

INTERNATIONAL UNION OF AMERICAN REPUBLICS

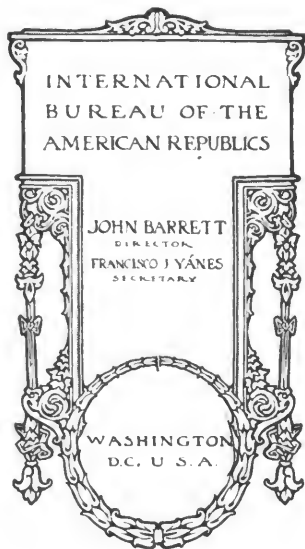
BULLETIN
OF THE INTERNATIONAL UNION OF THE
AMERICAN
REPUBLICS

NOVEMBER

1909



NO. 2 JACKSON PLACE, WASHINGTON, D. C., U. S. A.
CABLE ADDRESS *for* BUREAU *and* BULLETIN, "IBAR," WASHINGTON



SUBSCRIPTION RATES FOR THE BULLETIN

English Section, \$2 per year in all countries of the International Union; in other countries, \$2.50 per year. Single number, 25 cents.

Spanish-Portuguese-French Section, \$2 per year in all countries of the International Union; in other countries, \$2.50 per year. Single number, 25 cents.

Double number (Bulletin in English, Spanish, Portuguese, and French), \$3 per year in all countries of the International Union; in other countries, \$4. Single number, 40 cents.

**GOVERNING BOARD OF THE
INTERNATIONAL BUREAU OF
AMERICAN REPUBLICS**

PHILANDER C. KNOX, Secretary of State of the United States
Chairman ex officio.

AMBASSADORS EXTRAORDINARY AND PLENIPOTENTIARY.

Brazil.....Mr. JOAQUIM NABUCCO,
Office of Embassy, 20 Lafayette Square, Washington, D. C.
Mexico.....Señor Don FRANCISCO L. DE LA BARRA.^a

ENVOYS EXTRAORDINARY AND MINISTERS PLENIPOTENTIARY.

Argentine Republic...Señor Don EPIFANIO PORTELA,
Office of Legation, 1800 Massachusetts avenue, Washington, D. C.
Bolivia.....Señor Don IGNACIO CALDERÓN,
Office of Legation, 1633 Sixteenth street, Washington, D. C.
Chile.....Señor Don ANIBAL CRUZ,
Office of Legation, 1104 Vermont avenue, Washington, D. C.
Costa Rica.....Señor Don JOAQUÍN BERNARDO CALVO,
Office of Legation, 1329 Eighteenth street, Washington, D. C.
Cuba.....Señor Don CARLOS GARCÍA VÉLEZ,
Office of Legation, Union Trust Building, Washington, D. C.
Ecuador.....Señor Don LUIS FELIPE CARBO,^a
Office of Legation, 1614 I street, Washington, D. C.
Guatemala.....Señor Dr. LUIS TOLEDO HERRARTE,
Office of Legation, "The Highlands," Washington, D. C.
Haiti.....Mr. H. PAULÉUS SANNON,
Office of Legation, 1429 Rhode Island avenue, Washington, D. C.
Honduras.....Señor Dr. LUIS LAZO ARIAGA,
Office of Legation, 1830 Columbia Road, Washington, D. C.
Panama.....Señor Don C. C. AROSEMENA,
Office of Legation, "The Highlands," Washington, D. C.
Peru.....Señor Don FELIPE PARDO.^a
Salvador.....Señor Don FEDERICO MEJÍA,
Office of Legation, "The Portland," Washington, D. C.
Uruguay.....Señor Dr. LUIS MELIÁN LAFINUR.^a
Venezuela.....Señor Dr. PEDRO EZEQUIEL ROJAS,
Office of Legation, The New Willard, Washington, D. C.

CHARGÉS D'AFFAIRES AD INTERIM.

Dominican Republic...Señor Don ARTURO L. FIALLO,
Office of Legation, "The Burlington," Washington, D. C.
Mexico.....Señor Don BALBINO DÁVALOS,
Office of Embassy, 1415 I street, Washington, D. C.
Nicaragua.....Señor Don FELIPE RODRÍGUEZ,
Office of Legation, 2003 O street, Washington, D. C.
Peru.....Señor Don MANUEL DE FREYRE Y SANTANDER,
Office of Legation, 1737 H street, Washington, D. C.
Uruguay.....Señor Don ALBERTO NIN-FRIAS,
Office of Legation, 2117 California avenue, Washington, D. C.

[Panama and Colombia have at present no representatives on the Govern-
ing Board.]

^aAbsent.



UNITED STATES
REPRESENTATIVES IN THE
LATIN AMERICAN REPUBLICS

AMBASSADORS EXTRAORDINARY AND PLENIPOTENTIARY.

Brazil.....IRVING B. DUDLEY, Rio de Janeiro.
MexicoDAVID E. THOMPSON, Mexico.

ENVOYS EXTRAORDINARY AND MINISTERS PLENIPOTENTIARY.

Argentine Republic.....CHARLES H. SHERRILL, Buenos Aires.
Bolivia.....JAMES F. STUTESMAN, La Paz.
ChileTHOMAS C. DAWSON, Santiago.
ColombiaELLIOTT C. NORTHICOTT, Bogotá.
Costa Rica.....WILLIAM L. MERRY, San José.
CubaEDWIN V. MORGAN, Havana.
Ecuador.....WILLIAMS C. FOX, Quito.
GuatemalaWILLIAM F. SANDS, Guatemala City.
HaitiHENRY W. FURNISS, Port au Prince.
HondurasPHILIP M. BROWN, Tegucigalpa.
Nicaragua.....HORACE G. KNOWLES, Managua.
Panama.....HERBERT G. SQUIERS, PANAMA.
Paraguay.....(Same as Uruguay.)
Peru.....LESLIE COMBS, Lima.
SalvadorWILLIAM HEIMKE, San Salvador.
UruguayEDWARD C. O'BRIEN, Montevideo.
Venezuela.....WILLIAM W. RUSSELL, Caracas.

MINISTER RESIDENT AND CONSUL-GENERAL.

Dominican Republic.....FENTON R. MCCREERY, Santo Domingo.



