to the lack of means of communication with the interior, and especially to the preference given to the cultivation of bananas. The yearly crop is about 8,800,000 pounds, of which about 5,500,000 are exported. The shipping ports are Puerto Cortes, on the Atlantic, for coffee destined to the United States and England; Amapala, on the Pacific, for Hamburg, Liverpool, Havre, and Bordeaux, and the land frontiers of Honduras for Salvador.

It is a well-known fact that the Republic is famous for its valuable woods.

Cattle raising is one of the principal sources of wealth in the country. More than 600,000 head, the average value of each being \$6, make up the general total. The annual exports of cattle amount to 30,000 head—shipped to Cuba, British Honduras, Central America, and the United States.

There are about 45,000 horses in the Republic, the exportation of which is significant. Of mules there are about 15,000 head. The raising of swine is widely exploited throughout the Republic, and there are about 120,000 hogs, the major part of which is located in Choluteca. The number of sheep amounts to 15,000.

MINING.

Gold is found in abundance throughout almost the entire territory of the Republic, especially in veins or lodes in the central mountainous group of the Departments of Olancho and Tegucigalpa, and is also obtained in nuggets and dust in the eastern part. Rich placer mines have been found in the Guayape, Jalan, and Manguile rivers. Silver is widely distributed in the Republic, and is generally found combined with gold, copper, iron, and arsenic, the yearly output being about 2,000,000 ounces. Copper is found in many districts, but in small quantities, the annual output being about 30,000 ounces. The Departments of Gracias and Choluteca contain platinum in the form of leaves, grains, and nuggets, but the quantity is small and little sought after. There are deposits of lead in the high central tablelands, the annual output of this metal being about 8,800 pounds. The iron of Honduras is of superior quality, and is found in the form of oxides and combined with sulphur. There is a nickel mine in the Republic, and tin, bismuth, and antimony are frequently found.

Bituminous coal is found on the Atlantic coast in the Department of Yoro, and in the neighborhood of the Ulua River. Cinnabar and opals are found in the Department of Gracias. The opals are abundant at Erandique, and are equal to the Hungarian opals. Petroleum is also found in the Republic.

The annual exports of salt, through the port of Anapala, amount to 330,000 pounds. Alum, nitrate of potash, sulphur, asbestos, and mica are found in different places, and it is likely that if the territory were properly studied, petroleum, precious stones, and deposits of uranium and its compounds might be found.

COMMUNICATION.

It is in the development of transport facilities that the future of the country lies. The only public railway extends from Puerto Cortes for 56 miles inland, and near the port of La Ceiba there are 30 miles of private line connecting banana plantations with the coast. Additions have recently been made to this road. A wagon road from Tegucigalpa to the coast has been constructed, but in consequence of heavy rains and floods is not always in good condition. With the repair of the bridges and the reduction of the curves in the more mountainous parts, it will be possible to restore the automobile wagon traffic which was inaugurated in 1906.

That the Government is desirous of advancing the development of national industries is evidenced by the creation, under a recent executive decree, of a Department of Agriculture, charged with the promotion of such matters as logically appertain to its work. Another step in this direction is taken by the preliminary contracts for rail-



CATHEDRAL OF SAN MIGUEL, TEGUCIGALPA (CITY OF THE SILVER HILLS), HONDURAS.

This edifice was erected in 1782 and occupies an entire square fronting the Plaza. It is built of burnt brick and the architecture is half Moorish in style. Statues adorn the niches and the interior is embellished with ancient paintings.

road building between the banana plantations of the interior and the ports of shipment, while the project of colonizing certain sections of the Republic with natives of central or northern Europe is under consideration.

In connection with the opening of the railroad line in northern Honduras for the service of the fruit-shipping industry, it is noted that the extension of the interoceanic line from its present terminus at La Pimenta to Puerto Cortes, a distance of 230 miles, is on the point of satisfactory conclusion. The opening up of the tracts traversed by the road under contemplation would give a tremendous impulse to the already notable development of the San Pedro district. The tremendous increase in trade between the Pacific ports of Central and South America with the United States would, outside of local traffic, make such a road a paying investment. Its construction would also open to exploitation rich fruit and agricultural lands, mineral deposits, and tracts of valuable forest reserve.

Two contracts are under consideration between the Republic and the United Fruit Company. One stipulates the lease, for a period of sixty-five years, of the National Railroad from Puerto Cortes to La Pimenta, with the privilege of rebuilding the same and of constructing branch lines from the main line to the neighboring banana plantations, the extension of branch lines to be not less than 30 miles. The other contract relates to the construction and exploitation of a line from La Pimenta to the Gulf of Fonseca, with branch lines to the neighboring plantations; the life of the contract will be seventy-five years.



At the close of 1906 it was thought that the succeeding year would be unmarked by any variation in the generally prosperous conditions prevailing throughout the Republic of Mexico, which expectations have been confirmed by a material development and economic vitality indicative of continued growth and healthy vigor during 1907 under the administrative direction of President PORFIRIO DIAZ.

Import duties and consular fees show a considerable increase, an advance of more than 16 per cent being noted as compared with the preceding year, although the tariff rates remained unchanged. The sale of common document stamps also reveals a marked increase in the volume of internal business transactions with the added circum-

stance that during the course of the fiscal year 1906-7 the schedule of the stamp revenue was modified in such manner as to reduce considerably the rates payable on the greater part of the operations thus taxed.

In regard to the Federal contribution, which is assessed on all taxes and all forms of revenue collected by state and municipal authorities, a fair gain is also observable, thus proving a continued growth in tax collections. The demand for special stamps for the payment of the required taxes on mines, tobacco, alcoholic beverages, cotton textiles, and explosives also indicate a sustained expansion in the industries affected.

The earnings of the postal and telegraph lines show considerable growth, while in the Federal District activity in real estate deals and in commercial and industrial enterprises as a whole was greater than in previous years.

The importation of foreign corn and wheat is one of the most decisive factors in determining the status of the local money market, owing to the large remittances abroad necessitated by the condition.

During the early months of the year the value of real estate and the quotations of industrial, mining, and commercial securities continued to rise, and a comparison of similar quotations with those of 1906 would, in general, show satisfactory results. By the middle of the year, however, the stringency in foreign money markets began to affect the Mexican situation and capital became more and more reluctant to engage in Mexican undertakings. The fiscal year 1908-9 may suffer from this anomalous and uneasy condition, but the Republic continues to indicate strength and vitality in its public resources which place it on a satisfactory plane among the nations of the world.

Various measures were taken for keeping the Republic in touch with other parts of the world through participation in agricultural and scientific expositions, and on July 1 a new agricultural bureau was established as part of the National Government, for the purpose of studying questions connected with pastoral and agricultural pursuits and of disseminating the results of such investigations for the benefit of native husbandmen. Foreign companies were organized for the exploitation of the guayule and other shrubs having a commercial value, while concessions were granted for the development of marine industries and the utilization of waterways.

FOREIGN AFFAIRS.

The spirit of concord and good will was maintained between the Republic and the various nations of America, and a convention signed at the third International Conference of American States, at Rio de Janeiro, providing for the creation of an international com-



AN ARTIFICIAL LAKE IN THE PARK OF CHAPULTEPEC, MEXICO CITY.
In the background is the Palace of Chapultepec, the summer residence of the President of Mexico, one of the most beautiful and historic spots of the Republic.

mission of jurists, after being approved by the Senate, was ratified by the Executive and promulgated officially with a view to its observance on June 25. The convention also signed at this conference, on August 13, 1906, extending until December 31, 1912, the treaty on pecuniary claims signed at the City of Mexico January 30, 1902, at the Second International American Conference, which was approved by the Senate on October 23, 1907, and ratified by the President on November 18, 1907.

A convention with Salvador for the exchange of parcels post was signed at Mexico City on October 12, 1906, and promulgated by President DIAZ on May 17, 1907.

The arbitration treaties under negotiation with the Washington Government are favorably reported on, and the adjustment of controversial matters between the two Governments in a spirit of fairness and friendliness is noted.

On September 27, 1907, the Republic's acceptance of the Declaration of Paris of April 16, 1856, with regard to special points of maritime law, including the abolition of letters of marque, was made known by the nation's delegates to The Hague Conference, other adopted conventions being also signed with the exception of one treating of the firing of projectiles and balloons. These conventions, as well as an extradition treaty with the Netherlands, will be submitted to the Senate for action. On August 21 the final action in regard to adherence to the Geneva Convention was taken on the part of Mexico.

In accordance with resolutions of the Second International Conference of American States, the Third Sanitary Convention was held in the capital in December, the nations represented being Brazil, Colombia, Costa Rica, Chile, Ecuador, the United States, Guatemala, Honduras, Nicaragua, Salvador, Uruguay, and Mexico. One of the results of this gathering was an increase in the number of adhesions to the Sanitary Convention signed at Washington in 1905, the new signatories being Brazil, Colombia, and Uruguay.

The satisfactory status of the settlement of the Venezuelan claims is to be noted, and the conditions of the Magdalena Bay concession with the United States are favorable to the interests of both countries.

The Republic was awarded for its exhibits at the Jamestown Exposition fourteen first and four second prizes.

An important event of the year was the participation of the Republic in the Central American Peace Conference. Mexico, being in accord with the United States, invited the countries of Central America engaged in war to peacefully settle their disputes at a peace conference which would formally secure for them in the future a state of permanent peace. The united efforts of Presidents DIAZ and ROOSEVELT were welcomed by the Central American nations, and all of them appointed their representatives. The matter had a favorable

solution at the Washington conference by the signing of treaties and conventions, the stipulations of which, if faithfully complied with, will insure the peace and consequently the progress and development of the Central American Republics. This fact is of great importance for Mexico, both because of the direct part which its Chief Executive took in securing the agreement among the conflicting countries and also because the progress and peace of Central America will rapidly develop its commercial relations with those countries.

The Hon. ELIHU ROOT, Secretary of State of the United States, was the guest of the nation during a few weeks in the latter part of the year, and thus had the opportunity of noting the actual progress and conditions of the Republic.

FINANCE.

Particular mention is to be made of the prosperous condition of the national exchequer in contrast to the financial stringency prevailing for several months of the year in the business world. The decline abroad of the prices of most of the national products inevitably affected many industrial enterprises, but measures taken by the Department of Finance and the improved quotations lately given for silver, henequen, and other staples of export minimized the unfavorable conditions.

Normal revenue is placed at \$51,692,500 and the total expenditure at \$51,601,900, leaving a surplus of \$90,600. The fiscal revenues for the year 1906-7 are estimated to have been \$10,000,000 in excess of expenditures provided for in the budget. Collections from normal budget sources and profits obtained from the Exchange and Currency Commission reached the sum of \$56,500,000. Import duties furnished \$3,000,000 and stamp taxes \$750,000 of the increase over the preceding year. The \$26,000,000 yielded by import duties is just double the amount collected from the same source in 1901-2.

In the budget estimate of revenues for the fiscal year 1908-9 taxes on foreign commerce are placed at \$24,800,000; internal taxes at \$16,027,500; special taxes in the Federal District and Territories, \$5,465,000; public services, \$3,202,500; revenue from national lands, \$132,500; and profits and minor sources, \$2,065,000.

The revenues collected by the custom-houses of the Republic during the fiscal year 1906-7 were as follows: Import duties, \$26,191,336; export duties, \$530,690; port dues, \$571,790, making a total of \$27,293,816.

The foreign debt of the country was reduced in the fiscal year 1906-7 by \$2,144,600, but the interior debt was increased by the issue of 5 per cent bonds to the amount of \$1,053,600, paid as subsidy to the Kansas City, Mexico and Orient, Merida and Valladolid, and Pan-American railways.

The monetary situation of the country improved considerably. The scarcity of subsidiary coins altogether disappeared and the circulation of gold became more abundant. This is in part nullified by the exportation of silver *pesos*, which was due in 1906-7, as in 1905-6, to the rise in the price of bar silver as compared with the gold value of the silver contained in the *peso*. The total mintage of coins from the time of the installation of the monetary reform, on May 5, 1905, up to June 30, 1907, was \$47,780,785. The Exchange and Currency Commission has discharged the functions of its office with marked ability and has succeeded in two years in replacing almost all the old currency with coins struck in accordance with the monetary law of 1905.

The solidity of banking institutions in the Republic is well established, and the recent stringency in the money markets of the world did not prevent the banks of the country from meeting their obligations in cash. The proposed establishment of a national chamber of commerce, charged with the promotion of trade and the management of commercial affairs, will, it is anticipated, further solidify the national credit, while the conference called by Minister LIMANTOUR for the discussion of economic measures by delegates from the various banks of the Republic has met with favorable response.

The assets and liabilities of the banks of the country balanced on June 30, 1907, at \$361,881,000, as against \$314,440,000 on the same date of the preceding year. The subscribed capital increased from \$73,300,000 on June 30, 1906, to \$81,300,000 a year later, showing an increase of \$8,000,000. The holdings of cash diminished by \$1,791,000, which was undoubtedly occasioned by the withdrawal of 13,000,000 *pesos* for shipment abroad.

The reported status of the thirty-four legally chartered banks of the Republic at the close of 1907 was most satisfactory. The reforms to be made in the method of operating banks in the Republic have been agreed upon by the representatives of the chartered banks of the country and will be enacted into law by the national Congress.

COMMERCE.

The total foreign trade of the Republic in the fiscal year 1906-7 was valued at \$240,690,000, as compared with \$244,911,000 in the previous fiscal year.

The imports amounted to \$116,681,000, against \$109,884,000 in the fiscal year 1905-6. Exports for the same periods were \$124,009,000 and \$135,027,000, respectively.

Of the imports, \$73,188,000 came from the United States, as compared with \$72,770,000 in the fiscal year 1905-6, and of exports, the same country took \$87,904,000, against \$93,000,000 in 1905-6.

The share of imports from other countries during the fiscal year 1906-7 was as follows: Germany, \$12,214,000; Great Britain, \$11,796,000; France, \$8,816,000; Spain, \$3,986,000; Belgium, \$1,561,000; Italy, \$987,000; Austria-Hungary, \$669,000; Switzerland, \$537,000. Exports to other countries in the same period were: Great Britain, \$15,937,000; Germany, \$10,059,000; France, \$4,077,000; Belgium, \$2,654,000; Spain, \$1,499,000; Cuba, \$1,186,000.

Of the total imports, 62.7 per cent came from the United States, as against 65.99 per cent in the fiscal year 1905-6, and of exports, 70.8 per cent went to the United States, compared with 68.6 per cent in the preceding fiscal year.

The leading articles exported to the United States were: Coffee, \$1,732,808; copper, \$17,881,815; ixtle, or tampico fiber, \$1,131,567; sisal grass, \$14,153,047; oranges, \$63,703; goatskins, \$2,443,187; hides of cattle, \$1,363,024; india rubber, crude, \$3,812,311; lead ore, \$3,139,253; sugar, not above No. 16 Dutch standard, \$1,023,574; wood, mahogany, \$781,070.

The leading articles imported from the United States were: Agricultural implements, \$519,829; cattle, \$849,492; corn, \$963,840; wheat, \$1,445,052; automobiles, \$629,807; passenger and freight cars, \$1,788,079; coal, \$3,273,568; copper, \$1,029,999; electrical machinery, \$1,551,562; telegraph and telephone instruments, \$753,969; steel rails, \$1,052,189; structural iron and steel, \$936,493; wire, \$1,082,570; hardware, etc., \$1,149,006; pipes and fittings, \$1,624,648; sewing machines, and parts of, \$732,031; boots and shoes, \$1,662,842; lard, \$805,490; mineral oil, crude, \$1,121,546; vegetable oils, \$1,101,500; paraffin, \$656,649; lumber, \$2,712,264; furniture, \$1,053,020.

The prosperity of the Republic is emphasized by the figures lately issued covering foreign trade from July to December, 1907, the first half of the fiscal year 1908, where it is shown that imports had increased over the corresponding period of 1906 by \$7,615,495 and exports by \$4,951,468, making a total trade advance of \$12,500,000 for the half year. On the basis of previously issued statistics, the commercial movement of the Republic for the calendar year 1907 is represented by \$213,440,000, of which \$93,950,000 is for imports and \$119,490,000 for exports.

In the matter of imports, it is found that the United States remains in the lead and supplies the Mexican market with more goods than all the countries of Europe taken together. Germany leads in the European import list, a position formerly occupied by Great Britain.

The United States continues to be the leading purchaser of Mexican products, the next ranking country being Great Britain, followed by Germany, France, Belgium, and Spain. France and Spain during the fiscal year 1906-7 increased their purchases by \$22,000 and \$393,000, respectively, while the United States receipts of Mexican



MUNICIPAL PALACE, CITY OF PUEBLA, STATE OF PUEBLA, MEXICO.

One of the finest and most commodious municipal buildings in the Republic, overlooking a beautiful park and the magnificent cathedral of the "City of the Angels."

goods declined by \$5,100,000; those of Great Britain declined \$4,899,000; Germany by \$206,000, and Belgium by \$979,000.

Out of the total shipments to Latin America in the fiscal year 1906-7, valued at \$1,633,000, Cuba took \$1,186,000. Imports from Latin America figure for but \$322,000, including the West Indies.

Increased imports are noted in animal substances, textiles and manufactures thereof, chemical and pharmaceutical products, and, in general, in all the tariff groups of imported merchandise. The greatest and most significant increase is shown, however, in machinery and apparatus of all kinds, imports under this head advancing from \$10,205,000 to \$13,867,000, a gain of \$3,662,000. Owing to the heavy importation of freight cars and automobiles, the classification of vehicles ranks next among imports, showing a marked advance, the figures for the two years, 1906-7 and 1905-6, being \$4,500,000 and \$2,297,000, respectively. The decline of \$3,935,000 noted in regard to imports of mineral substances is largely explainable by the fact that in 1905-6 large quantities of Mexican coins were minted in the United States, and though the record for such transactions in 1906-7 amounted to \$11,500,000, it was much less than that noted for the preceding year.