TABLE OF CONTENTS

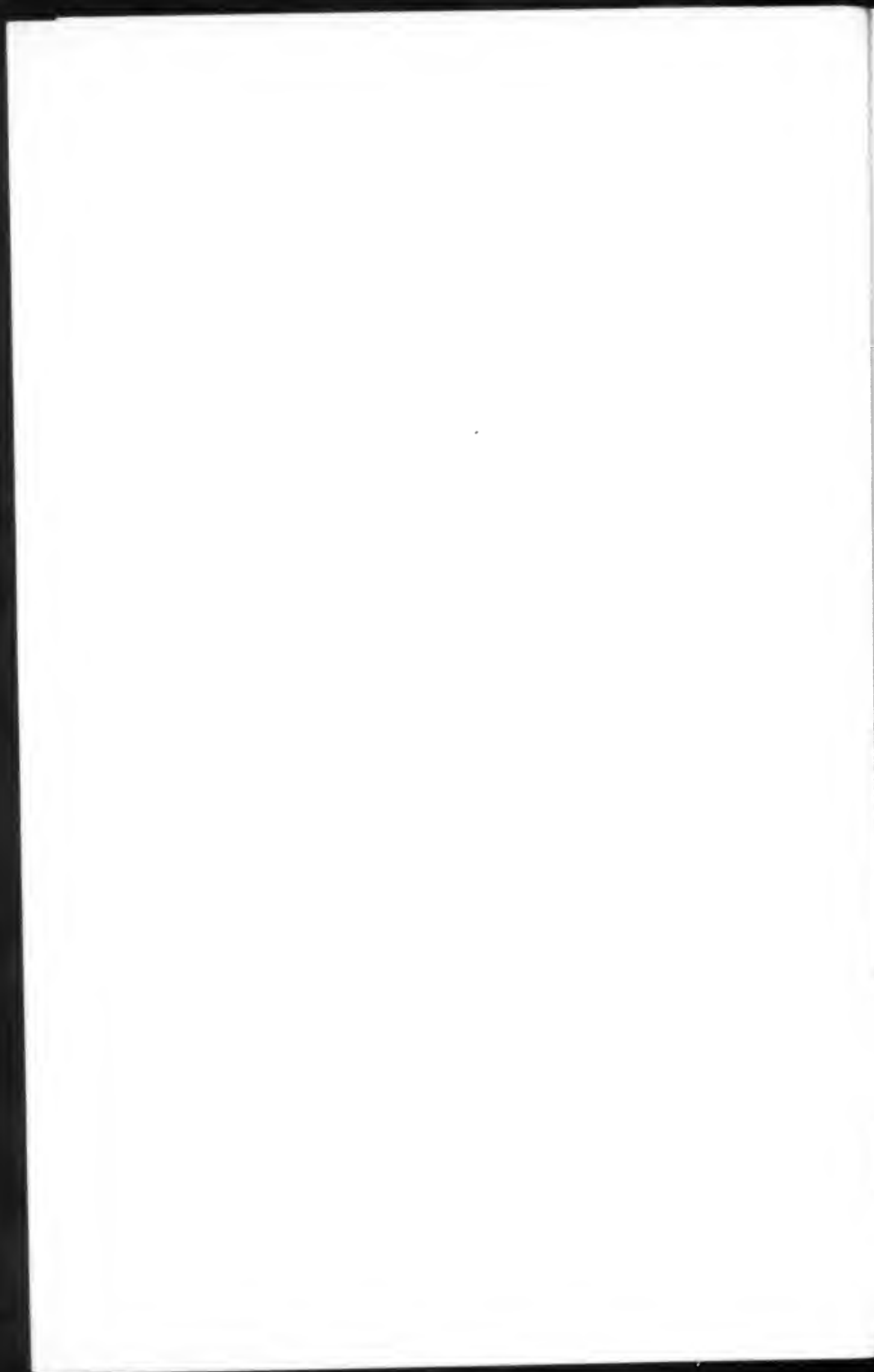
	Page.
Editorial Section	819
Tribute to William I. Buchanan—Death of Maj. Gen. Alfred E. Bates—Delegates to the Fourth Pan-American Conference—Pittsburg and Latin America—Consul-General of the United States at Guatemala City—New Bureau Building in the "Washington Guide"—A Pan-American Conference at San Antonio, Texas—Financial representatives of Honduras—Statue of George Washington in Buenos Aires—Consul-General of Honduras in New York—Special articles in the November BULLETIN—Action of the Chicago Association of Commerce—Consul-General of Nicaragua in New York—Trade between Latin America and the United States in 1909—United States Consul at Ciudad Porfirio Diaz—Economic conditions of the Argentine Republic in 1909—New presidential administration in Bolivia—Cuban trade in 1909—Ecuador's advanced trade values—Paraguay's industrial products.	
William I. Buchanan, Pan-American Diplomat	835
Book Notes	838
The Andean land—Fernando Cortes and the conquest of Mexico—Wanderings in South America and the Antilles—Life of Dr. José Manuel Mestre—In the Guiana Forest—Report of the Playgrounds Association of America—Gold mining in Tierra del Fuego.	
What Is in the Magazines	841
The city and port of Para—America's share in civilization—Organization in the construction of the Panama Canal—Highlands of Bolivia and Peru—Peabody Museum expeditions to South America—Mining conditions in Mexico and Colombia—The story of leather—Opportunities for sportsmen in Mexico—The use of coffee in England—New magazine in Honduras—Mexican topics—Transport in the Argentine capital—Overland tour from Lake Nahuelhuapi to Punta Arenas—Sanitary measures in Rio de Janeiro—The historic memories of Chapultepec—Latin-American finance—Extracts from BULLETIN articles.	
Latin-American Notes	847
Month of November in Pan-American History	850
The Turkey: America's Greatest Indigenous Fowl	852
The American Museums	867
The United States National Museum.	
The Great Guano Deposits of Peru	884
Cartagena: "The Heroic City"	892
Opening up Oriente	901
Commercial Aspects of the Forests of the Dominican Republic	914

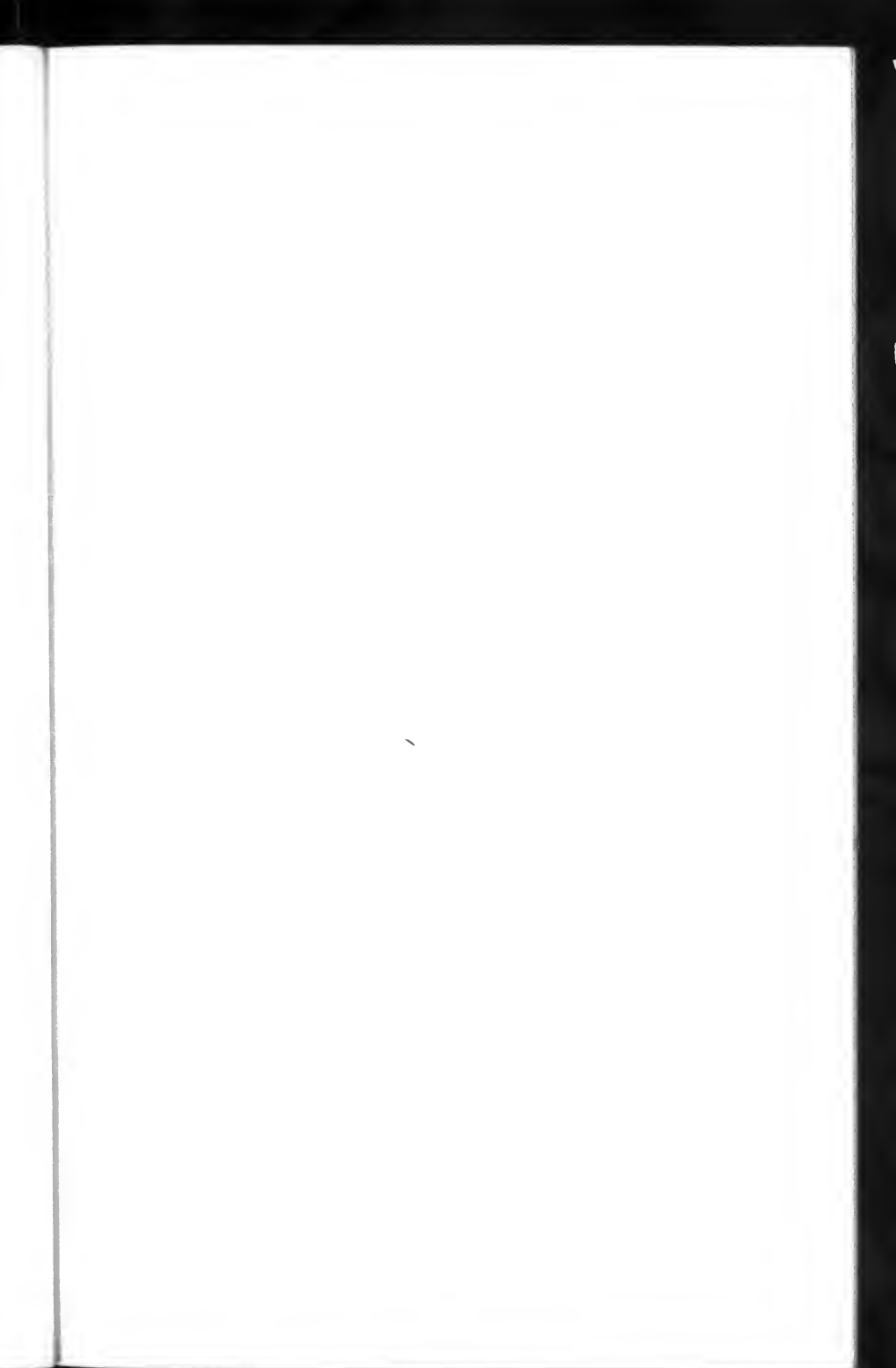
	Page.
Ecuador's Military School	925
Subject-Matter of Consular Reports	929
Argentine Republic	933
Foreign commerce, first half of 1909—Sanitary condition of live stock— Removal of embargo on United States cattle—Proposed budget for 1910— Exports of goatskins—Quebracho in the United States market—Viticulture and wine production—Patent fees in the Republic—Proposed restriction of immigration—Railway traffic, first half of 1909.	
Bolivia	939
Inaugural address of President Villazón—Foreign commerce, first half of 1909.	
Brazil	941
Modification of trade-mark law—Customs receipts, first half of 1909—Treaty of commerce and navigation with Ecuador—Acre Territory—Boundary treaty with Peru—Navigation convention with Peru—River navigation service—Rubber congress at Manaus—Floating dock at Rio de Janeiro— Banana exports—Extension of telegraph concession—The trade in orchids— Railway notes—New industrial enterprise.	
Chile	947
Shipment of chinchilla skins—Foreign investments in nitrate—Insurance in the Republic—Irrigation projects—Increase of wheat exports.	
Colombia	950
Competitive bids for government contracts.	
Costa Rica	950
Practical training in public schools—Gold mining in the Republic.	
Cuba	951
Foreign commerce, fiscal year 1909—New members of the Pan-American Committee—Education in the Republic—Telephone concession.	
Dominican Republic	953
Budget estimate for 1909-10.	
Ecuador	953
Foreign trade in 1908—Tax on commercial travelers—Sanitary measures.	
Guatemala	955
New President of the International Central American Bureau—Honor to Robert Fulton.	
Haiti	956
Orange flowers from an industrial point of view—Financial condition of the Republic—Foreign relations of the Republic—Participation in the Interna- tional Exposition of Brussels.	
Honduras	958
Refunding of the national debt—Arbitration treaty with Brazil—Mining properties in the Republic.	
Mexico	960
Message of the President—The meat-packing industry—Colonization con- tract in Durango.	
Nicaragua	966
Telegraph and telephone service—Tercentenary Exposition at Leon.	

TABLE OF CONTENTS.

VII

	Page.
Panama	966
Foreign commerce, first quarter of 1909.	
Paraguay	968
The quebracho industry—Arbitration convention with the United States— Establishment of a mortgage bank—Extraction of the oil of petit grain— The cattle industry.	
Peru	972
Customs treatment in the United States—Foreign registration of trade- marks—Coca culture—Improved banking facilities with the United States— Trade-mark protection—The hide and leather industry.	
Salvador	976
Port movement, first half of 1909—Steamer service between Acajutla and Salina Cruz—Treaty of arbitration with Brazil—Ratification of The Hague conventions.	
United States	978
Trade with Latin America in 1909.	
Uruguay	980
Participation in the Brussels Exposition—Regulations for baggage at Monte- video customs—Special delegates sent abroad—Building materials in the Republic.	
Venezuela	982
Approval of the French cable contract—Commercial treaty with Germany— Tile factory at Caracas—Automobile and steamer service in Amazonas— Government telegraphs and telephones—Expropriation law—Abolition of export duties—Bust of Bolivar in International Bureau—Navigation service—Mining code—The Bank of Venezuela.	

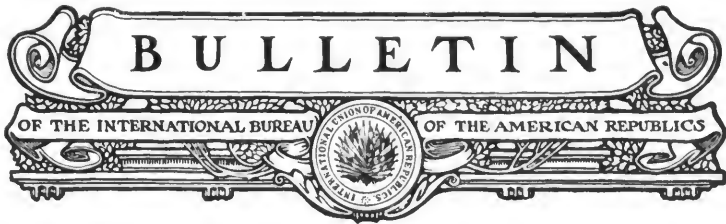






SEÑOR DON EMILIANO GONZALEZ NAVERO,
PRESIDENT OF PARAGUAY.

Señor Don Emiliano Gonzalez Navero, President of Paraguay, was born on June 16, 1861. After a brilliant record in the University of Asuncion, he entered upon a judicial career in 1887 when he was appointed criminal judge. The following year he became a member of the Superior Court of Justice. Becoming interested in politics, he allied himself with the Liberal party and was elected Senator. The Liberals, in 1905, having placed General Benigno Ferreira in power, Señor Navero was appointed Minister of Finance. He was elected Vice-President at the elections held in 1906, and in 1908 succeeded President Ferreira to the executive power. Señor Navero has called around him a Cabinet composed of men distinguished for their learning and devotion to public welfare, which is a sure guarantee for the continuation and strengthening of the friendly relations uniting Paraguay with the other nations of South America.



BULLETIN
OF THE INTERNATIONAL BUREAU OF THE AMERICAN REPUBLICS

VOL. XXIX.

NOVEMBER, 1909.

NO. 5.