The production and exportation of precious metals, which with copper and lead constitute more than 95 per cent of the mineral output, is given as follows: Gold production, \$18,281,000; gold exportation, \$11,936,000; silver production, \$38,544,000; silver exportation, \$49,930,000. The gold output is thus shown to have remained practically stationary, while that of silver advanced by \$741,610 over 1905-6. Copper and lead declined in the reported output, owing to the closing down of some low-grade mines, while zinc, antimony, and various other mineral substances were mined on a larger scale. Other than gold and silver, the exports of metals for the year show the following figures: Copper, \$14,400,000; lead, \$1,822,000; others (including zinc and antimony), \$2,036,000.

Vegetable products exported comprised henequen, \$15,720,000; ixtle, \$1,906,000; coffee, \$3,618,000; leaf tobacco, \$947,000; chick peas, \$2,042,000; chewing gum, \$1,072,000; cabinet woods, \$1,084,000; dye-woods, \$368,000; rubber, including guayule, \$3,339,000; guayule plants, \$30,612.

Foremost among the vegetable products of which the exportation has increased are: Rubber, including guayule, whose shipment began five years ago, and which now exceeds \$3,250,000 per year; chick peas, whose export has increased threefold in the same period; ixtle, which advanced from \$1,500,000 to \$1,900,000, and chicle, or chewing gum, of which the gain has been 50 per cent. Henequen remains at approximately \$15,000,000 and the quantity shipped fluctuates between 82,000 tons and 110,000 tons, which was the figure reached in 1906-7. The

year was not favorable to coffee, which shows a decline in exportation value of \$1,000,000.

The value of animal products shipped abroad was \$5,575,000, showing a decline of \$285,000 as compared with the year 1905-6. The chief items were cattle, \$600,000, and untanned hides, \$4,437,000. The decline noted in cattle exports was owing to the closing of Cuban markets to Mexican animals and the increasing demand at home for live stock. Untanned hides constitute a line of exports that is gaining in importance yearly. Other items of export consist of refined sugar, \$582,000; coarse sugar, \$13,300; cotton-seed meal and cakes, \$423,000; palmetto hats, \$315,000; tanned hides and skins, \$17,000, and manufactured tobacco, \$246,000.

The continued development of the foreign commerce of the Republic has necessitated the reorganization of the consular service, and a new bureau has been added to the Department of Foreign Relations, charged with the administrative features of the service.

INDUSTRIES.

A new agricultural bureau was established during the year for the purpose of studying the questions connected with pastoral and agricultural pursuits and disseminating the results of its investigations to the farmers of the country. This step is sure to do much to advance agriculture in the Republic.

Sugar production was 119,000 tons, as compared with 107,500 tons in 1905-6, while for 1907-8 the estimated production is 115,000 tons. This falling off is attributed to the scarcity of rainfall in the State of Morales, the principal sugar-producing section. In other districts it is estimated that the average yield may be anticipated. There are 773 properties worked, and the interest in sugar growing and manufacturing has been greatly stimulated by the increased import duties levied on the foreign product in February, 1908. Since last year two United States factories have been established, one on the Mexican Central between San Luis Potosi and Tampico and the other on the Mexican Railway, about 56 miles from the port of Veracruz. Both are equipped with modern machinery and have capacities of 3,000 and 800 tons daily, respectively. New machinery has been installed in many of the old establishments, and the quality of the product has been brought up to the best standard.

The cotton crop of the Republic for 1907 did not exceed 80,000 bales, 50,000 less than the last crop. This decrease is due to the fact that the number of acres cultivated was less in 1907, and also to atmospheric conditions. The conditions at the present time are just the reverse of those of a year ago. There was then the largest crop on record, which led to an exportation of over 50,000 bales to Europe. The area for 1907 planted in cotton is estimated to have been 250,000

acres. The fiber of the Mexican cotton is of good length and strength, thinner, however, than that of American cotton, less silky, and not so clean.

The yield in the Laguna district is only 50 per cent of the season of 1906-7, and the total supply of domestic cotton will not be sufficient to fill the requirements of Mexican mills for the 1908 season until the new crop comes on in the fall. There will probably be required between 25,000 and 30,000 bales before September 1, 1908, depending upon consumption by mills. This will be somewhat less than the preceding season, due to two facts: The unsatisfactory labor conditions in mills, resulting in shorter time and less output for machines, and a further reduction in raw cotton used, owing to the slightly increased proportion of finer yarns, which reduces consumption per spindle. Consumption in 1906-7 was about 155,000 bales of 500 pounds each.

The quality of the cotton goods output of the Republic is constantly improving. One of the most productive and at the same time best developed of the Mexican industries, is the manufacture of cotton yarns and cloth. The production of the staple in the Republic yields about one-half the amount required for use in her industries. The nation imports annually a small quantity of Egyptian cotton for use in mercerized weaves. The exports of cotton from the United States to Mexico during the fiscal years 1905, 1906, and 1907 were valued at \$3,768,126, \$1,620,443, and \$36,413, respectively.

For 1906, 125 factories were reported in operation, and the increase in cotton-manufacturing plants in the country since that period has been limited. The greater number of the cotton mills are of modern construction and patterned largely after the mills of the United States and continental Europe. Many of the mills have recently abandoned their old machinery for that of later and more modern design, so that it may be safely stated that practically all the cotton mills in the Republic are modern in equipment. The United States furnishes about one-third of the machinery used in the Republic in the manufacture of cotton goods, the remaining two-thirds, as now employed, coming from England and Germany.

The henequen industry, practically monopolized by the Yucatan peninsula, was subjected to a business crisis during the year, in consequence of which, on April 23, 1908, a law was passed exempting raw henequen from the payment of export duties. Provision for the refund to the producers of henequen of the amount of export duties paid by them on the fiber exported since February 16, 1908, was also made.

Although Mexico as a rubber-producing country does not yet rank very high, it is the country where rubber was originally found by the Europeans, and is in the lead in regard to area under rubber cultivation, figuring for 95,000 acres.

The Mexican Rubber Planters' Association assembled in convention in the city of Mexico on October 9-10, 1907, for the purpose of considering the best means for promoting the development of the industry throughout the Republic.

The guayule shrub, which is being milled in the factories of the country, grows over but a limited area of Mexico. No care is taken in its gathering and no reseeded or otherwise propagating the plant is provided for. A recent contract made with the Government in this connection, however, includes certain stipulations as to this matter. The high prices offered by the factories have led to a reckless harvesting of the immature shrubs, with the result that in many cases large lots of guayule are received which do not yield the desired rubber. Conservative experts place the area covered by the guayule plant in the Republic at 185,000 acres, situated in the northern part of the States of Zacatecas and San Luis Potosi, the eastern part of Durango, and particularly the southern part of Coahuila. The plant is also found, in more or less abundance, in the States of Nuevo Leon and Chihuahua.

The present guayule reserve is estimated at 375,000 tons, based on an average output of from 450 to 700 pounds per acre. The average yield of the grown plant is fixed at from 8 to 11 per cent of rubber. Some experts, however, consider that with improvements in the process of extraction the yield may become as high as 18 per cent.

Rich companies have been formed for the exploitation of this industry, and there are in northern Mexico at the present time ten large companies, with fifteen factories in operation and several in construction, in which a number of prominent American capitalists are concerned. The principal factory at Torreon has a motive force of 1,800 horsepower and works large enough to treat 100 tons of the raw product daily. Some of the guayule has to be transported on the backs of mules for over 100 miles before reaching the factory. German interests in guayule are also represented on a large scale, and it is said that the Dresdner Bank and the firm of Krupp have invested large sums of money in this industry.

The tobacco industry is still subject to numerous vicissitudes, showing that the difficulties arising from Cuban competition have not yet been overcome. Effort is being made to stimulate tobacco growing and export, and the Mexican legation at Peking, China, has addressed a communication to the various consuls of the Republic in that Empire, containing questions in regard to the probabilities of success for the introduction of Mexican tobacco in China.

The total production for export in 1907 amounted to 3,572,452 pounds of leaf tobacco and about 440,000 pounds of cigars and cigarettes, noteworthy shipments being made to Cuba.



LORETO SMELTING PLANT, PACHUCA, STATE OF HIDALGO, MEXICO.

This smelter is situated in one of the great silver producing sections of the Republic and produces ore by the "pyro" process, and is especially competing with the most scientifically constructed smelters in the treatment of certain kinds of argentiferous ores.

One of the principal measures adopted for the encouragement of agriculture is a law concentrating under the Department of Fomento all establishments which are charged with imparting a knowledge of husbandry, the Department being authorized to reorganize the methods of agricultural training. In consequence the National College of Agriculture and Veterinary Surgery opened its classes under a new curriculum and with 240 students from all the States of the Republic. A central experiment station has been established in connection with the college, the results of whose labors will be communicated to similar stations to be founded in the various States and Territories for the acquisition of a scientific knowledge of agricultural pursuits.

There is a constant growth in the number of applicants for concessions to use water courses subject to Federal jurisdiction for irrigation and motive power. In 1907, 52 concessions, to be used for the objects stated, were granted, and 63 title deeds were issued, some for the purpose of confirming previously acquired rights and others as a result of new concessions.

The work of the geographic and geodetic surveys has continued with satisfactory results, and the meteorological and astronomical services have been extended and improved.

In the year 1907 title deeds to the number of 4,632 and covering an area of 1,825,629 acres were issued by the Department of Fomento. Title deeds to mines for the same period numbered 5,000, against 3,801 in the preceding year, surpassing all previous records. This is the more surprising as the decline in the price of silver and copper caused a suspension of work in several mining properties.

In addition to the well-known wealth of the country in gold and silver, late statistics show that there are now more than 1,000 copper mines being operated throughout the Republic. Of these, 302 are in the State of Jalisco, 234 in Sonora, 95 in Michoacan, 65 in Lower California, 53 in Chihuahua, and 51 in Durango.

The development of coal mines and boring for petroleum have entered a practical commercial field in the Republic, and there are said to be hundreds of thousands of tons of asphalt in the Tampico and Tuxpam districts, but the production is as yet in its infancy. The demand for asphalt is rapidly increasing throughout the Republic in the larger cities, and the next few years will, it is anticipated, witness a great development in this branch of activity. The completion of the Tuxpam Canal will also greatly simplify the difficulties of transport from the asphalt zones to the port of Tampico. Bituminous asphalt occurs in parts of the States of Veracruz and San Luis Potosi.

Many of the zinc mines on the northern Mexican border are to resume shipments of ore to the United States. The Government of

the United States has been collecting a duty of 20 per cent ad valorem on the imports, but under the decision of the court overruling the Treasury order, zinc ores will have a free entry whether they contain carbonates or sulphides. Zinc-ore shipments from Mexico are made principally to the smelters in Missouri, and in consequence of the renewal of operations from 200 to 500 cars will be run monthly to transport the ore.

The approximate number of hides and skins produced annually in the Republic is goatskins, 2,000,500, weighing 20 pounds a dozen; beef hides, 2,000,000, weighing 46 pounds each; sheepskins, 1,000,000, weighing 26½ pounds a dozen.

Small tanneries exist in most of the cities and towns, although the tanning and leather trade of the Republic is chiefly centered in Mexico City and Leon. It is customary also on many haciendas throughout the country to conduct tanning operations to such an extent as to provide from the hides and skins produced on the place all leather needed by the laborers. Cascalote is the national tanning material, being used throughout the Republic, and is exported in large quantities. Toluca is the most important point of distribution of this valuable product, the towns of Iguala, Zitacuaro, Morelia, Patzcuaro, and Uruapan dealing in the same to lesser extent. Sole leather is the principal product of the tanneries, but a considerable amount of upper and harness leather is produced.

The production of the San Rafael paper mills during the year increased by 10,267,400 pounds over 1906. The new buildings of the Progreso mills were completed in the early part of 1908, and the plant is now in a condition to produce 44,000 pounds of paper per day. In 1907 the amount expended for improvements in both plants was \$415,000. The sales in 1907 had an increase of about \$350,000 over those of 1906, and the net profits for the year amounted to \$558,000.

Cold-storage plants and deposits for the refrigeration, preservation, and management of food products exist in the Republic, and the erection and operation of a fully equipped plant for the manufacture of hubs, spokes, rims, axles, and all kinds of wagon parts is to be undertaken in the State of Oaxaca by a United States company. The company has purchased 125,000 acres of land containing vast quantities of hardwoods and will put up one of the most modern and complete plants in the Republic, not only for the manufacture of vehicle parts, but also will eventually manufacture furniture. The mill and machinery required for the enterprise has already been purchased, the mill plant to have a capacity of 100,000 feet of lumber daily. The company desires to create a demand and market in Mexico for their entire output, but will ship and export considerable quantities to the United States and Europe, as their close proximity to Coatzacoalcos gives them great shipping advantages.

Many concessions were granted during the year covering guano exploitation on the islands of the coast, and the opening up of Lower California is being entered upon with vigor.

RAILROADS.

The Department of Communications reports a total length of railways in the Republic aggregating 14,181 miles.

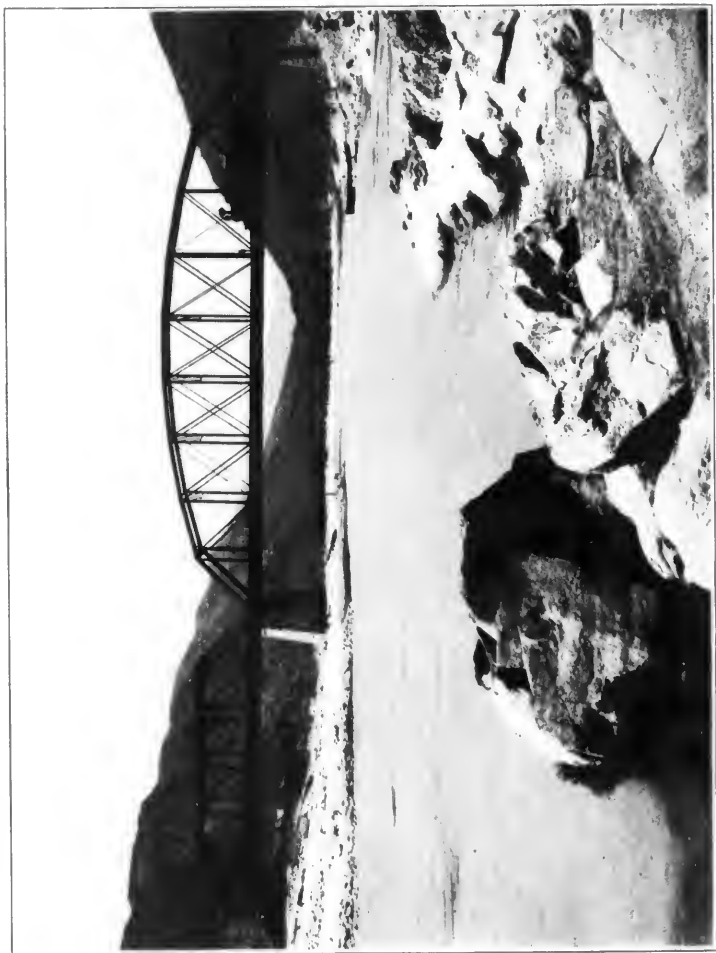
Railroad progress in the Republic during the year 1907 was slow, but what was accomplished will greatly benefit important and extensive regions of the country. Several isolated lines in different States have been united, and they now constitute small systems which will soon be consolidated into one, said lines being the Cananea and the Sonora railroads, both in the State of Sonora; the Topolobampo branch line, and the Altata and the Manzanillo lines. In the south the Pan-American Railroad is being constructed, and is now very near the valleys of Tapachula, so that one can travel by railroad from one extreme to the other of the Republic. In Chihuahua several local lines were constructed. No progress has been observed in the Yucatan system; the same was the case with the Campeche and the Tabasco lines, which in time will serve to extend the general system.

No more important legislative measure has been effected in recent years in the Republic than that covered by the decree of July 6, 1907, whereby President DIAZ approved the formation of a stock company of limited liability between the Government and seven or more stockholders of the National and Central Railway Companies. In the operations of the consolidated company the payment of certain bonds is guaranteed unconditionally by the Government. The latter also participates equally with other stockholders in all dividends accruing from the working of the lines.

With the signing of the acts of incorporation on March 28, 1908, the Mexican Railway Merger Company came into full legal existence with a capital of \$230,000,000 and securities representing \$615,000,000.

The Government exercises absolute control over the Mexican Central, including the Coahuila and Pacific leased line, the National Railroad of Mexico, Mexican International, Interoceanic, and the Hidalgo Northeastern. The International and the Interoceanic are controlled by the National, and the Hidalgo was purchased and is owned by the National. In addition to these roads the Government controls the Tehuantepec National line, connecting the Atlantic and the Pacific, and the Veracruz and Pacific, which, added to the new merger system, give the Government absolute control of over 7,000 miles of the railways in the Republic.

The status of the various railways in operation throughout the Republic is shown to be satisfactory, increased percentages being



MEXICAN CENTRAL AND PACIFIC RAILWAY BRIDGE.
Spanning the Balsas River, a turbulent mountain stream in the State of Guerrero, and assuring the continuance of railway construction to the Port of Acapulco.

noted in all branches of traffic. The figures for the year show passengers carried, 10,187,121, an increase of 16.7 per cent; in earnings from passenger traffic, an increase of 30.7 per cent; tons of freight transported, 9,538,354, an increase of 6.4 per cent; and in earnings from freight transported, an increase of 9.3 per cent.

The passenger increase was largest on the Mexican Central, and the gain in freight traffic on the National and Mexican Central lines would have been greater had they possessed the adequate supply of rolling stock. The falling off in the tonnage returns of the Tehuantepec National Railway, as compared with freight transported in 1905-6, is explainable by the cessation of the carriage of materials for the port works at Salina Cruz and Coatzacoalcos. This is offset, however, by the increase in the rates of traffic across the Isthmus, so that a substantial gain in the earnings is reported.

The reports of the Tehuantepec National Railway show constantly augmenting receipts, an increase of \$700,000 being noted in the last half of 1907 as compared with the corresponding period of the preceding year. The improvements in progress and projected at the Atlantic and Pacific terminals of this road are exciting great interest among the promoters of trans-Isthmian traffic, and it is proposed to make Salina Cruz and Coatzacoalcos rank with other world ports for the transshipment of merchandise.