THE ink was scarcely dry on the pages of the BULLETIN for October, containing a complimentary notice and the picture of the Hon. WILLIAM I. BUCHANAN, on the occasion of his having been honored by the Venezuelan Government, when the sad intelligence of his sudden and unexpected demise in London, England, came as a heavy blow to all who knew him and had learned to appreciate his sterling qualities as a public man. The cause of Pan-Americanism, of which the International Bureau of the American Republics is a living factor, has lost in Mr. BUCHANAN one of its truest and most devoted friends. His high sense of justice, his love of peace, his familiarity with the affairs of Latin America, his knowledge of human nature, his sincere desire to aid in the development of closer relations between the United States and the other Republics in this Hemisphere, made Mr. BUCHANAN peculiarly apt in the successful discharge of the diplomatic duties, at times of a most delicate character, which the United States intrusted to him on several occasions. He entered the diplomatic service in 1894, as American minister to the Argentine Republic, where he laid the foundations of his career as an international authority by his award in the Argentine-Chilean boundary question, as the umpire selected by the contending parties. At the time of the Second Pan-American Conference, in Mexico, 1902, as one of the delegates of the United States, and in 1906, as the chairman of the American delegation to the Third Pan-American Conference of Rio de Janeiro, Mr. BUCHANAN served the interests of Pan-America with that same broad, unselfish spirit which gained for him and for his country the respect and consideration of all. In 1904, when Panama became an independent State, Mr. BUCHANAN was the first American minister accredited to the young Republic, a position requiring the highest diplomatic attainments. The success of the Central American Peace Conference, held in Washington in 1907, was due in a large measure to Mr. BUCHANAN, then the representative of the Department of State of the United States at the conference. His untiring efforts, his broad views, his friendly advice, were by all appreciated and



Copyright by Harris-Ewing, Washington, D. C.

THE LATE HONORABLE WILLIAM I. BUCHANAN,

The distinguished American diplomat, chairman of the Pan-American Committee,
who died in London October 16, 1903.

eagerly sought for. He afterwards, as the representative of the State Department, attended the opening of the Central American Court of Justice at Cartago, Costa Rica. In December, 1908, Mr. BUCHANAN was sent to Venezuela as High Commissioner of the United States to renew diplomatic relations between the two countries. The success of his mission was brilliant, as he not only satisfactorily settled all pending questions, but also gained the good will of the Venezuelan Government for his fairness and the lofty spirit shown at all the stages of the negotiations, to the extent of having conferred upon him the order of the "Bust of the Liberator," of the second class, the first class being reserved for heads of nations. At the time of his death Mr. BUCHANAN was the agent of the United States for the peaceful arbitration at The Hague of the only claim against Venezuela that has not been settled, and was also chairman of the Pan-American Committee for the Fourth Pan-American Conference. Full justice can not be done to Mr. BUCHANAN's affection for Latin America. To quote from an interview given by the Director of the Bureau, "Next to ELIHU ROOT, he has done more than any North American to develop true Pan-American good will and friendship."

DEATH OF MAJ. GEN. ALFRED E. BATES.

The BULLETIN has to record the death of another member of the Pan-American Committee, Maj. Gen. ALFRED E. BATES, who died in New York October 13, 1909. General BATES was born July 15, 1840, and had a brilliant military career. He was a West Point graduate in 1865, and retired from active service in 1904 with the rank of major-general. At the time the Pan-American Committee was appointed by the then Secretary of State of the United States, the Hon. ELIHU ROOT, General BATES was selected to be a member of that committee, which consists of 14, chosen from among the most distinguished citizens of the United States especially interested in Latin-American affairs. In the organization of the committee under the chairmanship of the Hon. WILLIAM I. BUCHANAN, General BATES was appointed a member of the executive committee of four, and as such rendered most important services both to the executive committee and to the general committee. By direction of the committee, General BATES prepared a paper on "International Monetary Exchange," which is a most valuable and exhaustive contribution to the literature of the subject.

DELEGATES TO THE FOURTH PAN-AMERICAN CONFERENCE.

As the time draws nearer for the holding of the Fourth Pan-American Conference at Buenos Aires, Argentine Republic, in July, 1910, the countries in the International Union are commencing to name their delegates.



Photograph by Harris-Ewing.

THE LATE MAJOR-GENERAL ALFRED E. BATES,
Member of the Pan-American Committee, who died in New York City October 13, 1909.

The Argentine Republic has led off by appointing men who rank among her foremost citizens. Some of them have international reputations. Not one of them is a man of inferior ability. This example set by the nation which will act as host of the convention will doubtless be followed by all the other Governments. The delegates of the United States will probably be selected early in January, after Congress has made an appropriation for the expense of participation in the conference. It is hoped that those chosen will be not only those whose names will seem complimentary to Latin America, but of a kind to convince the people of the United States that the conference is one of first importance. In a recent communication received at the United States Department of State from Hon. CHARLES H. SHERRILL, United States Minister at Buenos Aires, there is some interesting information about the Argentine delegation, which is made up as follows: ANTONIO BERMEJO, EDUARDO L. BIDAU, LUIS MARIA DRAGO, ESTANISLAO S. ZEBALLOS, ROQUE SAENZ-PEÑA, CARLOS RODRIGUEZ-LARRETA, MANUEL A. MONTES DE OCA, JOSÉ A. TERRY, and EPIFANIO PORTELA.

Doctors BIDAU, TERRY, and PORTELA were three of the four Argentine delegates at the Third Congress held in Rio de Janeiro in 1906, and were appointed by Señor MONTES DE OCA, the then Minister for Foreign Affairs. Doctor BERMEJO was delegate at the Second Congress held at the City of Mexico, and Doctor SAENZ-PEÑA was delegate at the first one, held at Washington in 1890. Doctors DRAGO, ZEBALLOS, SAENZ-PEÑA, RODRIGUEZ-LARRETA, MONTES DE OCA, and TERRY have served as Ministers for Foreign Affairs. Doctors DRAGO, ZEBALLOS, SAENZ-PEÑA, and RODRIGUEZ-LARRETA are the four gentlemen designated by the Argentine Republic as members of the Permanent Court of Arbitration at The Hague. The following data indicate the high standing of the designates to the conference:

Doctor BERMEJO is the President of the Federal Supreme Court and has been Minister of Public Instruction and Justice. Doctor BIDAU was formerly professor of international law, University of Buenos Aires. Doctor DRAGO is at present at The Hague as judge in the North Atlantic coast fisheries arbitration. Doctor ZEBALLOS was twice Minister for Foreign Affairs, Minister to the United States, a voluminous writer on international law, and now occupies that chair in the University of Buenos Aires. Doctor SAENZ-PEÑA is Minister to Italy, has been Minister to Uruguay and Spain, and at present is the leading candidate for the Presidency. Of Doctor RODRIGUEZ-LARRETA there is to be said that he is a fine orator. Doctor MONTES DE OCA is a practicing lawyer, has been Minister of the Interior, professor of constitutional law (University of Buenos Aires), and was attorney for the Argentine Republic in London for four years during the arbitration by King EDWARD of the Argentine-Chile boundary dispute. Doctor TERRY has been Minister of Finance, professor of finance (University of Buenos Aires), and was selected as



DR. FRANCISCO X. AGUIRRE JADO,
Minister of Foreign Relations of Ecuador.