Between \$25,000,000 and \$30,000,000 represents the value of United States merchandise shipped during 1907 over the Tehuantepec route between Atlantic and Pacific ports, the shortening of the transport route for Hawaiian sugar being of especial value to the dealers. This sudden and large increase in the interchanges between Atlantic and Pacific ports via the narrow strip of land which separates those oceans is chiefly due to the opening, early in 1907, of the Tehuantepec Railway, which connects the waters of those two oceans by a land haul of but 190 miles, its termini being Coatzacoalcos on the Atlantic or Gulf of Mexico side and Salina Cruz on the Pacific side. This enterprise of connecting the two oceans by this short land haul was planned before the construction of the earliest transcontinental railway in the United States, the first concession for the road having been granted by the Government in 1857.

On June 15, 1907, the Government made a payment of \$600,000 to the Pan-American Railway Company as a subsidy for the section of the line opened to traffic about the beginning of that month. The amounts paid by the Government to the company make a total of \$2,500,000.

Numerous industrial lines were built and extended and improvements in the matter of grading and bridge construction were effected.

At Puerto Mexico, Salina Cruz, Manzanillo, Tampico, and Mazatlan port and sanitation works continued their progress toward com-

pletion, while light-houses and various river improvements contributed to the generally improved condition of water transit. Between Tuxpam and Tampico the length of canal at present navigable is 115 kilometers.

It is evident that the Republic sees the advantage of getting into closer touch with Japan, for the Government has granted a concession to a company for the establishment of a line of steamers between Mexican, Chinese, and Japanese ports.

POSTS AND TELEGRAPHS.

The revenues derived from the postal service during the year ended June 30, 1907, amounted to \$2,015,000, as compared with \$1,826,000 in 1905-6, an increase of 10.34 per cent. International money orders were exchanged in the year to the value of \$23,240,000.

On January 1, 1908, the decree of November 14, 1907, allowing an increase in the weight of letters without any alteration in the rates of postage, so as to bring the inland system into line with the agreement entered into at Rome, became operative, and on March 1, 1908, the decree of December 26, 1907, became effective, whereby the use of complimentary stamps and the delivery of registered mail matter was regulated.

Postal conventions with the Dominion of Canada, Italy, and the Republic of Salvador have been entered into for the exchange of money orders and parcels-post packages.

The telegraph system of the Republic has been increased, and 6 new offices and 1 telephone exchange were opened to the public during the year. Messages sent show an increase of 8 per cent and earnings of 11 per cent over the records for the previous half year. The Government cable lines have a total length of 481 miles.

The transactions of the Bureau of Patents and Trade-marks of the Republic during 1907 cover patents of invention to the number of 1,241, 946 trade-marks, 27 models and industrial drawings, and 96 advertisements and commercial names.

The registry of business transactions during the calendar year 1907 was very great on account of commercial enterprises, the organization of new companies, and increased capitalization of existing corporations.

Much interest is evidenced in connection with municipal conditions in the Republic in the decree of the Government providing for a reduction of municipal taxation in certain sections of the country. There has been much complaint in the past about high taxation, and now the Government is making a very careful estimate of real estate properties and their taxable values in order to make sure that there is no greater burden imposed on the people than is absolutely required

for the good of the public service. An official commission has been working for several years in order to bring about this new condition.

PUBLIC INSTRUCTION.

In educational measures the Republic has in every way advanced its position, both at home and abroad; new schools and institutes being inaugurated under Government supervision, while participation was had in the Congress of Mothers, held recently in Washington, and delegates appointed to take part in the Vienna Congress of Architects and of Americanists. To the latter body an invitation has been extended to meet in Mexico in the centenary year of the nation's independence.

At the International Congress of Dermatologists, held in New York during September, 1907, and the National Association of American Schoolmasters in Los Angeles in August, Mexican delegates were present, in the last-named instance public recognition and appreciation of their attendance being unanimously voted.

The Republic at present maintains 568 primary schools, of which 398 are situated in the Federal District and 170 in the Territories. Attendance aggregates 62,686, or 3,330 more pupils than were recorded for last year.

Preliminary measures are under way for the taking of a new census of the Republic, which is ordered for October 28, 1910.

PUBLIC WORKS.

In addition to expenditures previously authorized for public improvements throughout the Republic, an Executive decree was promulgated on December 17, 1907, providing for the outlay of about \$5,345,000 on the following enterprises: For port works at Salina Cruz and Coatzacoalcos, in addition to sums previously authorized, \$2,585,000; for the erection of an asylum, \$750,000; for the erection of a college, \$500,000; for water supply in the City of Mexico, in addition to previous authorizations, \$1,500,000.

The sanitation works of the capital include the addition of 2,448 yards of main sewer, 8,341 yards of lateral sewers, and 4,136 yards of drains, while other municipal improvements cover new charitable and corrective institutions, public gardens and lighting, a new market, extended paving areas, and road improvements.

The Republic is to be advertised in London by an exhibition of its railroad, industrial, and mining activities, which will be displayed in the Crystal Palace, May to October, 1908. While this is being arranged by the directors of that institution, and it is not done on the initiative of the Mexican Government, an invitation has been extended to President DIAZ to lend his aid, and the Government of Mexico signified its willingness to cooperate for the success of the exhibition.



NICARAGUA

On December 1, 1907, President J. SANTOS ZELAYA, of Nicaragua, addressed an important message to the National Legislative Assembly in which the work of the Executive during the two preceding years was outlined. Special reference was made to the internecine troubles of the independent States of Central America, culminating in the Washington Conference for the maintenance of peace.

Relations with the United States are sincere and cordial, and the small differences that have arisen in regard to some contracts ceded to American citizens will be satisfactorily adjusted.

The treaty of friendship, commerce, and navigation, as also the consular convention with the German Empire, have been prorogued for ten years. Treaties were agreed upon with Great Britain covering the recognition of Nicaraguan sovereignty over the Mosquito Reservation and the annulment of the port privileges of San Juan del Norte. With Italy and Belgium treaties were made of friendship, commerce, and navigation, covering also extradition and consular convention.

Other treaties and conventions approved by the National Assembly are:

Arbitration treaty with the Kingdom of Belgium, signed at the city of Guatemala on the 6th of March, 1906; Universal Postal Convention of Rome, signed by the delegates of various nations of the world in the city of Rome, on the 26th of May, 1906, with the final protocol of the same date, which were also signed by the representative of Nicaragua; convention for the establishment of an International Institute of Agriculture, signed by the delegates of the various nations in the city of Rome on the 7th of June, 1906—also signed by the Nicaraguan representative; naturalization convention signed at Rio de Janeiro on the 13th of August, 1906, by the delegates to the Third International Conference of American Republics; convention on patents of invention, drawings and industrial models, trade-marks, and literary and artistic property, signed in Rio de Janeiro on August 23, 1906, by the delegates to the Third International Conference of American Republics; convention in regard to pecuniary claims, signed in Rio de Janeiro on the 13th of August, 1906, by the delegates to the Third International Conference of American Republics.



NATIONAL PALACE, MANAGUA, NICARAGUA.

This palace was formerly used as a convent, but is now the President's headquarters and Legislative Hall. The building is one of the largest and best constructed of its kind in Central America.

FINANCE.

An increase in the issue of exportation bonds to meet the service of the foreign debt was decreed by the President, the original sum fixed having been \$75,000, which is now advanced to \$400,000. The obligations of the debt were punctually met during 1907, and the general improvements inaugurated through concessions for the exploitation of natural products indicate a continuance of so satisfactory a condition. A railroad contract has been entered into for the construction of a line from San Juan del Sur, on the Pacific coast, into the interior; the bar of the Rio Grande is to be dredged and navigation facilities improved, while concessions for mineral and gutta-percha exploitation have been made whereby the Government receipts will be greatly augmented.

A Presidential decree of November 17, 1907, increased customs duties on imports 10 per cent, and from December 1, 1907, a "wharf tax" was collected on all passengers, baggage, and freight arriving or departing from the custom-house wharf at the "bluff" in Bluefields. Bananas and Government mail are the only exceptions to the regulation.

For the two years 1906 and 1907 the revenue was estimated at \$4,086,000 and the expenditures at \$4,188,000.

The sale of spirits is a Government monopoly which was leased for six years from January 1, 1904, to a syndicate of distillery owners who pay annually \$536,400 for two years, and \$568,000 for four years. The Government monopoly of the match industry was also decreed from January 8, 1908.

COMMERCE.

Nicaraguan imports from the United States in 1907 were valued at \$1,790,598, as compared with \$2,041,231 in 1906, while exports thither were \$1,202,878 and \$1,331,172, respectively, for the two years under comparison. In 1905 the United States furnished 53.8 per cent of the imports and took 40.5 per cent of the exports of the Republic.

The total foreign trade of the Republic in 1905, the latest year for which statistics are available, was \$6,949,019, imports being \$3,407,204 and exports \$3,541,815. The principal exports were coffee, \$1,541,102; timber, \$51,620; gold, \$642,132; rubber, \$472,063; bananas, \$296,414; cattle, \$192,676; hides, \$132,283. Of the imports, the value of \$1,907,053 were from the United States; \$742,788 from Great Britain; \$424,628 from Germany; \$264,119 from France. Of the exports the value of \$1,691,840 went to the United States; \$359,010 to Great Britain; \$420,318 to Germany, and \$654,266 to France.

In 1906 the exports to Great Britain amounted to \$360,380, while the imports of British origin into the Republic reached the amount of \$871,565.



CATHEDRAL OF ST. PETER, LEON, NICARAGUA.

This building was thirty-seven years under construction, having been completed in 1743, at a cost of \$5,000,000. The walls are of stone and from 18 to 20 feet thick, and the style of architecture is Moorish, resembling the Cathedral at Seville, Spain. The great altar consists of silver elaborately chased.

The chief exports to the United States in 1906 were rubber, \$98,750; mahogany, \$158,682; bananas, \$442,111; coffee, \$90,903; the principal imports were hardware, breadstuffs, and cotton goods.

The total exports of rubber from Bluefields for the fiscal year ended June 30, 1907, were valued at \$269,019.57. These figures are somewhat less than those reported for the two preceding years, when the valuations were \$298,464.03 and \$280,609.28, respectively, but they are in line with the general advance in shipments noted for the past six years. The shipments of gold bullion from this port for the fiscal year ending June 30, 1907, when a record figure was established, were valued at \$557,550.66, as compared with \$463,110.18 in 1906. Gold exports have doubled during the past six years.

The exports from Cape Gracias á Dios in 1907 amounted to \$188,891 against \$318,133 for the preceding year, and imports were valued at \$256,036 as compared with \$380,570 in 1906. The items for 1907 showed gold, \$131,852; hides, \$4,013; rubber, \$53,026, while the imports for the same period with their valuations were liquors, \$15,260; machinery, \$68,116; merchandise, \$76,120; provisions, \$96,540.

PRODUCTION AND INDUSTRIES.

The area of cultivation in the Republic has increased in recent years and would probably extend still further but for the scarcity of labor. The chief product is coffee, the estates of which, largely in German hands, lie in the western districts. Nicaraguan coffee is of superior quality and commands good prices. The annual coffee production of the country is about 61,600,000 pounds, of which 17,600,000 are for home consumption, leaving about 44,000,000 pounds for exportation, valued at about \$4,000,000. Coffee grows everywhere in the Republic, especially on the slightly elevated places. According to an approximate estimate there are 60,000,000 trees planted in the various Departments of the Republic.

The planting of coffee in the Departments on the Atlantic slope would develop greatly if there were better and less costly means of communication. The creation of new plantations on this slope will increase wonderfully with the building of the railroad from Matagalpa to Leon, and especially with the completion of the line from San Miguelito to Monkey Point with a branch line to Acoyapa.

In Matagalpa and Jinotega the large coffee plantations are worked by colonies of Americans and Germans, who apply the natural water power of the country to the operation of such machinery as is required. The same Departments also yield a very good quality of wheat.

Bananas are grown in large quantities in the Bluefields region and are all shipped to New Orleans.

Cacao of good quality is grown chiefly in the south of the Pacific coast region, the greater part of the product being consumed in the country.

Sugar is widely cultivated, and there are several large and many small sugar factories. The output of this article in 1906 amounted to 3,879 metric tons.

Tobacco is grown in several districts; the best is produced in Omotepe, an island in Lake Nicaragua. Tobacco growing is regulated by the Government.

Rubber is collected in the mountain forests, and there are young rubber plantations on the Atlantic and Pacific coasts.

A rubber concession recently granted will ultimately be taken over by the company at present holding two large grants from the Government, so that the corporation will control the output of all the wild forest rubber of the Republic. The production of rubber from the cultivated plantations in the Republic will be limited this season on account of the damage done to the older trees by the hurricane. Several plantations, however, have made large returns.

The forests contain, besides mahogany and cedar which are largely exported, many valuable timber trees, dyewoods, gums, and medicinal plants. Gums and resins of various kinds are abundant, and the native camphor tree is said to yield a variety equal to if not superior to that produced in the Far East. Vanilla of an excellent quality grows freely, and senna grows wild in Chontales. Many of the sections producing these plants are covered by concessions providing for rubber exploitation, and as that is the main forest industry of the country, the development of the commercial possibilities involved is at present restricted.

There are probably 1,200,000 cattle in the Republic. Cheese and milk are largely consumed. Horses and swine are reared. Maize, beans, and rice are grown for local consumption.

Local industries are the manufacture of furniture, boots and shoes, cigars and cigarettes, sugar, rum, beer, candles, and soap, but these products are almost entirely for local use.

MINING.

Of the more than 500 mines registered in the Bureau of Statistics of the Republic, 494 are producers of gold, while silver, copper, and quarries of valuable stone are scattered throughout the country. These resources are being exploited as rapidly as possible under various concessions held by natives and foreigners.

The mining law, recently promulgated, modifies in some important particulars the law of 1906, and its provisions are adapted to the encouragement of immigration.

Several of the gold and silver mines are worked by American and British companies, the mines toward the east coast in Mico, Tunkey, Cuicuina, and Pizpizare showing increased activity. Copper, coal, oil, and precious stones are also found.

The principal mining districts of the Republic are: In the Department of Jerez, the La Libertad, Santo Domingo, and Rio Mico mines; in the Department of Leon, those of Santa Francisca and Santa Rosa; in Esteli, those of San de Limay; in Segovia, those of Maulizo, San Juan de Tepaneca, Pericon, Jicanto, Murra, and Los Encinos, while the mines of the Department of Zelaya (formerly the Mosquito Reservation) are Pis Pis, Cuincuinita, Prinzapolca, Cuino, La Luz, and Los Angeles. The last-named Department comprises some of the richest and most fertile sections of the Republic, and after having remained under British rule for more than half a century is now formally incorporated in the boundaries of Nicaragua.

COMMUNICATION.

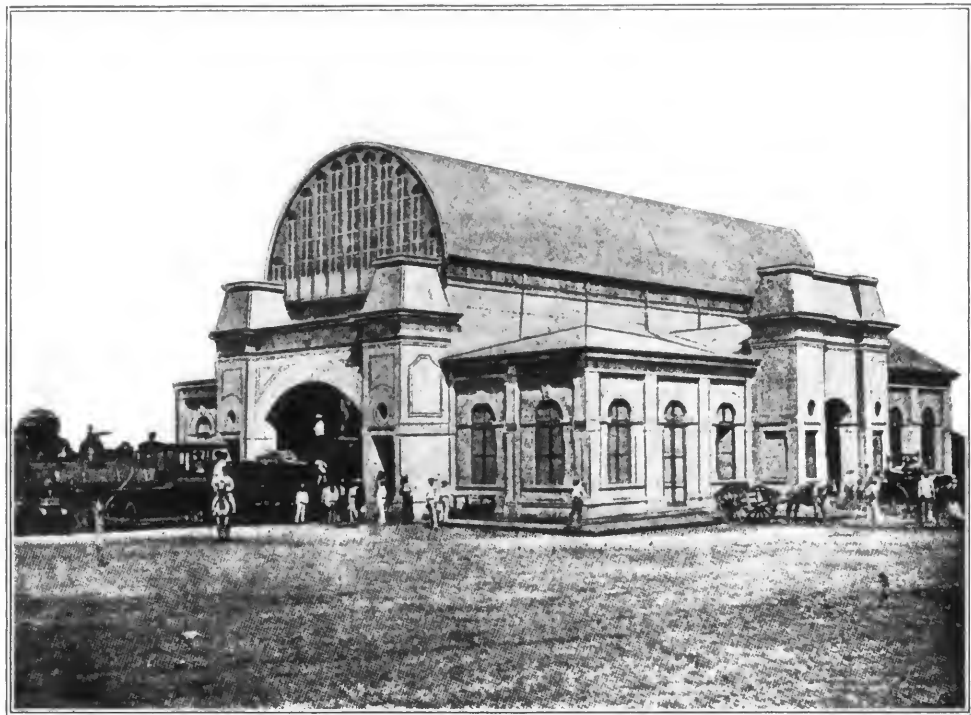
The Government is now carrying out plans long contemplated for reaching the Atlantic by rail, and actual construction is under way. The line from the Pacific at Corinto already exists, that port being reached by a railroad which extends to Granada, on Lake Nicaragua.

The harbor of Corinto permits the entrance of vessels of great draft, and at the opening of 1907 a 500-foot wharf was put into service, where large vessels may tie up with ease.

The interior towns are connected with Corinto and Granada by branch lines of railroad, the total extent of the line being 171½ English miles. In the surveys for an intercontinental railroad from New York to Buenos Aires the National Railroad of Nicaragua was accepted as one of the integral parts of the system, the portion therein embraced extending from Chinandega to Granada.

From Monkey Point, on the Atlantic Ocean, a railroad line is under construction which will reach San Miguelito, a distance of 116 miles, approximately. Shipments of rails have been received for the 40 miles of trackage decided upon, and about 500 laborers have been employed. The region traversed by this line is an entirely virgin country. In the Atlantic section banana and rubber lands are found, crossed by a number of streams. Farther into the interior are forest areas and grazing lands, the former containing quantities of wild rubber trees and valuable hard and cabinet woods. In the lake region the great fertility of the soil renders it preeminently adapted for agriculture. The facility of transport from San Miguelito via the San Juan River and Lake Nicaragua is an important consideration for the planters of this district.

The survey of a railroad, from 100 to 110 miles in extent, has been completed from Momotombo, on Lake Managua, to Matagalpa. Connection is now made from Momotombo to Managua by steamers.



NATIONAL RAILWAY STATION, GRANADA, NICARAGUA.

The City of Granada, founded in 1562, is situated on the northwestern shore of Lake Managua, in one of the richest agricultural regions of the Republic. A flourishing trade is carried on in dyewoods, indigo, and hides. Granada is celebrated for its gold wire chains of exquisite workmanship.



PANAMA

Prosperous conditions in Panama under the administration of President AMADOR GUERRERO are indicated by the fact that the fiscal revenues received during 1907 were \$5,436.05 in excess of the budget estimate, aggregating \$2,439,301.68. The bulk of these receipts were from import duties. The Republic, despite its small area, has a remarkable variety of mineral, timber, and agricultural resources and possibilities. As soon as the interior is made accessible by railroads and better highways, there is no reason why there should not be a large increase in the population and in the improvement of the lands and sections which are now practically wildernesses.

The extradition treaty signed by the representatives of Panama and Great Britain was promulgated on April 17, 1907, and a nickel coinage law went into effect on the 25th of the same month.

COMMERCE.

The total foreign trade of the Republic during 1907 aggregated \$19,165,648.49, according to the Treasury report of the Government, of which the imports were valued at \$17,204,983 and exports \$1,960,664. On the import list the United States figures for \$5,196,964.38, or 54.3 per cent, exclusive of \$7,640,533.86 credited to imports into the Canal Zone from New York without payment of duties. United States statistics record shipments to Panama valued at \$18,665,323 during the year. Imports from Great Britain amounted to \$2,028,112; Germany, \$1,061,858; France, \$334,906; Spain, 191,908; Italy, \$189,711. The United States is practically the sole recipient of the Republic's exports, taking \$1,680,953, or 85.7 per cent, during 1907.

A comparison of the exports of 1906, \$1,064,201, with those of 1907, \$1,960,664.92, shows an increase in the latter year of \$896,463.

The exports of the Republic in 1907 from Bocas del Toro were valued at \$1,423,084.25, made up of bananas, \$1,388,321.75; brier wood, \$14,180; turtle shells, \$8,347.50; caoutchouc, \$8,335; cacao, \$2,673; cocoanuts, \$1,227. Exports from Portobelo aggregated \$155,046.06, comprised of cocoanuts to the amount of \$126,046.06; vegetable ivory, \$11,014; lime, etc., \$5,279; milk of the medlar tree, \$4,704; turtle shells, \$4,690; cacao, \$2,950; woods, \$200; caoutchouc, \$97; hides, \$66. From Panama sundry products to the value of \$282,866.66 were exported, and from Colon, cocoanuts, vegetable ivory, hides, etc., amounting to \$99,667.95. Imports from the United

States cover large quantities of lumber and codfish, besides various articles of food and clothing, as well as locomotives, bridge and railroad material, tools, gasoline, etc. Steel for railway and bridge construction is also an important item of import. The imports from the other leading countries include dry goods, hardware, drugs, provisions, lumber, and liquors.

Bananas are the largest single item of export, other items being hides, rubber, cocoanuts, limes, native curios, quaque bark, and Mahogua wood. To Europe were sent rubber, sarsaparilla, turtle shell, hides, turtle meat, and cacao.

From Bocas del Toro, with the exception of bananas, which went to the United States, the entire exports were shipped to Europe. In the year 1908 it is expected that bananas will be shipped to Europe,



VIEW OF NEW CITY OF PANAMA.

The present city was founded in 1673 and is the Pacific terminus of the Panama Railway. It was formerly surrounded by a wall of solid masonry, 60 feet broad and 30 to 40 feet high, parts of which are still standing. The old unwall'd city of Panama was founded in 1515. It was situated 5 miles inland from the present city, and was sacked and burned by Morgan, the buccaneer, in 1671.

and in order to meet the demands of the expected increase of commerce the Hamburg-American Line is building steamers to be equipped with refrigerating apparatus, and these vessels will be put into trade to carry banana cargoes. It is anticipated that 4,000,000 bunches of this fruit will be shipped from the port during 1908. In the interior of the country, on the banana farms, are thousands of Jamaicans and many Americans and other farmers.

The soil of Panama is of great fertility and the climate induces luxuriant growth of tropical vegetation. Of the whole area of the Republic about five-eighths are unoccupied, and of the remainder only a small part is properly cultivated. Immigration is encouraged, and land is offered to small farmers on favorable terms.

PRODUCTION AND INDUSTRIES.

While the cultivation of bananas is the principal industry, the acreage of which is increasing from year to year, more attention is also being given to the cultivation of other products. Cacao is at present only grown by the natives, who dry the staple in the sun instead of using special apparatus, the value of the exports of this article being reported at about \$6,000. Rubber is now produced on a small scale, but with proper attention could be developed into a paying industry. It grows wild in the interior of the Bocas del Toro district, especially in the Talamanca Valley and in the Cricanola country, from which districts it is brought to Bocas del Toro by the Indian traders and sold to merchants, who ship it to Europe. Sarsaparilla is not cultivated, but grows wild in great abundance. Coffee is grown in the Province of Chiriqui, near the Costa Rican frontier. In the Province of Coclé, on the Atlantic coast, there is an important agricultural enterprise, begun in 1894 with German capital: here about 75,000 cacao trees, 50,000 coffee bushes, and 25,000 rubber trees have been planted and are now beginning to yield returns. The cultivation of coconuts would seem to be one of the best paying propositions, and the preparation of coconut oil and copra should be a profitable industry. Sugar cane is cultivated to some extent by the natives. It also grows wild in many parts of the country. The cultivation of sugar cane for manufacturing alcohol or sugar would be highly profitable, especially as the tariff on sugar products which are to be used in the manufacture of liquors has been raised to \$2.50 for 110 pounds. Henequen grows wild, but could be cultivated extensively.

Coal of good grades, chiefly bituminous, is found, and farther in the interior gold and copper have been discovered. Cattle abound in the country, the Province of Chiriqui containing the largest number of any of the provinces.

The Republic contains about 65,000 cattle, 28,000 hogs, 3,000 goats, 17,000 horses, and 1,500 mules. Comparatively few cattle are exported from or imported into the country.

The tortoise-shell turtle is found in large numbers along the coast and constitutes a large source of income. Pearl fishing is carried on at the Pearl Islands in the Gulf of Panama and at Coiba Island to the west.

COMMUNICATION.

The district surrounding Bocas del Toro has in operation 175 miles of railroad for the transportation of bananas and 75 miles in course of preparation.

The transport of United States merchandise over the Panama Railway in 1907 was valued at from \$12,000,000 to \$15,000,000. Of this,

about \$4,000,000 worth was merchandise sent from New York to the western ports of the United States and about \$7,000,000 worth from New York to Central and South American countries fronting on the Pacific, while between \$2,000,000 and \$3,000,000 worth was merchandise sent from San Francisco to the eastern ports of the United States.

The total earnings of the Panama Railroad and Steamship Line for the fiscal year ended June 30, 1906, amounted to \$3,917,840, which, compared to the preceding year, shows an increase of \$840,229. The traffic from Europe to Central America and Mexico, via the Isthmus, shows an increase of 2,621 tons, and to the South Pacific ports 4,110 tons. The traffic from Central America and Mexico to Europe shows a decrease of 7,826 tons, and from the South Pacific ports to Europe a decrease of 6,897 tons. The total through traffic from both directions showed an increase of 13 per cent.

The number of tramps or cargo steamers arriving at Colon and at the adjacent port of Cristobal with cargoes from the United States for the Isthmian Canal and Panama Railroad showed an increase during 1907 of about 12 per cent over the number in 1906, which amounted to 104 vessels, of a total tonnage of 232,409. Of these vessels about 80 per cent were Norwegian and the remainder British, the United States being totally unrepresented. The only American line of steamers connecting Colon with the outside world is the Panama Railroad Steamship Line of five steamers, which arrive and depart from the port of Cristobal, Canal Zone. There are eight separate foreign steamship lines plying in the trade of Colon, the majority of which schedule weekly sailings.

A law of the Legislative Assembly of the Republic, passed on May 22, 1907, approves a contract for the establishment of a public service of automobiles for the transportation of passengers and freight in the cities of Panama and Colon and other towns and ports of the Republic. The Government guarantees an interest of 6 per cent of the total cost of vehicles plus 20 per cent. The duration of the contract shall be twenty years from January 1, 1907.

Communication between Bocas del Toro and Puerto Limon has been established, and weekly communication by steamers between the ports and the transport of the mails is effected.

It is the desire of the Government to attract foreigners to the Republic by means of paternal legislation, and the new land law of May 29, 1907, as well as the recently promulgated port and consular regulations, have been framed with this end in view.

Many improvements have been effected in regard to sewerage system and water supply, while paving and grading of streets and the construction and renovation of both public and private buildings have engaged municipal authorities.

The United Fruit Company has obtained privileges from the Government for the erection of a large concrete and steel wharf and warehouse at a point known as Almirante, a few miles by water from Bocas del Toro; also the right to build and operate a railroad from Almirante to the Banana River, and thence to connect with the company's railroads in the Changuinola district, where they have extensive banana plantations. This line of railroad from Almirante to Changuinola is about 13 miles in length. The company also has a contract with the Government for the filling in of the town of Bocas del Toro, the raising of the houses to the required grade, the installation of a sewer system, and the building of a sea wall. The sea wall and the sewer system have already been completed. The work of filling in the town is progressing rapidly and should soon be finished. The contract calls for a number of new streets, avenues, gutters, sidewalks, etc.

The report of the Isthmian Canal Commission for the fiscal year ended June 30, 1907, signed by Lieut. Col. GEORGE W. GOETHALS, Chairman of the Commission and Chief Engineer of the works, furnishes a record of ceaseless activity, of work accomplished, and of difficulties overcome.



PARAGUAY

The prosperous conditions prevailing throughout Paraguay during 1907 are amply set forth in a message delivered by President BENIGNO FERREIRA to the National Congress on April 1, 1908, in which it is stated that the customs receipts for the year exceeded by \$500,000 those of 1906. Internal revenues also show an increase, and the agricultural interests claim a phenomenal tobacco production for the present season. In spite of a decline in the value of hides and the temporary cessation of the lumber industry, which altered certain conditions in the commercial affairs of the country, financial interests did not suffer.

FOREIGN AFFAIRS.

Paraguay continues to cultivate earnestly friendly relations with all civilized countries and was represented in all conferences of international interest, participating in the Postal Congress of Rome, the Geologic Congress of Mexico, the Third International Conference of Rio de Janeiro, the Third Latin-American Conference at Montevideo, and sending delegates to the Agricultural Congress of Rome



THE CATHEDRAL AT ASUNCION, PARAGUAY.

Built by the Jesuits and dedicated October 27, 1845, it has been the scene of many fierce conflicts in the history of the Republic.

and to the Jamestown Exposition. The Geneva convention and the various conventions of The Hague Conference received Government support. Extradition treaties were negotiated with several European Governments, and the arbitration treaty with Peru was submitted for the approval of Congress. With Brazil and Spain arbitration treaties are under consideration, and the delayed settlement of the boundary question with Bolivia is on the point of adjustment through the good offices of the Argentine Government.

FINANCE.

Revenues and expenditures for 1907 cover, for the first item, \$2,567,000 gold and \$6,080,000 national currency, and for the second, \$389,037 gold and \$30,008,806 national currency.

Receipts at the custom-houses aggregated \$2,569,920, as compared with \$2,044,080 in the previous year, while internal revenues amounted to \$366,560, against \$297,040 in 1906.

The foreign debt of the country amounts to \$4,139,449, the service being amply administered. The founding of a new State bank, beginning operations on May 14, and the excellent tobacco crop reported for the year, have greatly improved conditions and caused a cessation of gold exports without Government intervention. A considerable increase in the capital of the principal banks of the country is observed, that of the Mercantile Bank being advanced to \$10,000,000 from \$5,000,000, and of the Paraguayan Bank to \$10,000,000 from \$6,000,000. The stock issued was subscribed for in three times its value and the Industrial Bank changed its capital to gold, thereby causing its stock to be quoted in the European markets.

COMMERCE.

The total foreign trade of the country for 1907 is estimated at something over \$10,707,000, as compared with \$8,962,334 in 1906, in which year imports figured for \$6,267,194 and exports for \$2,695,140.

The share of the United States in the import trade of the Republic during 1907 is given as \$170,893, against \$110,496 or 1.7 per cent of the total in 1906, while exports thither aggregated \$7,261, as compared with \$1,205 or 0.05 per cent of the total in the previous year.

About 35 per cent of the imported merchandise comes from Great Britain, the other leading countries in the order of their importance being Germany, the Argentine Republic, France, Italy, Spain, the United States, Belgium, Brazil, Uruguay. The principal articles received from abroad are textiles, hardware, drugs, foodstuffs, hats, munitions, confectionery, beverages, dressed leathers and furs, crockery of various kinds, musical instruments, jewelry, shoes, etc. Cer-

tain specified articles are allowed free entry at the custom-houses, notably machinery, agricultural implements, seeds, coal, printed matter, scientific instruments, resins, and typographical articles.

On the export list of the country cattle products figure for \$1,000,000, covering hides, jerked beef, tallow, etc.; forest products for \$750,000, including various species of hardwoods and medicinal plants; products of extract industries for \$1,000,000, in which herba maté and quebracho extract figure largely, and agricultural products for \$500,000, the principal item being tobacco in the amount of 3,500,000 kilograms.

Paraguay produces raw materials, but has few industries. About 17,600,000 pounds of yerba maté are treated annually, one-half of which is exported and the remainder retained for home consumption.

The climate and soil are favorable to all tropical growths, and many species of rubber plants are found, the exports of this article in 1907 being over 4,400 pounds, principally to France. Cotton production is abundant, while tobacco grows practically spontaneously; indigo plants and sugar cane are also susceptible of cultivation in commercial quantities, and the forests abound in dye and cabinet woods, resins, and balsams, while a native fiber plant known as *mapajo* is used by the Indians for the manufacture of a coarse textile for garments.

Various minerals available for application in arts and industries are to be found, such as quartz, agate, opals, kaolin, iron, manganese, copper, mercury, marble, etc.

Cattle ranges are increasing in extent, and in recent years many farmers and cattlemen from the neighboring Republics of Uruguay, the Argentine Republic, and Brazil have established themselves in the country. The establishment of salting works, extract manufactories, and packing houses furnishes a sure outlet for the products of the industry in near-by markets. The meats and jerked beef of the country have high classification in consuming centers, principally Brazil, Cuba, and Spain, while the fine hides are in great demand and obtain good prices in Europe.

COMMUNICATION.

Though somewhat isolated through lack of adequate railway communication with the coast, Paraguay has direct relations with Europe and North America, through Montevideo and Buenos Aires. Two railroad lines run from the cities named toward the Paraguayan boundaries, and projects for connection with Bolivia and Brazil are under consideration.

The satisfactory settlement of the affairs of the Paraguay Central road, which is the only line in operation through the interior, has



VICTORIA REGIA ON THE UPPER PARAGUAY, NEAR ASUNCION.

This gigantic species of water lily was discovered in South America in 1801, and later introduced into England and named in honor of Queen Victoria. The leaves are 6 feet or more across, circular, with upturned rims, and very buoyant. The flower is more than a foot in diameter, is first white, turning on the second evening to rose red. The plant yields a pea-like fruit called "water corn," which is used as food in Paraguay.

imparted a new stimulus to business and the development of local resources. The length of this line is 155 miles and the projected extension of service for 70 miles, to Encarnacion, will effect a junction with the Argentine Northern, which is now being extended to Pasa-das. The rolling stock consists of 14 locomotives, 55 coaches, and 171 cargo cars. Good public roads extend throughout the interior, linking the centers of population.

POSTS AND TELEGRAPHS.

The postal service is increasing in efficiency and extent, 5,072,660 pieces of mail matter being distributed in 1906, being a gain of 1,428,177 over the previous year. A new postal tariff for foreign countries became effective in July of that year. The telegraph service has an extent of nearly 2,000 miles, of which 249 were added in 1907, and an extension to join the Brazilian lines at Iguazu is under contemplation. The two services have a personnel of 562 men.

INSTRUCTION AND PUBLIC WORKS.

A half million dollars represents the amount of money invested by the Paraguayan Government during 1907 for public instruction. Five colleges are maintained, and a national university founded in 1890 at Asuncion covers in its curriculum law, social science, medicine, pharmacy, and notarial training. Special attention is given to such scientific branches as may conduce to a thorough knowledge of the national resources and industrial possibilities and an agricultural college with an experimental farm is maintained at Government expense. Scholarship funds provide for the foreign education of young men in Europe and the United States and a normal training school for teachers has a faculty of 58 professors. The primary schools are under the direction of a national board, and at the close of 1907 numbered 383, in which 39,749 pupils were instructed by 698 teachers. The number of pupils increased by 10,000 over the preceding year.

Colonization and immigration measures are receiving Government encouragement, and model colonies are to be established in various sections.



PERU

President Pardo, whose term of office as Chief Executive of Peru expires in September, 1908, administered the affairs of the nation with vigor and efficiency during 1907, and in the election of Señor A. B. LEGUIA as his successor abundant promise is given of continued progress.

Peru was one of the States signatory to the "additional act" to the Brussels Sugar Convention of 1902, which was signed on August 28, 1907, subject to ratification before March 1, 1908. In virtue of the act, the International Union has been extended for a new period of five years to date from September 1, 1908. It is, however, permitted to any of the contracting States to withdraw from the convention from September 1, 1911, a year's notice in advance being given.