Delegate to the Third Congress (and probably now for the same reason to the Fourth) because of his grasp of international financial questions. Doctor PORTELA is Minister to the United States, and has been Minister to Brazil, Chile, and Spain.

PITTSBURG AND LATIN AMERICA.

Among the representative Americans who have recently made a trip to a portion of Latin America is Mr. P. C. WILLIAMS, assistant secretary of the Pittsburg Chamber of Commerce. In September he made a trip to Colombia, Panama, and Costa Rica, for the purpose of gathering information in relation to trade extension. He reports that he was greatly surprised by what he saw and was impressed with the opportunities for the development of commerce between the United States and those countries. Mr. WILLIAMS believes that Pittsburg can find a great market throughout Latin America for its manufactured products, and favors the sending to that part of the world of a trade commission representing the city and its large interests. In the execution of this plan he will have the hearty cooperation of the International Bureau.

CONSUL-GENERAL OF THE UNITED STATES OF AMERICA AT GUATEMALA CITY, GUATEMALA.

WILLIAM P. KENT was born at Wytheville, Virginia, March 8, 1857. He graduated from William and Mary College in 1876 and received the degree of LL. B. from the University of Virginia four years later, being admitted to the bar in the same year. He practiced law until 1890, when he became a newspaper editor, in which field he continued until 1900. He was made captain of the Second Virginia Regiment of Volunteers in the Spanish-American war, under Gen. FITZHUGH LEE, and in 1905 was a candidate on the Republican ticket for lieutenant-governor of his native State. Mr. KENT was appointed to his present post in 1906.

THE NEW BUILDING IN THE "WASHINGTON GUIDE."

The importance of the part which the new building of the International Bureau will play in the attractions of Washington to visitors is evidenced by the intention of FOSTER & REYNOLDS, the publishers of the "Official Washington Guide" to place in this publication a special colored picture of the structure, accompanied by a careful sketch of its architectural features and a description of its significance as an international institution. Already the men who describe different buildings as they show structures to you in the "Seeing Washington" cars are pointing out



HONORABLE WILLIAM P. KENT,
Consul-General of the United States of America at Guatemala City, Guatemala.

the new building as one of the most interesting edifices that is being erected in the National Capital. The prominent position that it occupies at the corner of Potomac Park and the White Lot causes it to be seen by everybody who drives, motors, or walks in that attractive section of the city.

A PAN-AMERICAN CONFERENCE AT SAN ANTONIO, TEXAS.

Col. IKE T. PRYOR, the newly elected president of the Trans-Mississippi Commercial Congress, and a resident of San Antonio, Texas, has inaugurated a campaign in favor of holding at that city in the fall of 1910 a Pan-American Commercial Congress, at which will be present representatives from all of the Latin American Republics, as well as from the United States. Whether this will be held in connection with the Trans-Mississippi Congress or separately is not yet fully determined, but whatever Colonel PRYOR and San Antonio undertake is usually carried through successfully, which is shown by the way in which that city secured the next meeting of the Trans-Mississippi Commercial Congress in face of active competition from other important points. In order to draw attention to this project for a Pan-American gathering, it is now stated that a group of San Antonio's leading citizens, headed by Colonel PRYOR, will visit South America next year, including a stay at Buenos Aires to see the exposition which will be held there, for the purpose of inviting representative people and interests from that part of the world to come to attend this gathering at San Antonio. The International Bureau commends enterprise of this kind on the part of the people of Texas, and assures them of its hearty interest and cooperation.

FINANCIAL REPRESENTATIVES OF HONDURAS.

Much interest has been manifested in the presence in the United States of Sr. Don JUAN E. PAREDES and Sr. Don PAULINO VALLADARES, prominent men of Honduras, who have been sent to the United States for the purpose of consulting with the bankers of that country in regard to the financial conditions of their own country. Honduras is a land of great material potentialities, and it is to be hoped that much good will result from the negotiations of these delegates.

STATUE OF GEORGE WASHINGTON IN BUENOS AIRES.

The North Americans residing in Buenos Aires are to be complimented on their plan to present a statue of George Washington to the Argentine Government upon the occasion of the celebration of the centennial of its

independence in 1910. It is fitting that this should be done, because General SAN MARTIN, the great liberator of southern South America, gained much of the inspiration for his wonderful task from the career of GEORGE WASHINGTON. SAN MARTIN, as well as WASHINGTON, was one of the great characters of the world's history, and it is to be hoped that the city of Washington may yet be graced with a statue of this man, and also of SIMON BOLIVAR, the liberator of northern South America.

CONSUL-GENERAL OF HONDURAS IN NEW YORK.

Señor Don GUILLERMO MONCADA, the present Consul-General of Honduras to the United States in New York City, was born November 17, 1879, at Tegucigalpa, Honduras. He attended the Central University of that city and at the age of 21 received the degree of licentiate in law and political sciences, shortly afterwards being appointed judge of the courts of the Republic. Señor MONCADA has filled the important offices of secretary of the Supreme Court of Justice, judge of the Auditor's Office, and assistant judge of the Supreme Court in his own country, and in addition to his position as Consul-General he also fills that of secretary of the Hondurian Legation at Washington, D. C.

SPECIAL ARTICLES IN THE NOVEMBER ISSUE.

Among the special articles worthy of careful reading in this issue are the following: "The Turkey—America's Greatest Indigenous Fowl;" the first of a series of articles on "The American Museums—The United States National Museum;" "The Great Guano Deposits of Peru;" "Cartagena, the Heroic City;" "Opening up Oriente;" "The Dominican Forests;" and "The National Military School of Ecuador."

ACTION OF THE CHICAGO ASSOCIATION OF COMMERCE.

The Chicago Association of Commerce some months ago made arrangements with Mr. LEOPOLD GRAHAME to represent it as a trade commissioner in Buenos Aires. Later on Mr. GRAHAME found out that it would be impossible for him to undertake the work desired and accordingly presented his resignation. Although this was accepted, it is not the intention, the Bureau is informed, of President SKINNER and Vice-President SHIELDON, of the Foreign Trade Division, to abandon commercial representation at Buenos Aires. WILLIAM HUDSON HARPER, the editor of "Chicago Commerce," informs the Bureau that in due time a successor to Mr. GRAHAME will be appointed, and that every effort will



SEÑOR DON GUILLERMO MONCADA,
Consul-General of Honduras to the United States in New York City.

be made by the association to get into closer touch with the business interests of Buenos Aires and of the Argentine Republic. This association is to be congratulated upon its enterprise in foreign trade matters, and it is to be hoped that its experience in South America may not be disappointing.

CONSUL-GENERAL OF NICARAGUA IN NEW YORK.