FINANCE.

The returns of the Finance Department of the Republic show highly satisfactory results for the year 1907; not only did the revenues increase, but also the expenditures were reduced, as compared with 1906. Thus, the receipts amounted to \$13,396,330, against \$12,638,830 in 1906, and the expenditures to \$10,535,205, in comparison with \$10,841,260 in the preceding year. The estimated budget for 1908 amounts to \$14,330,000.

The revenue derived from the taxes administered by the National Company of Collections amounted, during the first half of 1907, to \$2,075,000, as compared with \$2,019,500 collected during the same period of 1906.

From July 1, 1906, to June 30, 1907, there were delivered at the mint 288 gold ingots, valued at \$710,000. In the same period the following gold pieces were coined: *Libras*, 78,679; half *libras*, 81,000; fifths of a *libra*, 150,128; or a total value of \$745,000. Silver bullion to the value of about \$75,000 was converted into fractional silver coin. In accordance with law, 558,750 ounces of silver were bought and were coined into fractional coins.

The interest on the internal debt, amounting to \$13,300,000, has been paid up to date. In conformity with the law of December 17, 1898, the quarterly payments of the amortization bonds were liquidated with the \$125,000 appropriated in the budget.

The claim of the Guano Consignee Company of the United States has been paid by an issue of \$7,385,000 in bonds of the public debt.

Up to June, 1906, bonds were issued to the amount of \$9,225,000 for the payment of the debts referred to in the law of December 17, 1898. The total issue of bonds amounts to \$17,770,000, \$7,080,000 of which were in bonds of the public debt, leaving \$10,690,000 outstanding.

Business prosperity is further indicated by the report of the Peruvian Corporation, whose operations for the year ended June 30, 1907, show a profit of over \$1,000,000.



AREQUIPA, PERU. FOUNDED BY PIZARRO IN 1540.

Situated at an altitude of 7,360 feet on the site of an Inca settlement. In the background is seen the Misti Volcano, 19,200 feet high.

COMMERCE.

The Republic imported from the United States in 1907 products to the value of \$6,876,217 and exported thither \$7,098,298, while of the total imports in 1906 those of United States origin were \$5,541,157, or 22.2 per cent of the whole. Of the exports in the latter year the United States took \$3,203,480, or 11.2 per cent.

The principal articles imported from the United States in 1907 were railroad material, valued at \$1,500,000, and cotton, wool, and linen manufactures, valued at \$180,000; the balance was distributed

among different classes of machinery, agricultural implements, drugs and medicines, various kinds of oils, shoes; sewing, typewriting, and adding machines; newly invented apparatus, lard, perfumery, preserves, electric instruments and supplies, hardware, etc.

The principal Peruvian products imported through the port of New York were the following: Copper, \$3,673,894; cotton, \$626,718; sugar, \$370,257; rubber, \$226,512; goatskins, \$217,108; alpaca wool, \$186,969; toquilla hats, \$74,537; coca leaves, \$73,708.

The total foreign trade of the Republic in 1906 amounted to \$53,433,006, of which the imports were \$24,953,602 and exports \$28,479,404.

In 1906 the imports from Great Britain were valued at \$6,735,947; Germany, \$4,571,197; Spain, \$1,569,257; Chile, \$1,369,414; Belgium, \$923,947; Italy, \$834,263. During the same year exports to Great Britain amounted to \$11,916,659; Chile, \$4,834,933; Germany, \$2,585,241; France, \$2,425,347; Bolivia, \$1,510,586; Belgium, \$594,158.

Latest figures received covering the foreign commerce of the Republic show total imports for the first quarter of 1907 valued at \$5,933,510 and exports \$6,703,370. For the same period of 1906 imports figured for \$6,587,730 and exports for \$7,126,935. A total decline in commercial transactions to the extent of \$977,785 is thus indicated for the first three months of 1907, as compared with the corresponding period of the preceding year.

As yet the trade between Peru and Japan does not bulk very largely, but it is on the increase. A line of Japanese ships has been established between that country and the west coast countries of South America. In addition to many Japanese, they bring in large numbers of Chinese. Japanese shops, handling only products of Japan, are very popular.

The interest shown by the American merchants in extending their commercial relations with Peru was greater than in any previous year, the requests for information and data of all kinds constantly received at the Peruvian consulate-general in New York showing that the American manufacturers and merchants realize that Peru offers a sure and profitable field for the enlargement of their business. Under these favorable conditions it is predicted that a considerable increase in the American exports to Peru will be recorded for 1908.

Mollendo, the second port of entry of the Republic, records a continually ascending scale of customs receipts for the past four years, having advanced from \$675,000 in 1904 to nearly \$900,000 in 1907, while Callao for the first half of the year is credited with over \$1,500,000, an estimated total for the whole of more than \$3,000,000.

The commercial and maritime movements of Iquitos during 1907 indicate the progress of this important port. Customs revenues

amounted to \$1,245,000 in 1907, as against \$909,000 in 1906, and rubber exports during 1907 had a total weight of 5,189,446 pounds, distributed among the ports of destination as follows: Havre, 2,283,136; Liverpool, 2,666,382; Hamburg, 221,175; New York, 18,783.

In 1906 the rubber exports from this point amounted to 4,735,326 pounds. For the first half of 1907 Iquitos rubber shipments aggregating 3,771,020 pounds, were valued at \$3,005,000.

New customs regulations concerning the treatment of goods arriving at the principal ports of the Republic became effective on October 1, according to decrees of July 31, 1907.

PRODUCTION AND INDUSTRIES.

The chief agricultural products of the Republic and the average value of their annual production are: Sugar, \$9,000,000; rubber, \$5,000,000; cotton, \$2,500,000; wool, \$2,400,000; hides, \$900,000; coconuts, \$650,000; cocaine, \$400,000; coffee, \$200,000.

The sugar industry is carried on chiefly in the coast region. The total area devoted to sugar cultivation is about 200,000 acres, of which about half is planted with cane.

For the extension of cotton growing, irrigation works are in progress on both banks of the River Chira in the Department of Piura, where lands are now being irrigated from a canal 22 miles long. Similar works are under construction in the Department of Lima, and others are being undertaken on the coast lands. Five cotton factories are located at Lima, one at Arequipa, and one at Ica. The raw material consumed amounts to about 3,000 tons. The native raw material is said to be superior in quality to that used for manufactures of the same goods in European and American establishments. Cotton imports will be affected through the encouragement rendered by the Government to local factories and the distribution of free seed to intending cotton planters throughout the country. The best Peruvian cotton is grown near Piura and is shipped from Paita. The most recent available figures of the exports thence are for the year 1906, when they amounted to 12,488,516 pounds, valued at \$800,000, as compared with 10,369,979 pounds, valued at \$485,000, in 1905. The cotton crop in 1907 was larger and better than in 1906, and the prospects for the 1908 crop are very promising. The total exports of cotton in 1906 were valued at \$2,350,000, against \$2,060,000 in the preceding year.

The chief coffee-growing districts are those of Chanchamayo, Perene, and Paucartambo, in central Peru, where the Peruvian Corporation has done much useful colonizing work. Coffee is also grown in the Huanua district. The concession of the Peruvian Corporation comprises about 2,750,000 acres, but the labor and transport difficul-

ties in the tropical foreign region are serious. Much less than half the area conceded for colonization is occupied.

Cacao cultivation is extending, about 200,000 trees having been planted in the Perene region. Rice, tobacco, wines and spirits, wheat, olives, ramie, and maize are also produced. Silk culture is being experimented with in the coast region. The most important coca-growing district is in the province of Otuzco, in the Department of La Libertad, where there are several coca estates. For the manufacture of cocaine there are 24 small factories; besides, there are also in the country cinchona, dyes, and medicinal plants.

There is a large export of alpaca, sheep, and llama wool. The wool exports will probably increase, as a British firm is commencing a sheep farm with an area of 130 square miles, Patagonian sheep being introduced for crossing with Peruvian.

The exports of vicuna wool and hides during 1906 were valued at \$12,092 and \$1,297, respectively. During the past two years the wool, which is a fine article of a reddish-brown color, has been much in demand in England at from \$1 to \$1.25 per pound, but the supply is rapidly diminishing. The hides with the wool on are also in demand for rugs, and are valued at from \$20 to \$50 for each rug, according to the care in selection.

Thousands of square miles of healthy and fertile land of unsurpassed beauty on the eastern slopes of the Andes are available for colonization, and no doubt will soon be opened up. Rubber is collected in large quantities and shipped down the Amazon from Iquitos.

MINING.

The mineral products of the country are paramount, the value of the principal ones in 1906 being as follows: Copper, \$4,980,275; silver, \$4,864,790; petroleum, \$1,212,710; gold, \$851,775; carbon, \$690,775. Other mineral products are coal, lead, quicksilver, salt, borates, sulphur, and antimony.

Gold, silver, and copper are worked chiefly in the Cerro de Pasco region. The most active mining companies are American, but Peruvian, English, and Franco-Peruvian companies are also at work. During 1907 the Cerro de Pasco mine shipped 10,000 tons of copper out of the 28,000 tons of that metal reported from the whole of South America for United States markets. During 1908 the total shipments will probably amount to 15,000 tons. From this quantity a gradual increase to 25,000 and later to 37,500 tons is predicted, independent production supplementing it. The Peruvian prediction is that the ultimate copper output of Cerro de Pasco and the adjoining districts will be 50,000 tons. The investment of actual capital up to 1905 by the Cerro de Pasco Company was, according to the repre-

sentative of the company, \$17,500,000 gold, including large amounts paid for machinery bought in the United States.

The famous gold mine Santo Domingo, belonging to the Inca Mining Company and situated in Carabaya province, covers 90 working claims, and the company has also 63 claims, which it is not yet working, in the rich gold province of Sandia. It has recently brought out an electric plant of 400 horsepower, which will be installed at a certain distance from the mine, where there is sufficient water power. When this plant is placed, the mine can be worked on a much larger and cheaper scale.



LOADED LLAMAS IN THE HIGHLANDS OF PERU.

The llama belongs to the family of the *Camelidae*, and was the only beast of burden in the Western Hemisphere before the coming of the Spaniards. It is still extensively used in the Andes.

COMMUNICATION.

In the possession by the Republic of natural outlets both to Pacific and Atlantic ports for her products lie the brightest possibilities for future development, and the construction of a railway to unite a Pacific Peruvian port with the headwaters of the Amazon, whereby the Atlantic may be reached, is under consideration.

The treasury of the Republic has husbanded its resources for railway building with great prudence, and ample provision has been made for meeting all obligations incurred in completing the extensions both under construction and authorized by Congress.

The Pan-American project contemplates building a line along the Desaguadero River to avoid the transfer across Lake Titicaca, but

for the present the lake link may be considered a ferry of 100 miles, which is not longer than is operated by some railways in the United States. From Puno, on the Peruvian side of Titicaca, the existing railway to Mollendo is 330 miles in length. At Juliaca, 30 miles from Puno, the line bisects and a branch runs toward Cuzco. This is a part of the main trunk of the Pan-American system. After the completion of the branch to Sicuani several years ago no further steps were taken toward its prolongation, but the administration of President PARDO, which has been very active in advancing the Pan-American plans, determined to build the section on to Cuzco. The line has been prolonged as far as Checacupe, 180 miles from Puno, and active work is now in progress between that point and Cuzco, which is 66 miles distant. This extension will probably be completed in 1909.

While the line is being prolonged from the south toward Cuzco, some headway is also being made from the north to the same point. The link from Oroya north to Cerro de Pasco has been completed, and the Government has contracted with the Peruvian Corporation which operates the State railways under a long lease to build extensions from Oroya to Huancayo. The first section, from Oroya to Huari, was finished in 1907 and work begun on the prolongation to Huancayo, a distance of 63 miles. This work was inaugurated in February, 1908. The Congress has authorized the prolongation of the line from Huancayo to the city of Ayacucho as the first section in the connection with Cuzco. There are many engineering difficulties in the construction of the line between Ayacucho and Cuzco, but the vast undeveloped mineral wealth of this region assures that in time the prolongation will be made.

The building of some of the spurs from the coast and other branches which are now under way will make more necessary the construction of the Pan-American links as a backbone. The permanency of the country's railway policy may be judged from the knowledge that the prospective President, Señor A. B. LEGUIA, has been its most earnest champion.

A survey has been made to unite the different railway lines of the northern part of the Republic with each other and with those communicating with the capital.

The Government has made contracts for the construction of a railway from Oroya to the Ucayali River and for another line from the Ucayali River to the coast. In the first instance the Government contributed \$10,000,000 in bonds for the construction, and in the second the contract has been made with an American, who has deposited \$97,330 as a guaranty, the Government having conceded 4,606 acres per mile.

The Ucayali concession also authorizes a line from the same point on the Cerro de Pasco Railway to a specified point on the coast,

and if this line ever should be built there would be through direct communication from the Amazon's tributaries to the Pacific. This line would parallel the Central Railway and would compete with it.

The railways of the Republic are supplied almost entirely from the United States, particularly when locomotives and rolling stock are wanted, and the outlook has therefore a special interest for American manufacturers. The heaviest buyer is the Peruvian Corporation, of London, which, through an arrangement with the Government, is carrying out the prolongations and extensions of several of these lines. During 1907 this company received 14,000 tons of steel rails, 312,000 ties, and material for 4 bridges of from 85 to 230 feet in length. A large order for locomotives was filled in the previous year.

With the inauguration of the new steamship service between New York and Callao by the National Steamship and Floating Dock Company, of Callao (*Compañía Nacional de Vapores y Dique del Callao*) via Panama, a great economic advance in the commercial intercourse of the two sections will be brought about. This enterprise, which was expected to be in full operation early in 1908, is capitalized for \$15,000,000, and is to receive a subsidy from the Government of \$1,500,000. Fast steamers are now under construction for the line in England, and the purpose is to make the run from Panama to Callao in five instead of eleven or twelve days, as at present. The New York trade increased so greatly during the past year that it seems quite likely that direct means of transportation will soon be established between New York and Iquitos.

POSTS AND TELEGRAPHS.

The postal movement of the Republic during the year 1907 was as follows: International correspondence, 7,945,477 pieces, as against 6,921,411 pieces in 1906; domestic correspondence, 13,023,803 pieces, as compared with 13,127,316 pieces in 1906.

In 1906, 800 miles of new telegraph lines were constructed, and 330 miles were completed in the first half of 1907. The telegraph system of the Government has at present a total extent of 5,030 miles, of which 595 miles are under the control of the Peruvian Corporation. There is a double line between Lima and Trujillo, Oroya and Ayacucho, Tarina and Cerro de Pasco, and Abancay and Cuzco. A second line between Ayacucho and Abancay, and a line from Canta to Cerro de Pasco are being laid out at present, at the completion of which lines communication will be established between Lima and Cuzco by double wire. There are also under process of construction the following lines: From Ica to Nazca, Nazca to Iomas and Chala, and Moyobamba to Yurimaguas. Finally, many other lines have been projected.

The telegraphic movement in 1907 amounted to 681,879 telegrams with 15,287,787 words, as compared with 655,765 telegrams with 14,340,889 words sent in 1906.

A law passed by the National Congress on September 6, 1907, and promulgated by the President on the 7th of the same month, appropriated \$37,000 for the establishment of a wireless telegraph line from the region known as "Montaña" to the city of Iquitos. A contract has been approved with a German company for the extension of the wireless telegraph system from Masisea to Iquitos. The supplies are now being shipped from Europe for this extension.

PUBLIC WORKS.

For the purpose of encouraging fisheries, the Government has entered into a contract with a North American specialist to make a detailed report concerning the Pacific coast and the adjacent islands, believing that said investigation will greatly contribute to the establishment in the Republic of a new source of wealth, as has been successfully done in this industry in other countries.

Important and practical measures have been adopted which will doubtless be beneficial to stock raising, which is destined to become a very important factor in the production of national wealth. The Government has taken the necessary steps to prevent agriculturists from buying stock for breeding purposes unless it is entirely healthy and in good condition.

On July 29, 1907, a bill embodying an animal sanitary law was introduced in the Congress, the primary object of which is the protection of the stock-raising industry in the Republic. It is proposed by the terms of that bill to prohibit the importation or exportation of animals suffering from contagious diseases or suspected of such. The importation of animals is to be subjected to careful inspection. The proposed law contains also provisions for the prevention of contagious diseases of animals, and prescribes the penalties for violations of the law. The Executive is authorized to establish stations for the sanitary observation of animals and bacteriological laboratories in such ports as may be designated for the importation of live stock; also to organize in the city of Lima, when necessary, a bacteriological institute for the study of animal diseases and the preparation of vaccine and serums.

Various additional imposts were levied at the custom-houses of the country during the year, the proceeds to be applied to public improvements.



SALVADOR

Among the events characterizing the administration of Salvador's affairs during 1907 under President FIGUEROA, the Amapala conference of November between the Presidents of Salvador, Honduras, and Nicaragua was of value, while the active participation of the Government in the Central American Peace Conference at Washington in December is destined to greatly influence the future development of international relations. The various conventions signed at the conference of Rio de Janeiro were ratified by the Government and a postal agreement with Great Britain became effective. A citizenship convention with the United States was entered into early in 1908, and it is intended to establish a permanent legation in the latter country for the encouragement of closer relations between the two Republics.

Friendship and cordiality marked the intercourse of Salvador with other countries of the world, and all branches of public administration were well organized and administered. The Government is giving special attention to the prosecution of important public works and many improvements are being carried out.

FINANCE.

Gratifying results of the economic condition of the country are indicated in the Treasury report for 1907, showing a balance for the year of over \$80,000. Of this amount, \$60,000 represents the surplus for 1906. Revenues and expenditures were \$3,555,000 and \$3,529,000, respectively, and in the budget estimate for 1907-8 the figures for the two items are placed at approximately \$4,000,000 and \$5,000,000. The service of the \$5,000,000 loan recently negotiated is secured by certain specified customs duties, and the various banks operating throughout the country show satisfactory balances for the year.

COMMERCE.

Trade between Salvador and the United States in 1907 comprised imports worth \$1,592,473 and exports valued at \$1,191,701, both branches of commerce showing a slight increase over the preceding year, when imports from the United States figured \$1,321,765, or 31.9 per cent of the whole, and exports \$1,216,262, or 18.9 per cent.

The exports of the country during the first nine months of 1907 figured for \$6,851,540, the principal items being coffee, \$5,000,000; gold, \$1,000,000; sugar, \$190,000, and indigo, \$98,000. The United States is first among the countries of destination, the other leading countries being Germany, Austria-Hungary, Belgium and other Europe, Mexico, and the Republics of Central America.

The total trade in 1906 was valued at \$10,691,110, of which \$4,163,688 represented imports, and exports \$6,527,421, customs receipts being \$2,700,000.

The principal items of export were coffee, \$5,900,000; indigo, \$206,000; balsam, \$90,000; gold, \$1,243,000; other minerals, \$442,000; sugar, \$170,000; while leading imports were cotton goods, to the value of \$1,523,151; drugs, flour, silk goods, and yarn.

The market for Salvadorean coffee has been enlarged of late years, and Hamburg is no longer the distributing point for the European stock, as the merchants of Sweden, Norway, Holland, Belgium, and Italy buy direct from the country, thus saving transportation and commission charges. Shipments are also made to San Francisco, but a decrease in the production will lead, during the present year, to smaller exports. Shippers of hides and rubber also claim that a better market for their wares is found in Hamburg than in New York, so that a decline may reasonably be expected in these two items.

The wholesale trade is in the hands of foreigners, who supply the retail trade with articles representative of the various nationalities of the respective agencies—German, French, or American, as the case may be. There are two large houses of United States origin which make their purchases in New York and San Francisco.

PRODUCTION.

The climate and fertile soil of the country are favorable to the growing of coffee, cacao, sugar cane, tobacco, pineapples, maize, and other agricultural products and at the same time produce a rich variety of medicinal plants and useful resins. The chief culture is coffee in which about 125,000 acres are under cultivation. The Peruvian balsam is among the valuable native growths and indigo or anil was formerly obtained almost exclusively from this Republic. For twenty-five years it constituted the principal item of export, but the culture has declined at the present time. Cacao growing has also lost its value due to a disease of the tree so that exports have greatly diminished. The Government is encouraging cotton growing by export bounties.

In minerals, export values figure for more than \$1,500,000 including gold, silver, copper, iron, and mercury. Mining operations are growing in value and are conducted by native, American, and British companies.



A FINE SPECIMEN OF THE ROYAL PALM, SAN SALVADOR, SALVADOR.
One of the most beautiful of palms, scientifically known as the *Roystonea regia*,
a native of Cuba.

An almost prohibitive duty on imports of lumber and manufactures thereof has caused the local demand for furniture to be met by native supply and great skill has been acquired in the manufacture of household articles, the native woods furnishing great variety of grain and color. During 1907 a surtax was placed on raw materials for the



THE IZALCO VOLCANO NEAR SAN SALVADOR, SALVADOR.

This volcano is almost continuously active. In 1798 it rose out of the plain and gradually attained an elevation of about 6,000 feet. It is sometimes called the "Safety valve of Salvador," also the "Light-house of Salvador."

manufacture of soap, candles, and matches so that a development of these industries may be expected from native materials.

RAILROADS, POSTS, AND TELEGRAPHS.

The contract entered into with the Pan-American Railway Company for the construction of the first section of the line starting from La Union and terminating at San Miguel was canceled by a decree of

July 23, the reason for this action being the nonacceptance of the amendments authorized by the National Assembly. Connection with the Guatemalan frontier is to be made by a road from Santa Ana and from the frontier a branch line will run to Puerto Barrios.

In spite of several economies introduced in the telegraph and telephone service, the general movement was satisfactory, the total revenues from this source amounting to \$63,621 against \$61,896 in 1906, while expenditures were \$55,092 against \$61,874 in the preceding year.

The parcels-post service shows a total valuation in the first six months of the year of \$25,000, the figures for the whole of the previous year having been approximately \$45,000. This service has shown a steady advancement since 1901.

PUBLIC INSTRUCTION.

Educational measures are a subject of preferential attention on the part of the Government and a modification in the system of primary instruction is being effected, it being proposed to establish several high schools throughout the country. A school of agriculture equipped with all necessary elements was inaugurated during the year. Mixed primary schools in the country number 132 with a total number of registered pupils amounting to 34,752. Expenditures for 1907 under this head were nearly \$400,000 and in addition there are many private institutions where primary instruction only is given. Academic teaching is in the charge of the National University of San Salvador, embracing schools of law, medicine, pharmacy, dentistry, civil engineering, etc.

A new land law promulgated on May 13, 1907, provides satisfactory treatment for intending immigrants.



Uneventful progress was the leading characteristic of Uruguay's development during 1907. Early in the year the Presidential office was transferred from SEÑOR BATLLE Y ORDOÑEZ to DR. CLAUDIO WILLIMAN, who had served the preceding administration as Minister of Government. Doctor WILLIMAN's election was made by popular vote and carried out in perfect accord with the spirit of the Constitution of the country.

An important feature of the year's administration of internal affairs was the creation of a Ministry of Industries, Instruction and Labor, and a Ministry of Public Works, the two being created out of the former Ministry of Fomento, as conducive to a more efficient handling of the public business. Insurance legislation was enacted, port and customs regulations investigated, and progress made on public works, as provided for in the budget estimates. Steady growth is reported in the building of roads, bridges, and tramways, and railroad extension was made on the Central Uruguay Eastern, and a short but important line contracted for between Alcorta Station and the port of Fray Bentos, where the great meat factory of the Liebig Company is situated. Consideration was given to the purpose of building a railway into the interior in an almost direct line north and south for a distance of 360 miles.

The present administration inaugurated the Third Latin-American Medical Congress, which was held at Montevideo in March.

In response to invitations sent by the respective governments, the Republic was represented at the international congress against intemperance in Stockholm; the congress on hunt and fisheries at Antwerp; the one on hygiene and demography at Berlin, the resolutions of which are being considered by the proper department, and also at the sanitary conference which was held at the City of Mexico. Besides, the Government will send delegates to the South American Railroad Congress to be held in Buenos Aires on April 1, 1910, when the centennial of Argentine independence will be celebrated, and the appointment was made of the delegate to represent the country at the telegraph congress at Lisbon in April, 1908.

After having been approved by the National Assembly, the Executive power ratified the postal agreements which were signed by the delegates of the Republic at the Postal Congress of Rome, whereby the postal convention of Washington, made in 1897, is modified and extended.

FINANCE.

Notwithstanding the disturbance in the monetary markets of the world in 1907, the receipts of the Uruguayan Treasury continuously increased, which is a practical proof of the vitality of the economical organization of the country.

The financial situation clearly indicates that the welfare, prosperity, and progress of the country are more evident from year to year under the safeguard of a solid and permanent peace. The budget for 1907-8 provides for expenditures aggregating \$20,257,462 and an estimated revenue of \$20,301,737, leaving a surplus of \$44,275. Increased expenditures of practically \$1,000,000 are made, mainly through new or extended services, pensions, or augmented salaries.

A Treasury surplus of at least \$1,800,000 is anticipated for the close of the fiscal year on June 30, 1908.

The financial year 1906-7, ending on June 30, 1907, showed a Treasury surplus for the Republic of \$2,149,984, as compared with \$453,110 in the preceding year, thus establishing a record of prosperity for the country. The total revenue for the twelve months aggregated \$26,159,411, an increase of nearly \$6,000,000 over the fiscal year 1906. Of the recorded surplus \$1,000,000 was applied to increasing the capital of the Bank of the Republic, with the special object of enabling it to



MONTEVIDEO. LIBERTY SQUARE IN 1907.

Montevideo, the capital of the (Oriental) Republic of Uruguay, is a city of 300,000 inhabitants. It lies practically at the junction of the River Plate (La Plata) with the Atlantic Ocean, and is one of the chief commercial ports on the eastern seaboard. The name (*I see the mount*) was given by the English. Numerous public squares add to the natural attractions.

augment its note issue, and the greater part of the remainder was expended on various public works and services, under the head of "extraordinary" expenditures.

The debt service of the country has been promptly met and local disbursements made with the strictest punctuality. The total amount of the public debt of the country was \$128,137,918 on December 31, 1907, as against \$127,275,933 twelve months previous, classified as follows: Internal, \$8,878,942; foreign, \$116,507,075; international, \$2,752,900.

Customs receipts during the calendar year 1907 aggregated \$13,195,210, as compared with \$12,863,597 in the preceding year, a total net increase of \$331,612.

It is worthy of note that the increased revenue is attributable to import duties, \$11,852,041 being assigned to this branch of trade, against \$11,395,656 in the preceding year. On the other hand, export duties declined from \$1,467,941 to \$1,343,168. It would thus appear that while the country imports more foreign merchandise than previously, this condition has not been accompanied by an increased sale of its products abroad.

The above statement of customs revenues does not include the special additional duties assigned to the port-works fund, and which probably amounted to \$1,200,000.

Owing to the labors of the reassessing committee in the capital, the property tax in the last six months of the year showed an increase of \$79,459. The stamp tax for the year increased by \$25,000 and the legacy duties by \$173,464.

The balance sheet of the Bank of the Republic in Montevideo for 1907 shows that the profits for the year amounted to \$728,242, as against \$448,672 for 1906. As the Government is the only shareholder, it receives 80 per cent of the profits, equivalent to \$592,594. The interest on the loan raised for the bank's capital requires a yearly service of \$470,000.

COMMERCE.

In a general estimate of the foreign trade of the Republic the figures for 1907 are placed at \$69,576,143, representing an increase over the preceding year, when it amounted to \$67,856,939, of \$1,719,204.

The imports were valued at \$34,425,205, against \$34,454,915 in 1906, and exports for the same periods were \$35,150,937 and \$33,402,024, respectively.

Of the country's imports in 1907, those of United States origin were valued at \$3,971,001, or 11.5 per cent of the whole, against 9.2 per cent in the preceding year, while out of the total exports the United States took \$2,902,085, or 8.5 per cent, against 7.3 per cent in 1906.

Of the countries to the north, Great Britain, France, Germany, and Belgium have the bulk of the Republic's foreign commerce, while the United States and Italy take a secondary position.

The principal articles of import in 1907 were raw and manufactured materials, dry goods, foodstuffs, beverages, live stock, and tobacco. The exports consisted of animal products, live stock, agricultural products, minerals, and other products.

The exports of wool for the season of 1907 totaled 74,630 bales, as compared with 75,792 bales in 1906, the principal destinations being Dunkirk, 19,973 bales; Antwerp, 15,457 bales; Hamburg, 13,651 bales.

Breeding stock was introduced through the port of the capital from England, France, Switzerland, United States, Germany, New Zealand, Spain, Italy, and the Argentine Republic, as follows: Cattle, 540; sheep, 2,282; horses, 181.

INDUSTRIES.

The agricultural year 1906-7 shows cultivated areas of wheat, 625,600 acres; maize, 525,300; flax, 58,700; oats, 339,500; barley, 4,700;



LIVE STOCK EXPOSITION AT MONTEVIDEO, URUGUAY.

Cattle raising is one of the leading industries of the country. In 1906 the Republic exported 175,536 head of cattle.

canary seed, 6,370, the production being, in tons, wheat, 186,884; flax, 21,931; oats, 1,752; barley, 1,576; canary seed, 1,638; and maize, 136,136.

During the year the French Mining Company at Cuiñapiru treated 18,028 metric tons of ore, from which gold to the amount of 117.917 kilograms was obtained. The proceeds from gold sales were \$51,883.48, and the taxes paid amounted to \$259.41.

The main value of the ore treated was $6\frac{1}{2}$ grams per ton, equal to 4 pennyweights 4.308 grains. The most productive mines are the San Gregorio and the Ernestinita in Corrales.

RAILWAYS.

The railway system of the Republic open for traffic has a length of 1,217 miles, all in British hands, and important extensions are in progress. There are 170 miles of tramway in operation; several of the street-car lines have installed electric power.

The total receipts of the railroads in 1906-7 amounted to \$4,298,157, an increase of \$491,407 over 1905-6, and expenditures were \$2,404,324, an increase of \$283,223 over the previous year. The net profits amounted to \$1,893,832 or an increase of \$208,184.

POSTS AND TELEGRAPHS.

The postal and telegraphic services continue to develop in a satisfactory manner, the receipts showing a surplus of \$137,280, in comparison with the expenses of the year, and of \$55,987 in comparison with the receipts of 1906.

The increase in the postal service represented 7,792,215 mail pieces, and all the pieces distributed amounted to 96,996,948. The number of money orders issued amounted to 41,645, valued at \$4,107,402.32. Forty-four new post-offices were established, thirteen of which are in the capital, and the remainder in other parts of the country.

The telegraph lines in operation have a total length of 4,916 miles, with 211 offices. Two telephone companies have 11,114 miles of wire and 38 public offices. There were sent 230,780 telegrams, or an increase of 39,082 over 1906, the receipts amounting to \$99,723.40.

The considerable increase in the receipts of the telegraph service is due, in a great measure, undoubtedly to the acquisition by the Government of the lines called "Platino Brasileiro."

POPULATION AND PUBLIC WORKS.

At the opening of the year 1907 the population of the Republic was 1,103,040, of which 308,434 were resident in the city of Montevideo.

The sanitary condition of the country continued satisfactory. The sanitary inspection which was recently established commenced its work by visiting all the Departments and by putting itself in direct communication with the local councils. At the request of the Government the board of health has under consideration some rules and regulations for the control of the mutual relief societies and other rules and regulations for hospitals and sanitariums.

The works at the port of Montevideo are progressing, though slowly, and navigation is becoming easier every day. The canal which furnishes the entrance to the outer harbor has been dredged to a depth of $7\frac{1}{2}$ meters in an extent of over 2,000 meters. The outer

harbor has also the same depth of $7\frac{1}{2}$ meters in a great extent, and most of the vessels which at present arrive at said port may easily carry on their loading and unloading operations.

Among the provisions of the tax law for 1908, as submitted by the legislature to the Government and practically sanctioned, is a clause whereby the tax on the premiums of foreign insurance companies in the Republic is raised from 3 to 7 per cent. Both domestic and foreign companies are required to deposit guarantees for considerable amounts.

A commission charged with the revision of the mining code of the Republic has been appointed. The specified task of the commission is to propose such reforms as may be deemed necessary as regards the



THE CATHEDRAL MONTEVIDEO, URUGUAY.

An imposing structure, with towers rising 133 feet above level of pavement and overlooking the beautiful and historic square "Plaza de la Constitución." It was dedicated in 1806.

mode of acquiring property in mines, the regulation of prospecting, conditions to which mining concessions should be subject, rights of discoverers, conditions and effects of registration, obligations and rights of the registrar and the denouncer, abandonment and loss of mines, and all steps necessary for the regulation of mining property and concessions.

The mining industry of the country, though believed to be capable of vast development, has never yet been worked on an important scale, and it is believed that many of the obstacles to development may be removed by the establishment of a satisfactory and comprehensive legal code.

Notable action of the Government, which is attracting world-wide attention, is the abolition of the death penalty. The workings of the new law will be watched everywhere by students of sociology and penology.

A bill has been introduced in the Chamber of Representatives providing for the establishment of a free zone on the fiscal lands reclaimed from the sea in the eastern part of the Bay of Montevideo. The merchandise introduced and articles made in this zone are to be free of customs duties unless they are destined to importation into the interior of the country, in which case they must pass the customs authorities as if coming directly from abroad. The advocates of the bill consider that its passage will make Montevideo take front rank among South American ports. It is through Montevideo that the bulk of the commerce of the Republic passes, 82.32 per cent, or \$57,268,967 out of a total of \$69,576,143, being credited to it.

An exposition of national industries and the sessions of the International Congress of American Students were among events of interest in the capital during the early months of 1908.

PUBLIC INSTRUCTION.

Primary instruction is compulsory in the Republic. In 1906 there were 908 primary schools, of which 619 were public and 289 private, with 1,902 teachers, 1,218 public and 684 private, and 74,870 enrolled pupils, 57,638 in the public and 17,242 in the private schools. In 1907 it was provided that 150 additional public schools should be supplied. In 1906 the maintenance of primary instruction cost \$827,818 and the amount spent on the schools was \$757,793.

There is at Montevideo a university, with faculties of law, social sciences, medicine, mathematics, commerce, agriculture, and veterinary science, and an institute of experimental hygiene is attached to the faculty of medicine, also a preparatory school and other establishments for secondary and higher instruction with 2,591 pupils. There are normal schools for males and females, and a school of arts and trades supported by the State, where 185 pupils receive instruction gratuitously. At the military college, with 8 professors, there are 46 pupils. Religious seminaries are numerous throughout the Republic with a considerable number of pupils.



VENEZUELA

Gen. CIPRIANO CASTRO continued as Chief Executive of Venezuela during 1907, and under his administration the settlement of the claims of Great Britain, Germany, and Italy against the Government in execution of the protocols signed at Washington in February, 1903, was accomplished by the payment of the July quota of 30 per cent of the customs receipts from the ports of La Guaira and Puerto Cabello. The amounts fixed by the commission of awards as due the nations aggregated 17,935,150.19 *bolivares* (approximately \$3,500,000.)

The sanitary convention signed at Washington in October, 1905, was ratified by the Government, and the postal convention of Rome was promulgated. A new customs tariff became effective in January, 1908, and certain measures for the regulation of the tobacco and match industries were enacted.

The revenues and expenditures of the Venezuelan Government in 1906 were approximately \$10,000,000, being somewhat less than those recorded for the previous year. Customs and transit taxes amounted to \$5,000,000.

COMMERCE.

The total foreign trade for the fiscal year 1906-7 was represented by \$26,540,905, of which imports were worth \$10,335,817 and exports \$16,203,972.

In the total imports the United States figured for \$2,626,471, or 25.5 per cent of the whole, as compared with 30.2 per cent in 1905-6, while of the total exports, \$5,960,095, or 36.7 per cent, were sent to that country, against 31.1 per cent in the preceding year.