Señor Don Pío BOLAÑOS, the Consul of Nicaragua to the United States in New York City, was born in Granada, Nicaragua, and received his early education in the "Instituto Nacional de Oriente," where he obtained the degree of bachelor of arts. Subsequently, he attended the Law School of Granada, and later went into the newspaper business, publishing for some time in Managua a Liberal daily paper entitled "*La Democracia*." He served for three years as private secretary to President ZELAYA. In 1901 he was secretary of the Nicaraguan delegation to the Second Juridical Central American Congress which met in the Republic of Salvador, and in January, 1903, acted as secretary to the Nicaraguan Legation in the same Republic. In May, 1903, Señor BOLAÑOS was appointed Consul of Nicaragua in New York City, which position he has filled to date. At the beginning of the present year he was also appointed secretary of the Nicaraguan Legation in Washington, but resigned this position, as it was impossible to devote proper attention to his duties at the legation in addition to his consular work. The Government of Nicaragua appointed him as its Special Delegate to the Hudson-Fulton Celebration recently held in New York.

TRADE BETWEEN LATIN AMERICA AND THE UNITED STATES IN 1909.

Favorable augury may be drawn from the trade returns covering transactions between the United States and Latin America in the fiscal year ending June 30, 1909, when a gain of nearly \$33,000,000 was recorded as compared with the preceding twelve months. The decline of \$18,000,000 noted in exports of United States goods to Latin America is more than offset by an increase in receipts of Latin-American products to the extent of more than \$50,000,000. As compared with the calendar year 1908, a distinct improvement is to be noted, both branches of trade showing gains. Mexico, Cuba, and the Argentine Republic, in the order named, lead as markets for United States goods, and from Brazil, Cuba, and Mexico are shipped the largest proportion of tropical products destined to the United States. It is only with Mexico, the Dominican Republic, and Panama, exclusive of the Canal Zone, however, that an approximate trade balance is maintained, as imports from the other countries far exceed in value the shipments made thither.



SEÑOR DON PIO BOLAÑOS,
Consul-General of Nicaragua to the United States in New York City.

Coffee and rubber were received from Brazil to the value of \$57,067,961 and \$34,265,807, respectively; and from Cuba, sugar and tobacco worth \$68,857,770 and \$15,669,570, these two countries distaneing all others in the value of their commodities marketed in the United States.

CONSUL OF THE UNITED STATES OF AMERICA AT CIUDAD PORFIRIO DIAZ,
MEXICO.

LUTHER T. ELLSWORTH, Consul at Ciudad Porfirio Diaz, Mexico, has had a large experience in Latin-American countries, having spent the period from 1874 to 1880 in Venezuela, Colombia, Panama, Cuba, and Mexico, in exploring, prospecting, and studying the language and people. From 1881 to 1897 he was connected with the chief engineer's department of the Lake Shore and Michigan Southern Railway in Ohio, and during the last few years of this period was supreme president of the political order of mechanics called "Shop Clubs of Ohio." From 1898 to 1903 he was Consul at Puerto Cabello, Venezuela, where he also represented the Republic of Cuba. From 1904 to 1906 he served as Consul at Cartagena, Colombia, also representing the interests of Cuba and Panama. In 1907 Mr. ELLSWORTH was appointed Consul at Chihuahua, Mexico, and since 1908 has occupied his present post at Ciudad Porfirio Diaz, a position of much importance on account of its location on the American border.

ECONOMIC CONDITIONS OF THE ARGENTINE REPUBLIC IN 1909.

Based upon the returns of Argentine commerce during the first half of 1909, it is safe to assume that the year's trade transactions will exceed by over \$75,000,000 those recorded for 1908. At the end of June, in a total valued at \$393,000,000, the advance made as compared with the corresponding period of the preceding year was over \$38,000,000, both branches of trade showing noteworthy gains, with an excess of more than \$18,000,000 on the side of exports. Wool and corn exports made remarkable gains, \$15,000,000 and \$8,000,000 representing their respective increased valuations. The shipment of hides of all classes increased, and their free entry at United States ports will undoubtedly further stimulate the industry, as it is to that country that the bulk of Argentine hides are sent. The announced disappearance of the foot-and-mouth disease in the Republic and the removal of the embargo on United States cattle at Argentine ports are features of recent development in the economic life of the Republic. Traffic receipts on all railways are in the highest degree satisfactory, and industries are being stimulated by the era of general prosperity. The total valuation of Argentine commerce in 1908 was a little less than \$639,000,000.



LUTHER T. ELLSWORTH,

Consul of the United States of America at Ciudad Porfirio Diaz, Mexico.

NEW PRESIDENTIAL ADMINISTRATION IN BOLIVIA.

As foreshadowed in the inaugural address delivered by President VILLAZÓN in August, 1909, the present administration of Bolivian affairs will carry into effect many works of public utility. It is desired to promote immigration, to introduce improvements in the developing of the great mineral industry of the country, and to advance the construction and exploitation of means of communication for the benefit of trade and general progress. The first quarter of the present year shows a distinct gain on the side of exports as compared with 1908, though a decrease in imports is recorded.

CUBAN TRADE IN 1909.

Although the figures of Cuban trade during the fiscal year 1908-9 show a decline in the total valuation of over \$5,000,000, as compared with the preceding twelve months, it is worthy of note that the remarkable gain of more than \$18,000,000 is recorded for exports, exclusive of specie.

ECUADOR'S ADVANCED TRADE VALUES.

Recently published figures covering the commerce of Ecuador during 1908 show that instead of a decline in value for the year's transactions, as previously reported, a substantial gain was made over the preceding year. Export valuations exceeded those of 1907 by \$1,486,390 and imports by \$427,378 in a total amounting to \$23,556,968; in fact, the figures for the year create a record for the country's trade in five years.

PARAGUAY'S INDUSTRIAL PRODUCTS.

Apart from the paramount importance to Paraguay of the cattle industry, the Republic is also a source of supply for two very valuable and generally little-known products. Of the quebracho extract used in tanning leather, Paraguay manufactured 15,000 tons in 1908 and shipped abroad more than 66,000 pounds of oil or essence of petit-grain. The quebracho extract is obtained from the wood of the same name which constitutes so large an item of national wealth, and the petit-grain is distilled from the leaves of the Paraguay orange tree, forming an important ingredient in the manufacture of the world's perfumes.

WILLIAM I. BUCHANAN PAN-AMERICAN DIPLOMAT

TO WILLIAM I. BUCHANAN, who recently died in London, the title "diplomat of the Americas" may be accorded with possibly more appropriateness than to any man of the present era. During a diplomatic career of only fifteen years his good offices were employed in behalf of the Governments of the Argentine Republic, Chile, Panama, Venezuela, Mexico, and the Central American Republics, in addition to the United States.

A citizen of the latter country, his thorough comprehension of the Latin-American peoples and their abundant appreciation of his fair-mindedness rendered him peculiarly acceptable in the arrangement of delicate questions arising between the nations of the New World. Apart from his purely ministerial functions, he was frequently charged by the Department of State of the United States with special missions requiring finesse and judgment of the highest order. That his undertakings were invariably crowned with success is a tribute not only to his astuteness but also to his integrity of purpose. With no preliminary training, he entered the diplomatic service in 1894 as United States Minister to the Argentine Republic and continued as a prominent and trusted factor in American affairs until the day of his death.

A contributing cause of no little value in his notable career was an attractive personality added to an attitude of deference toward the rights of all men.