Other countries figuring on the import list were: Great Britain, \$3,927,410; Germany, \$2,049,230, and Holland, \$954,512, while shipments were made of merchandise to France, \$4,073,395; Holland, \$1,925,453; Cuba, \$1,046,852; Great Britain, \$1,001,376, and Germany, \$584,266.

In the fiscal year 1906-7 coffee exports from the Republic amounted to 98,992,832 pounds, valued at \$7,593,275; cacao, which ranked next in value, to 26,303,061 pounds, worth \$2,864,773; and balata rubber, 3,441,476 pounds, for \$1,190,494.

The United States took nearly \$4,000,000 worth of coffee, this item forming the bulk of Venezuelan shipments to that country,



BIRD'S-EYE VIEW OF CENTRAL PART OF MARACAIBO, VENEZUELA.

The city was founded in 1529, and is one of the most important ports of the Republic. It is situated on the western shore of Lake Maracaibo, about 22 miles from the sea. The Indians in the vicinity live in huts built on piles in the lake, which gave the name of Venezuela, or Little Venice, to the country.

while France received cacao valued at \$1,800,000, or more than one-half the total shipped. The last half of the year was marked by a great advance in the shipments of coffee to France, values advancing from \$167,136 to \$981,222 for the six months. A marked decrease is to be noted in regard to the shipments of cattle to Cuba, while exports of cacao to Germany greatly advanced.

In the half year from July to December, 1907, imports at the custom-houses of the Republic are quoted as nearly \$6,000,000, one-third of which was furnished by Great Britain and nearly the same amount, or \$1,816,000, by the United States, followed by Germany, Holland, and Spain in the order named. On these imports customs duties to the amount of \$2,092,000 were collected.

Export values for the same period were over \$7,000,000, the United States taking by far the larger share, or \$2,453,000 worth of merchandise, followed by France with \$2,000,000; Great Britain, \$825,154; Cuba, \$477,059; Germany, \$423,467, and Spain, \$265,000.

The coasting trade for the half year is represented by over \$5,000,000 for imports and \$6,000,000 for exports.

The quantities and values of the five leading articles of export shipped during the half year were: Coffee, 31,511,400 pounds, \$2,346,305; cacao, 12,051,512 pounds, \$1,741,573; balata rubber, 1,885,987 pounds, \$615,149; cattle 12,752,032 head, worth \$592,142, and hides, worth \$586,138.

The bulk of the coffee, or 22,425,308 pounds, valued at \$1,675,000, went to the United States, while France took the greater part of the cacao, or 6,669,989 pounds, valued at \$1,086,629. The latter country also received the greater proportion of the rubber sent abroad, or 969,168 pounds, valued at \$319,666.

The largest single item of import was wheat received from the United States, the value of which was over \$500,000.

Exports of balata rubber from Ciudad Bolivar are reported as having reached the highest total ever known in 1907, total shipments of all kinds being valued at \$1,480,000, as compared with \$1,117,000 in 1906, the bulk of the item being of the balata species.

PRODUCTION.

The surface of Venezuela is divided naturally into three distinct zones, the agricultural, pastoral, and forest. In the first are grown sugar cane, coffee, cacao, cereals, etc.; the second affords runs for cattle, and in the third such tropical products as rubber, tonga beans, copaiba, and vanilla abound. The area under coffee is estimated at about 200,000 acres, the number of estates being over 33,000. Cacao growers operate 5,000 estates and sugar planters about 11,000.

There are immense possibilities in the exploitation of the national forests of the Orinoco delta, as few areas so accessible to commer-



A SECTION OF THE IMATACA IRON REGION ON THE LOWER ORINOCO, VENEZUELA.

Contains an almost inexhaustible quantity of magnetic Bessemer ore, assaying 80 per cent of pure metal, exposed to view and accessible by water transport.

cial routes have greater wealth of timber land than these regions. A contract has been approved by the Venezuelan Government for the exploitation of these reserves and for the exportation of the timber products, while the rubber concessions covering the Rio Negro and El Canra sections specially stipulate against the willful destruction of the forest trees.

The live stock of the country is estimated at 2,004,257 oxen, 176,668 sheep, 1,667,272 goats, 191,079 horses, 89,186 mules, 312,810 asses, and 1,618,214 pigs. In the agricultural and cattle industries about 60,000 laborers are employed. Cattle exportation is encouraged as a source of national revenue, and the contract for such exportation previously held by a private company has been rescinded by decree of July 31, 1907.

Venezuela is rich in metals and minerals. Gold is found chiefly in the Yumari territory, and silver mines are located in the States of Bermudez, Lara, and Los Andes. Copper, silver, and iron are abundant, while sulphur, coal, asphalt, lead, kaolin, and tin are found. The copper mines at Aroa on the Bolivar Railway are being reopened, and coal is worked in Falcon State, the amount extracted in 1906 being 14,064 tons. Iron mines at Imataca, on the Lower Orinoco, are in the hands of an American company, and salt mines in various States have been leased by the Government at a yearly rent of \$700,000. The petroleum in the State of Tachira is as yet unexploited through lack of capital. Asphalt is exported to the United States in large quantities.

Pearl fishing, which is a Government monopoly, is carried on near the island of Margarita and neighboring islets of the north coast, the value exported in 1905-6 being \$170,000.

The railway revenues in 1906 aggregated approximately \$1,796,725, and certain extensions were contracted for in 1907. The navigations of rivers and the establishing of lines of steamers for inland transport were also provided for, while other enterprises conducing to the industrial progress of the country were the establishment of cold-storage plants, the manufacture of roman cement, and the establishment of a porcelain factory for the development of local deposits.



UNITED STATES

TRADE BETWEEN LATIN AMERICA AND THE UNITED STATES.

Following is the latest statement, from figures compiled by the Bureau of Statistics, United States Department of Commerce and Labor, showing the value of the trade between the United States and the Latin-American countries. The report is for the month of May, 1908, with a comparative statement for the corresponding month of the previous year; also for the eleven months ending May, 1908, as compared with the same period of the preceding year. It should be explained that the figures from the various custom-houses showing imports and exports for any one month are not received until about the 20th of the following month, and some time is necessarily consumed in compilation and printing, so that the returns for May, for example, are not published until some time in July.

IMPORTS OF MERCHANDISE.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Cocoa (<i>Cacao; cacao; cacao</i>):				
Central America.....	\$2,439	\$8,971	\$45,517	\$39,682
Brazil.....	285,312	154,112	2,622,354	2,610,172
Other South America.....	222,774	269,945	1,707,278	2,118,987
Coffee (<i>Cafe; café; café</i>):				
Central America.....	888,928	440,273	6,639,425	4,205,875
Mexico.....	248,353	587,692	1,496,267	3,001,611
Brazil.....	3,643,700	2,722,258	54,393,819	44,351,210
Other South America.....	807,888	652,190	8,583,348	8,248,489
Copper (<i>Cobre; cobre; cuivre</i>):				
Ore (<i>Mineral; minerio; mineral</i>)—				
Mexico.....	515,091	105,627	4,078,924	2,475,112
South America.....	135,745	1,055	967,468	1,434,394
Pigs, bars, etc. (<i>lingotes, barras, etc.; en lingados barras, etc.; en lingots saumons, etc.</i>)—				
Mexico.....	1,480,793	268,785	13,776,212	6,928,891
Cuba.....	16,002	3,934	113,008	63,871
Peru.....	262,647	100,707	1,563,351	3,826,516
Other South America.....	245,361	5,052	2,131,936	854,024
Cotton, unmanufactured (<i>algodón en rama; algodón en rama; cotton nonmanufacturé</i>):				
South America.....	41,320	17,838	603,817	408,005
Fibers (<i>Fibras; fibras; fibres</i>):				
Yield of Tampico fiber (<i>Itle; ittle; ittle</i>)—				
Mexico.....	109,760	70,236	1,262,405	858,514
Sisal grass (<i>Henequen; henequen; henequen</i>):				
Mexico.....	1,204,586	1,036,639	13,668,263	12,000,069
Fruits (<i>Frutas; frutas; fruits</i>):				
Bananas (<i>Plátanos; bananas; bananes</i>)—				
Central America.....	623,180	602,998	4,762,655	5,342,320
Cuba.....	219,104	154,878	1,622,362	652,556
South America.....	1,894	61,513	141,755	418,607
Oranges (<i>Naranjos; naranjos; oranges</i>)				
Mexico.....	2,806	1,365	44,615	56,510
Cuba.....		321	7,983	4,329
Furs and skins (<i>Pieltes finas; peiles finas; peaux</i>):				
South America.....	6,964		296,688	130,978

TRADE BETWEEN LATIN AMERICA AND UNITED STATES. 225

IMPORTS OF MERCHANDISE -Continued.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Goatskins (<i>Pielés de cabra; pelles de cabra; peaux de chèvres</i>):				
Mexico.....	\$129,280	\$151,710	\$2,731,859	\$1,823,954
Brazil.....	129,220	190,866	1,530,670	1,392,095
Other South America.....	243,143	105,286	2,054,536	947,779
Hides of cattle (<i>Cueros vacunos; couros de gado; cuirs de bétail</i>):				
Mexico.....	140,880	83,989	1,630,478	916,532
Cuba.....	40,347	13,529	300,394	98,051
Brazil.....	12,606	.....	231,916	81,264
Other South America.....	835,762	366,176	8,259,887	5,192,264
India rubber, crude (<i>Goma cruda; borracha cruda; caoutchouc</i>):				
Central America.....	79,431	14,608	734,154	526,892
Mexico.....	304,660	205,966	2,487,648	3,236,856
Brazil.....	2,393,000	2,108,732	31,268,152	17,518,301
Other South America.....	72,132	26,528	1,233,267	946,823
Iron ore (<i>Mineral de hierro; minerio de ferro; minéral de fer</i>)—				
Cuba.....	226,845	130,816	1,968,771	2,167,049
Lead ore (<i>Mineral de plomo; minerio de chumbo; minéral de plomb</i>):				
Mexico.....	253,422	380,138	2,386,375	3,657,677
Sugar, not above No. 16 Dutch standard (<i>Azúcar inferior al No. 16 del modelo holandés; assucar não superior ao No. 16 de padrão holandês; pas au-dessus du type hollandais No. 16</i>):				
Mexico.....	27,448	1,116	194,396	887,500
Cuba.....	9,414,610	10,165,700	60,122,320	53,927,616
Brazil.....	.....	12,806	912,381	12,806
Other South America.....	21,419	62,817	1,948,564	601,529
Tobacco (<i>Tabaco; fumo; tabac</i>):				
Leaf (<i>En rama; em rama; non manufacturée</i>):				
Cuba.....	801,965	1,025,563	12,762,091	11,940,833
Cuba.....	187,090	256,154	3,835,574	3,910,501
Wood, mahogany (<i>Caoba; mogno; acajou</i>):				
Central America.....	53,735	45,374	451,388	606,175
Mexico.....	91,564	32,579	617,643	581,564
Cuba.....	27,520	1,720	178,149	146,058
Wool (<i>Lana; la; laine</i>):				
South America				
Class 1 (clothing).....	709,257	408,375	4,773,086	2,229,477
Class 2 (combing).....	28,067	.....	440,964	397,053
Class 3 (carpet).....	117,370	44	692,793	118,331

EXPORTS OF MERCHANDISE.

Agricultural implements (<i>Herramientas agrícolas; instrumentos de agricultura; instruments agricoles</i>):				
Mexico.....	57,746	27,609	451,335	414,393
Cuba.....	15,163	20,826	80,322	124,365
Argentine Republic.....	111,556	406,235	3,534,636	3,614,947
Brazil.....	4,680	16,763	110,880	315,016
Chile.....	49,134	882	394,053	328,579
Other South America.....	12,094	25,770	204,135	257,450
Animals (<i>Animales; animas; animaux</i>):				
Cattle (<i>Ganado vacuno; gado; bétail</i>)—				
Mexico.....	60,510	36,266	777,621	672,145
Cuba.....	28,218	6,365	383,945	140,801
South America.....	7,044	1,182	55,036	42,554
Hogs (<i>Cerdos; porcos; porcs</i>)—				
Mexico.....	12,167	4,513	184,127	174,655
South America.....	289	59	1,571	7,923
Horses (<i>Caballos; cavallos; chevaux</i>)—				
Mexico.....	20,421	11,375	401,893	132,413
Sheep (<i>Ovejas; ovelhas; brebis</i>)—				
Mexico.....	770	10,728	78,888	56,937
Books, maps, etc. (<i>Libros, mapas, etc.; livres, mapas, etc.; livres, mappes, etc.</i>):				
Central America.....	5,228	11,851	50,489	81,308
Mexico.....	20,275	14,494	271,425	285,587
Cuba.....	11,781	24,954	283,441	267,115
Argentine Republic.....	10,149	12,479	87,444	80,300
Brazil.....	12,353	15,780	93,388	244,164
Chile.....	826	3,570	230,682	113,442
Other South America.....	22,983	18,246	121,504	136,168

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EXPORTS OF MERCHANDISE—Continued.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Breadstuffs (<i>Cereales; cereas; céréales</i>):				
Corn (<i>Maiz; milho; maïs</i>)—				
Central America.....				
Mexico.....	\$4,069	\$4,049	\$35,539	\$68,093
Cuba.....	122,583	8,586	1,065,183	478,070
South America.....	200,805	83,795	1,385,645	1,120,711
Oats (<i>Avena; avca; avoine</i>)—	450	5,540	8,770	30,552
Central America.....	5,915	11,663	29,742	63,024
Mexico.....	7,433	1,445	52,113	25,958
Cuba.....	21,460	2,748	309,834	177,588
South America.....	299	502	10,765	9,684
Wheat (<i>Trigo; trigo; blé</i>)—				
Central America.....	3,000		31,003	16,443
Mexico.....	392,097	11,647	1,430,196	98,685
South America.....	11,637	8,471	370,736	750,647
Wheat flour (<i>Harina de trigo; farinha de trigo; farine de blé</i>)—				
Central America.....	124,263	155,308	1,544,375	1,730,334
Mexico.....	9,317	7,009	127,058	142,782
Cuba.....	305,823	239,005	2,826,705	3,278,340
Brazil.....	102,242	118,632	1,230,684	1,510,894
Colombia.....	17,118	14,104	151,229	180,299
Other South America.....	89,263	188,874	1,712,588	1,645,270
Cars, carriages, etc. (<i>Carros, carruajes y otros vehicu- los; carros, carruagens, etc.; wagons, voitures, etc.</i>):				
Automobiles (<i>Automóviles; automoriles; automo- biles</i>)—				
Mexico.....	69,998	39,908	762,650	379,126
South America.....	14,300	21,534	184,570	213,733
Cars, passenger and freight (<i>Wagons para pasaje y carga; carros de pasajeros e carga; wagons a vояжadores et de marchandises</i>)—				
Central America.....	38,593	233,374	1,583,476	1,245,071
Mexico.....	137,816	81,739	2,107,265	1,269,805
Cuba.....	43,867	4,962	723,506	627,069
Argentine Republic.....	49,013	67,155	1,891,026	1,086,868
Chile.....			146,267	667,055
Other South America.....	20,788	49,940	619,422	1,044,554
Cycles and parts of (<i>Bicicletas y accesorios; bicyclos e partes; bicyclettes et leurs parties</i>)—				
Mexico.....	4,541	10,113	83,743	91,498
Cuba.....	5,208	4,252	35,803	40,302
Argentine Republic.....	2,022	280	18,225	12,819
Brazil.....	816	21	11,000	6,705
Other South America.....	575	1,064	17,804	14,718
Clocks and watches (<i>Relojes de pared y bolsillo; relo- gios de pared e de bolso; horloges et montres</i>):				
Central America.....	1,864	1,728	16,571	19,453
Mexico.....	7,165	1,820	49,510	43,783
Argentine Republic.....	2,894	7,917	68,893	88,648
Brazil.....	7,965	5,630	87,145	106,167
Chile.....	5,435	1,317	46,732	40,927
Other South America.....	3,750	2,785	38,272	41,180
Coal (<i>Carbón; carvão; charbon</i>):				
Anthracite (<i>Antracita; anthracite; anthracite</i>)—				
Mexico.....	1,483	1,920	8,436	20,851
Cuba.....	10,650	21,120	96,409	154,534
Bituminous (<i>Bituminoso; bituminox; bitumineux</i>)				
Mexico.....	283,390	136,040	2,989,804	2,547,056
Copper (<i>Cobre; cobre; cuivre</i>):				
Ore (<i>Mineral; minerio; minerai</i>)—				
Mexico.....	190,198	2,457	984,334	958,952
Ingots, bars, etc. (<i>Lingotes, barras, etc.; en lingua- dos, barras, etc.; en lingots, saumons, etc.</i>)—				
Mexico.....		720	36,982	36,653
Cotton (<i>Algodón; algodão; coton</i>):				
Unmanufactured (<i>En rama; em rama; non manu- facturé</i>)—				
Mexico.....		5,912	36,413	282,812
Cloths (<i>Tejidos; fazendas; manufacturés</i>)—				
Central America.....	149,683	140,449	1,580,006	1,317,612
Mexico.....	25,709	9,550	238,892	171,736
Cuba.....	46,218	55,024	941,484	916,420
Argentine Republic.....	4,386	11,422	218,385	92,157
Brazil.....	31,578	9,101	400,615	277,968
Colombia.....	66,302	49,045	775,385	531,967
Venezuela.....	21,534	26,093	389,444	238,349
Other South America.....	28,340	41,396	485,829	468,976

EXPORTS OF MERCHANDISE—Continued.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Cotton—Continued.				
Wearing apparel (<i>Ropa; roupa; vêtements de coton</i>)—				
Central America.....	\$46,281	\$66,666	\$385,499	\$512,334
Mexico.....	36,986	19,044	284,907	388,202
Cuba.....	42,339	18,927	343,380	298,593
Other South America.....	8,411	4,534	95,810	106,876
Fibers (<i>Fibras; fibras; fibres</i>):				
Twine (<i>Bramante; barbante; ficelle</i>)—				
Argentine Republic.....	23,811	6,558	1,145,767	1,747,024
Other South America.....	10,925	12,901	228,948	243,828
Fish (<i>Pescado; peixe; poisson</i>):				
Salmon (<i>Salmón; salmão; saumon</i>)—				
Colombia.....	684	209	3,619	4,432
Other South America.....	6,350	5,307	352,267	396,309
Fruits and nuts (<i>Frutas y nueces; fructas e nozes; fruits e noix</i>):				
Central America.....	9,025	18,656	117,279	185,350
Mexico.....	12,962	7,069	247,653	208,170
Cuba.....	12,172	11,784	216,326	208,927
South America.....	6,740	9,790	141,468	153,320
Glucose and grape sugar (<i>Glucosas; glucoses; glucoses</i>):				
Argentine Republic.....	3,656	5,433	79,999	97,376
Other South America.....			10,632	9,094
Instruments and apparatus for scientific purposes (<i>Instrumentos y aparatos para fines científicos; instrumentos e aparelhos científicos; instruments et appareils scientifiques</i>):				
Electrical appliances, including telegraph and telephone instruments (<i>Aparatos eléctricos, incluso instrumentos telegráficos y telefónicos; aparelhos elétricos, incluindo instrumentos telegráficos e telefônicos; instruments électriques, y compris les appareils télégraphiques et téléphoniques</i>)—				
Central America.....	15,982	29,615	197,164	208,833
Mexico.....	84,548	43,869	820,631	575,958
Cuba.....	28,957	24,951	446,306	381,504
Argentine Republic.....	6,861	20,429	237,378	224,651
Brazil.....	50,725	69,738	691,024	1,118,056
Other South America.....	46,393	19,543	587,104	516,750
All other (<i>Otros instrumentos; todos os demais instrumentos; instruments divers</i>)—				
Central America.....	4,936	6,042	61,160	74,780
Mexico.....	45,518	18,428	413,544	214,307
Cuba.....	12,893	6,665	136,897	128,007
Argentine Republic.....	8,629	15,196	144,506	204,170
Brazil.....	8,135	13,757	67,238	115,113
Other South America.....	10,129	12,172	158,958	135,862
Iron and steel and manufactures of (<i>Hierro y acero y sus fabricaciones; ferro e aço e suas manufacturas; fer et acier et ses manufactures</i>)—				
Steel rails (<i>Rieles de acero; trilhos de aço; rails d'acier</i>)—				
Central America.....	7,799	14,502	369,367	735,854
Mexico.....	37,027	16,879	1,063,608	529,587
South America.....	120,669	32,808	2,726,126	1,263,426
Structural iron and steel (<i>Hierro y acero para construcción; ferro e aço para construção; fer et acier pour la construction</i>)—				
Mexico.....	62,162	54,607	784,599	718,076
Cuba.....	31,687	61,300	267,598	619,074
South America.....	62,708	18,505	506,166	940,956
Wire (<i>Alambre; aramo; fil de fer</i>)—				
Central America.....	11,434	25,300	188,714	234,405
Mexico.....	59,079	66,665	589,172	974,168
Cuba.....	22,413	37,929	378,979	545,054
Argentine Republic.....	25,749	98,598	1,218,125	1,372,562
Brazil.....	23,305	21,072	235,669	406,678
Other South America.....	51,356	13,396	467,753	588,948
Builders' hardware (<i>Materiales de construcción; ferragens; matériaux de construction en fer et acier</i>)—				
Central America.....	29,027	36,754	327,355	340,832
Mexico.....	106,742	88,099	1,024,435	918,833
Cuba.....	52,806	32,450	525,355	474,487
Argentine Republic.....	22,905	58,134	698,728	656,424
Brazil.....	30,303	30,020	453,708	567,329
Chile.....	16,617	1,402	287,248	274,192
Colombia.....	8,580	12,138	71,556	105,714
Venezuela.....	4,903	3,567	54,113	40,125
Other South America.....	25,939	23,757	307,175	371,993

EXPORTS OF MERCHANDISE—Continued.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Iron and steel and manufactures of—Continued.				
Electrical machinery (Maquinaria eléctrica; máquinas eléctricas; machines électriques)—				
Central America.....	89,429	\$5,270	\$65,915	\$117,990
Mexico.....	100,904	52,713	1,117,488	1,239,046
Cuba.....	4,914	1,808	88,914	81,250
Metal-working machinery (Maquinaria para labrar metales; maquinismos para trabajar en metal; machines pour travailler les métaux)—				
Mexico.....	4,883	14,735	76,344	95,990
South America.....	5,341	18,548	126,783	228,823
Sewing machines (Maquinas de coser; machines de coser; machines à coudre)—				
Central America.....	8,351	7,550	117,692	112,530
Mexico.....	49,088	27,070	722,847	633,110
Cuba.....	18,078	27,900	300,985	216,389
Argentine Republic.....	42,738	64,730	439,671	390,585
Brazil.....	31,798	13,918	403,746	402,170
Colombia.....	6,597	8,516	66,774	79,113
Other South America.....	13,951	26,454	340,657	438,398
Steam engines and parts of (Locomotoras y sus accesorios; locomotivas e accesorios; locomotifs et leurs parties)—				
Central America.....		9,500	1,115,672	101,980
Mexico.....	59,675	84,970	1,172,192	1,006,950
Cuba.....	22,450	10,710	756,270	582,283
Argentine Republic.....			407,453	169,315
Brazil.....			578,161	565,435
Other South America.....		74,733	639,304	1,031,384
Typewriting machines and parts of (Mecanógrafos y sus partes; machines d'écrire et accesorios; machine à écrire et leurs parties)—				
Central America.....	6,170	6,268	42,756	57,719
Mexico.....	24,528	32,695	341,072	307,298
Cuba.....	6,959	9,256	78,067	95,733
Argentine Republic.....	8,732	7,648	99,203	130,216
Brazil.....	3,497	19,705	56,084	108,635
Colombia.....	1,498	2,012	12,421	14,700
Other South America.....	13,668	7,244	180,487	175,071
Pipes and fittings (Cañería; tubos; tujaur)—				
Central America.....	38,227	65,353	523,425	545,504
Mexico.....	98,666	112,582	1,104,890	1,455,799
Cuba.....	81,831	76,294	563,869	974,204
Argentine Republic.....	4,535	2,521	97,394	154,526
Other South America.....	11,796	6,564	204,700	272,298
Leather and manufactures of (Cuero y sus fabricaciones; couro e suas manufacturas; cuir et ses manufactures)—				
Sole leather (Suela; sola; cuir pour semelles)—				
South America.....			629	474
Upper leather (Cuero de pala; couro de gaspa; cuirs pour tiges de chaussures)—				
Central America.....	18,872	22,164	202,678	254,255
Cuba.....	10,128	16,769	114,748	128,293
Argentine Republic.....	10,339	36,438	204,071	251,934
Brazil.....	11,736	10,730	123,372	148,890
Other South America.....	12,287	26,354	212,712	248,637
Boots and shoes (Calzado; calçado; chaussures)—				
Central America.....	78,486	70,227	558,024	674,675
Mexico.....	151,922	114,733	1,407,363	1,467,785
Colombia.....	3,560	6,278	57,312	56,853
Other South America.....	38,774	42,816	363,851	448,003
Meat and dairy products (Productos de la ganadería; productos animales e lacteinos; viandes e produtos de lacteries):				
Beef, canned (Carne de vaca en latas; carne de vacca en lates; bœuf conservé)—				
Central America.....	6,338	2,674	63,160	54,762
Mexico.....	2,236	839	25,185	13,635
Cuba.....	1,030	257	17,116	20,587
Other South America.....	2,134	2,652	36,331	33,514
Beef, salted or pickled (Carne de vaca, salada ó adobada; carne de vacca, salgada; bœuf salté)—				
Central America.....	14,046	11,213	130,401	148,740
South America.....	12,310	30,720	209,561	239,300
Tallow (Sebo; sebo; suif)—				
Central America.....	4,877	9,512	113,514	123,874
Mexico.....	136	1,984	20,375	52,228
Cuba.....	6,487	7,947	43,669	49,184
Chile.....			54,172	38,126
Other South America.....	4,110	3,580	48,229	44,467

EXPORTS OF MERCHANDISE—Continued.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Meat and dairy products—Continued.				
Bacon (<i>Tocino; toucinho; lard tunc</i>)—				
Central America.....	\$4,478	\$6,490	\$36,028	\$36,986
Mexico.....	4,634	5,440	57,205	49,480
Cuba.....	48,322	16,472	569,897	367,770
Brazil.....	13,260	11,612	172,142	192,516
Other South America.....	1,623	1,383	13,947	19,028
Hams (<i>Jamones; presuntos; jambons</i>)—				
Central America.....	10,958	13,892	131,112	164,043
Mexico.....	8,261	11,225	107,972	123,869
Cuba.....	45,385	41,103	548,205	537,380
Venezuela.....	3,409	2,787	40,732	39,342
Other South America.....	3,391	6,064	52,561	65,068
Pork (<i>Carne de puerco; carne de porco; porc</i>)—				
Cuba.....	50,292	54,346	664,634	717,042
South America.....	19,081	14,987	231,762	233,508
Lard (<i>Manteica; banha; saindoux</i>)—				
Central America.....	40,360	28,639	616,561	409,122
Mexico.....	49,517	67,150	625,683	868,229
Cuba.....	255,105	126,901	2,687,615	2,361,378
Brazil.....	81,078	17,435	1,086,802	757,159
Chile.....	2,783	306	148,483	122,165
Colombia.....	7,513	40,480	53,573	138,877
Venezuela.....	22,491	6,033	204,841	75,100
Other South America.....	72,000	44,872	518,756	555,882
Lard compounds (<i>Compuestos de manteica; compos- tos de banha; composees de saindoux</i>)—				
Mexico.....	39,452	40,794	645,080	437,253
Cuba.....	113,794	138,763	1,585,651	1,624,649
Oleomargarine (<i>Oleomargarina; oleomargarina; oleomargarine</i>)—				
Central America.....	4,410	3,717	34,013	42,568
Mexico.....	2,037	975	26,392	18,632
Butter (<i>Mantquilla; mateiga; beurre</i>)—				
Central America.....	15,379	21,717	156,951	185,580
Mexico.....	10,119	11,776	135,256	125,436
Cuba.....	4,758	3,831	65,587	35,390
Brazil.....	5,713	951	68,079	27,548
Venezuela.....	4,666	4,556	49,848	44,678
Other South America.....	986	6,387	45,774	47,312
Cheese (<i>Queso; quefo; fromage</i>)—				
Central America.....	6,098	8,036	75,226	74,806
Mexico.....	4,230	3,735	40,125	49,767
Cuba.....	3,709	1,842	23,593	23,282
Naval stores (<i>Provisiones navales; pertrechos navaes; fournitures navales</i>):				
Resin, tar, etc. (<i>Resina, alquitrán, etc.; resina, al- catrão, etc.; resine, goudron, etc.</i>)—				
Cuba.....	7,105	5,149	76,238	80,323
Argentine Republic.....	1,800	27,808	240,383	417,214
Brazil.....	16,010	50,854	555,462	634,845
Other South America.....	8,464	20,719	217,038	223,797
Turpentine (<i>Aguarrás; aquarras; terebenthine</i>)—				
Central America.....	3,264	6,829	33,292	35,408
Cuba.....	3,405	5,893	75,446	68,017
Argentine Republic.....	27,059	11,385	189,813	331,693
Brazil.....	13,985	7,606	139,883	124,760
Chile.....	567	.....	86,880	93,528
Other South America.....	2,927	2,640	65,619	74,709
Oils, mineral (<i>Aceites minerales; acites minerales; huiles minerales</i>):				
Crude (<i>Crudos; crus; brutes</i>)—				
Mexico.....	67,461	61,380	958,670	838,149
Cuba.....	250	24,902	431,625	489,874
Illuminating, refined (<i>Refinados para alumbrado; para iluminação; d'éclairage</i>)—				
Central America.....	17,005	24,000	237,855	317,092
Cuba.....	320	857	150,007	102,830
Argentine Republic.....	341,459	375,210	1,784,453	2,236,967
Brazil.....	143,005	156,363	2,350,969	2,511,816
Chile.....	12,042	30,800	553,974	605,708
Other South America.....	65,258	97,427	1,103,561	1,164,505
Lubricating, refined (<i>Refinados para la lubricación; para lubrificação; à graisser</i>)—				
Mexico.....	10,372	17,128	224,026	159,923
Cuba.....	19,663	15,281	334,634	248,347
Argentine Republic.....	30,624	44,533	389,439	452,117
Brazil.....	15,145	23,236	310,424	310,021
Chile.....	5,084	176	179,890	239,653

EXPORTS OF MERCHANDISE—Continued.

Articles and countries.	May—		Eleven months ending May—	
	1907.	1908.	1907.	1908.
Oils, vegetable (<i>Aceites vegetales; oleos vegetales; huiles vegetales</i>):				
Central America.....	\$10,035	\$9,079	\$53,502	\$55,155
Mexico.....	138,745	132,173	965,177	1,214,679
Cuba.....	25,407	7,949	238,383	145,715
Argentine Republic.....	3,748	29,422	61,776	201,869
Brazil.....	65,941	13,848	423,605	315,451
Chile.....	19,513		98,374	79,114
Other South America.....	9,560	23,470	159,310	211,451
Paper (<i>Papel; papel; papier</i>):				
Mexico.....	10,937	7,721	55,148	79,947
Cuba.....	21,492	28,095	186,273	248,934
Argentine Republic.....	11,134	18,223	244,708	153,226
Brazil.....		1,647	13,958	10,712
Chile.....	6,172	285	149,267	159,751
Other South America.....	4,645	8,016	85,417	97,908
Paraffin (<i>Parafina; paraffina; paraffine</i>):				
Central America.....	4,335	5,415	58,413	76,028
Mexico.....	7,630	51,893	535,930	545,110
South America.....	3,993	2,686	55,006	34,533
Tobacco (<i>Tabaco; fumo; tabac</i>):				
Unmanufactured (<i>En rama; en rama; non manufacturé</i>):				
Central America.....	6,017	6,355	50,549	54,926
Mexico.....	13,153	10,421	118,738	127,785
Argentine Republic.....	10,549	10,262	52,694	186,694
Colombia.....	1,325	3,418	14,193	16,023
Other South America.....	2,080	11,532	79,336	90,997
Manufactured (<i>Elaborado; manufacturado; manufacturé</i>):				
Central America.....	9,876	13,497	77,789	100,103
Wood unmanufactured (<i>Madera sin labrar; madeira não manufacturada; bois brut</i>):				
Central America.....	22,652	19,418	544,461	566,535
Mexico.....	75,817	70,530	1,214,695	1,393,906
Cuba.....	2,099		115,624	18,350
Argentine Republic.....	600		135,184	165,306
Other South America.....	1,026	1,585	279,089	27,139
Lumber (<i>Madera de construcción; madeira de construção; bois de construction</i>):				
Central America.....	130,987	77,139	1,170,958	1,322,734
Mexico.....	167,581	112,513	1,967,551	1,974,207
Cuba.....	190,887	184,762	2,192,960	1,738,078
Argentine Republic.....	296,901	210,597	5,479,526	3,402,469
Brazil.....	51,667	54,240	1,168,318	424,872
Chile.....	40,010		1,055,019	809,059
Other South America.....	97,492	79,901	1,270,496	1,325,875
Furniture (<i>Muebles; mobilia; meubles</i>):				
Central America.....	29,118	36,592	274,788	340,960
Mexico.....	75,380	40,805	848,360	884,069
Cuba.....	61,922	44,088	545,670	650,248
Argentine Republic.....	14,426	31,281	374,355	513,331
Brazil.....	5,360	16,986	65,701	122,765
Chile.....	7,938		70,257	79,466
Colombia.....	2,017	2,610	14,763	20,305
Venezuela.....	2,695	158	20,275	12,408
Other South America.....	8,651	8,179	116,559	145,082

VALUE OF LATIN-AMERICAN COINS.

The following table shows the value, in United States gold, of coins representing the monetary units of the Central and South American Republics and Mexico, estimated quarterly by the Director of the United States Mint, in pursuance of act of Congress:

ESTIMATE JULY 1, 1908.

Countries.	Standard.	Unit.	Value in U. S. gold or silver.	Coins.
ARGENTINE REPUBLIC.	Gold	Peso	.965	Gold—Argentine (\$4.824) and $\frac{1}{2}$ Argentine. Silver—Peso and divisions.
BOLIVIA	Silver	Boliviano	.393	
BRAZIL	Gold	Milreis	.546	Gold—5, 10, and 20 milreis. Silver— $\frac{1}{2}$, 1, and 2 milreis.
CENTRAL AMERICAN STATES—				
Costa Rica	Gold	Colon	.465	Gold—2, 5, 10, and 20 colons (\$9.307). Silver—5, 10, 25, and 50 centimos.
Guatemala	Silver	Peso	.393	
Honduras				
Nicaragua				
Salvador				
CHILE	Gold	Peso	.365	Gold—Escudo (\$1.825), doubloon (\$3.650), and condor (\$7.300). Silver—Peso and divisions.
COLOMBIA	Gold	Dollar	1.000	
ECUADOR	Gold	Sucre	.487	Gold—10 sucres (\$4.8665). Silver—Sucre and divisions.
HAITI	Gold	Gourde	.965	
MEXICO	Gold	Peso ^a	.498	Gold—5 and 10 pesos. Silver—Dollar ^b (or peso) and divisions.
PANAMA	Gold	Balboa	1.000	
PERU	Gold	Libra	4.866 $\frac{1}{2}$	Gold— $\frac{1}{2}$ and 1 libra. Silver—Sol and divisions.
URUGUAY	Gold	Peso	1.034	
VENEZUELA	Gold	Bolivar	.193	Gold—5, 10, 20, 50, and 100 bolivars. Silver—5 bolivars.

^a75 centigrams fine gold.

^bValue in Mexico, 0.498.

(b)