Mr. BUCHANAN was born in the town of Covington, Ohio, on September 10, 1853. He obtained his early education in the schools of the State, and in 1874 entered upon his first public office as engrossing clerk of the House of Representatives of the State of Indiana. Subsequently he engaged in mercantile pursuits in Sioux City, Iowa, and was the organizer of the great exposition held there for the display of the cereal resources of the West, a notable feature of which was the corn palace.

His success in this undertaking led to his appointment as the State's Commissioner to the World's Fair of Chicago, held in 1893 in celebration of the fourth centennial of the discovery of America.

The following year he was appointed as Envoy Extraordinary and Minister Plenipotentiary of the United States to the Argentine Republic, and during the six years of his service in that capacity devoted his energies to extending and improving commercial intercourse between his country and South America.

While in Buenos Aires he also served as arbitrator in a boundary question between the Argentine Republic and Chile, and discharged the difficult task in accordance with the high spirit of justice that characterized all his dealings in American affairs. The reciprocity treaty negotiated by him between the Argentine Republic and the United States gave promise of mutual benefit to the business interests of the two countries, but it failed of ratification by the Senate of the latter.

By the unanimous vote of the Board of Directors, he was chosen as Director-General of the Pan-American Exposition at Buffalo, held in 1901, whereupon he resigned his position as Argentine Minister, to devote his time and energies to the promotion of the enterprise.

The high esteem in which he was held by the Latin-American representatives in the United States and his knowledge of pertinent matters led to his appointment, in 1902, as delegate on the part of the United States to the Second International Conference of American States, held in Mexico. Scarcely had he finished his work in this connection before he was again drafted into the diplomatic service to become the first United States Minister to Panama, where, owing to his tact, he was able to adjust the international issues that had developed as a consequence of the establishment of that Republic.

Upon the conclusion of this mission Mr. BUCHANAN returned to private life and represented large business concerns in South America and Europe.

Again, in 1906, his Government called upon him to serve as chairman of the United States delegation to the Third International Conference of American States, held at Rio de Janeiro, where his zeal and intelligence were employed in the consideration of measures for the promotion of closer relations among the countries of America.

At the Central American Peace Conference, held in Washington in 1907, Mr. BUCHANAN and Señor ENRIQUE CREEL, as the representatives of the United States and Mexico, respectively, served in advisory capacities in the deliberations of the delegates. Mr. BUCHANAN was tireless in the conciliation of the various interests represented in that gathering, and subsequently visited Mexico and Central America as Special Commissioner, representing his country at the inauguration of the Central American Court of Justice at Cartago, Costa Rica.

Empowered as High Commissioner in the reestablishment of diplomatic relations between the United States and Venezuela and the settlement of pending questions between the two countries in 1908, he met with such brilliant success in his negotiations that not only were satisfactory conclusions reached, but the Government of Venezuela conferred upon him the order of the "Bust of Bolivar of the Second Class," as a token of the especial esteem in which his high conceptions of justice and equity were held.

At the time of his death Mr. BUCHANAN was accredited as counsel for the United States before the tribunal of The Hague for the adjustment of the only question at issue with Venezuela. He was also chairman of the Pan-American Committee charged with the promotion of the various conventions signed at the International Conference of American States.

The funeral ceremonies in his honor were held on October 31, in the city of Buffalo, where he had made his home of late years. The Department of State of the United States and the International Bureau were respectively represented on the occasion by Mr. Wm. Cullen Dennis and Mr. Francisco J. Yánes, Secretary of the Bureau.



BOOK NOTES

The Andean Land (South America); by CHASE S. OSBORN; with over fifty illustrations and four maps; in two volumes; Chicago, A. C. McClurg & Co., 1909. In a charmingly discursive manner, Mr. OSBORN tells of affairs in South America and the people that vitalize its thirteen countries. He also furnishes notes of travel and such suggestions as were found of value to the author in his journey from Panama to Patagonia and from the Atlantic to the Pacific. The keynote to the work is struck in the "foreword," which states that—

within the last decade there has been a recrudescence of interest in South American countries. Even touring agents and traveling people, both commercial and otherwise, are awaking to the fact that there are other Riviéras, that the Patagonian channel rivals the Norse coast, and there is a charm of nature and newness in South America quite equaling in attractiveness the ancient monuments of Egypt. * * * Not even in the Himalayas are there more majestic peaks or so many as in the Andean Cordilleras. Africa presents no greater range for zoologist or botanist and is not so accessible. If one seeks rest, adventure, or the exploitation of new regions, he can find all in South America.

Of Rio de Janeiro the traveler states "it is the largest Portuguese-speaking city in the world," as Buenos Aires heads the list of Spanish-speaking cities. To the remarkable scenic beauties and municipal improvements of the Brazilian capital, enthusiastic tribute is paid, as well as to the sanitary measures that have transformed it into its present desirable place of residence. Of the wonderful "*La Prensa*" newspaper plant in Buenos Aires he writes:

There isn't another newspaper building equipped like it or on the same plan in the world, and as a type of purely Argentine accomplishment it is rare and would take high place anywhere.

Particularly interesting are the notes on Patagonia and in the chapter devoted to crossing the Andes, the plunging horses, the excitably voluble driver, the precipitous mountain sides, the glacial pathways presided over by the mighty condor of the Andes are woven into a stirring narrative of adventure. In pleasing contrast to perilous paths is the description of the interior Argentine town of Mendoza, the center of the wine industry of the Republic. Under the proprietorship of an Italian, one gigantic plant, including *bodega*, presses, and vineyard, places on the market wines comparable with the finest vintages of France, California, or Italy. The resources of the various countries visited—agricultural, mineral, and pastoral—are given adequate attention, as are also the means of communication, commercial possibilities, and social customs, the whole supplying a mass of informatory matter of great value and interest. An important feature of the work is an illuminative index whereby items sought may be located with ease and dispatch.

Fernando Cortes and the Conquest of Mexico, 1485-1547; by FRANCIS AUGUSTUS MACNUTT; G. P. Putnam's Sons, New York and London; The Knickerbocker Press, 1909. No reader of Mr. MACNUTT's "Letters of Cortes," or his account of the life, apostolate, and writings of Las Casas, will need urging to read the new book by the same author. In the "Letters," a personal and autobiographical view point of the great conqueror's achievements is presented, whereas in the present volume consideration is given to the psychological, racial, and material influences that made the man what he was; the circumstances that developed his latent powers; the motives that directed his actions and the means he used to achieve his ends. Bearing in mind the complete divorce that prevailed between morals and politics in the century in which he lived, the injustice of measuring the life and actions of Cortes by other standards than those with which he was familiar is evident. He was a born leader, and for a leader success is a necessity, by whatever means attained. Audacity in planning and executing his policies—witness his seizure and destruction of Montezuma—was the keynote of his success, and though to the scoffing philosopher of the present day, a crusading buccaneer in whose character the mystic and roisterer fought for mastery seems little calculated to remake a map of the world, yet such was the conqueror of Mexico. The author urges upon the Republic, which will shortly celebrate the four hundredth anniversary of discovery and conquest, to suitably revive the memory of the great captain, and if there be any clue or trace by which the body of CORTES may be found, to have the remains recovered and placed in the national pantheon.

Wanderings in South America, the Northwest of the United States, and the Antilles in the years 1812, 1816, 1820, and 1824; by Charles Waterton; Sturgis & Walton Company, New York, 1909. This reprint of the record left by a celebrated naturalist of his experiences in American forests is preceded by a brief introduction by CHARLES LIVINGSTON BULL, who states that after a boyhood fired with the story of WATERTON's wanderings, he visited the Demerara district of Guiana and found that in the tropical forest conditions had changed but little in the hundred years that had elapsed since the original account was written. To the nature lover, therefore, this volume is the same source of information concerning the tropical forest and bird lore that it was nearly a century ago. Told in quaint language is the history of the bird life with which the forest teems.

The Life of Doctor José Manuel Mestre, by Dr. JOSÉ IGNACIO RODRIGUEZ, has recently been issued in Havana by Messrs. Aristides

Mestre and Juan M. Dihigo y Mestre. Doctor RODRIGUEZ, who died while filling the offices of chief translator and librarian in the International Bureau of the American Republics, partially prepared the work for publication before his death, part being in the press and part still in manuscript. The publishers have collected these materials and issued the work as a combined tribute to the memory of Doctor MESTRE and of his friend and compatriot Doctor RODRIGUEZ.

In the Guiana Forest; by JAMES RODWAY, F. L. S.; T. Fisher Unwin, London, 1894. An interesting study of the life of man, animals, and plants in the dense wildwood of the Tropics, the volume is an addition of value to the files of the Columbus Memorial Library.

The Gold Regions of the Strait of Magellan and Tierra del Fuego is the descriptive title of a pamphlet by R. A. F. Penrose, jr., reprinted from the *Journal of Geology*. (Vol. XVI, No. 8, Nov.-Dec., 1908.) It presents a careful study of the country, of gold mining in that part of the world, and of settlement of Patagonia and Tierra del Fuego. Punta Arenas is compared with Dawson, the former in the Far South, the latter in the Far North. Emphasis is given to the fact that the tides on the Atlantic side of the Strait are very strong, reaching in the spring a rise of 40 to 50 feet, while on the Pacific side they are much less.

The Third Annual Congress of the Playground Association of America was held at Pittsburg, Pa., in May, 1909, and discussed with great care the problems connected with the rapid growth of the large cities in the United States. The result of their deliberations are now published in the *Proceedings of that Congress* (Vol. III, No. 3, Aug., 1909), with the title "Report of the Committee on a Normal Course in Play." There are 288 pages in the volume, with Chapters on Child Nature, The Nature of Play, Practical Conduct of Playgrounds, and Administration of Playgrounds, all applicable to school methods and modern teaching. As the educational desires of all the Republics of Latin America are incorporating just such ideas for the physical upbuilding of the child as this Association preaches and practices, it is to be hoped that the Report may find its way and become popular far outside the confines of the United States.

WHAT IS IN THE MAGAZINES

In the "Engineering Magazine" for October, DAVID F. ST. CLAIR publishes an enthusiastic forecast of the trade of the Amazon and the port of Para. Of the latter city he writes:

Para fixes the price of nearly \$100,000,000 worth of crude rubber, nearly half of which was last year consumed in the United States. Para is without a possible rival or neighbor on a coast of nearly a thousand miles. Para sits at the mouth of the great Amazon. Para is 3,000 miles from New York, 3,000 miles from Buenos Aires, nearly 3,000 miles from Iquitos, Peru, near the head of steamboat navigation on the upper Amazon. Para is 3,000 miles from Lisbon, and it is 4,000 miles from London. Para is not only the sole gateway of all northern Brazil but of all trans-Andean Colombia, Peru, Ecuador, and Bolivia. More to the Southern Continent is it to become than New Orleans can ever be to the United States. Para is one of the unique geographical and commercial centers on the globe.

The city is classed among the three great possessions of Brazil, the other two being the practical monopoly of the crude rubber of commerce and the world's greatest river valley. To Para nature seems to have given everything but a modern deep seaport. Notwithstanding this handicap, which is being overcome by harbor improvements on a large scale, the city's imports advanced from \$9,000,000 in 1902 to \$21,000,000 in 1907, and her exports in the same period grew from \$15,000,000 to \$25,000,000, the customs receipts advancing from \$3,600,000 to \$12,000,000. With the construction of the new port works it is reasonable to expect that the city's value as a point of entry and departure will be immensely increased.

The "Share of America in civilization" is the title of the baccalaureate address delivered in June, 1909, to the students of the University of Wisconsin by His Excellency the Brazilian Ambassador at Washington, Mr. JOAQUIM NABUCCO. Reprinted in the "American Historical Review" for October, the scholarly treatment of the subject is given a wider audience. Of vital importance to the maintenance of peace, the great promoter of civilization, in the opinion of Mr. NABUCCO, is pan-Americanism. "Peace and pan-Americanism are convertible terms;" so he strongly phrases the value of the policy of America. Immigration is classified as the greatest contribution of America to civilization. The fusion of races and the development of the spirit of democracy are adjudged as the crown of the North American movement in the realm of higher civilization, and though, as Mr. NABUCCO says, "it is rather early to speak of the part assigned in history to Latin America," yet instances are cited to prove the various forward movements that have been led by Latin American influences. No constitution, for instance, except that of Brazil, provides that war shall only be authorized by the National Congress in case of arbitration being impossible, and no other contains such an article as the one that states "the United States of Brazil, in no case, will enter into a war of conquest, either directly

or indirectly, either alone or allied to another Power." Similarly, to the Argentine Republic is to be accorded the honor of formulating the doctrine of the abolition of war for debt.

"The Book-Keeper" for October publishes an interesting illustrated article by DAY ALLAN WILEY showing the wonderful results brought about by the system of organization applied to the construction of the Panama Canal. Quoting the words of President TAFT to the effect that because "this work is so well organized" present progress has been attained, the writer gives interesting details as to the sanitation, administration, and general upbuilding of the Canal Zone and of the delicate adjustment of the enormous economic and mechanical problems which have been encountered in this "greatest constructive work." The purchasing department, with its careful scrutiny of every article; the labor bureau, with its exact registration of every employee and his capacity, and the location and condition of every piece of machinery; the quartermaster's department, which attends to the feeding and housing of the 41,000 men employed; all these are subsidiary to the great work of cutting the canal, but their importance to the whole is definitely demonstrated. Labor-saving machinery is employed as much as possible and human labor only when absolutely necessary. Steam boilers generating 21,000 horsepower are located at six different stations; the steam shovels represent nearly 6,000 horsepower; in fact, everything is organized on so gigantic a scale and so thoroughly administered that it is possible to accurately gauge not only the length of time required for the completion of the work but also the outlay of money.

"Peru To-Day" in its issue for August makes laudatory mention of the investigations of the South American expedition of the Peabody Museum of Harvard University. The purpose of the investigations, under the patronage of LOUIS JOHN DE MILHAU, was to study the customs, language, dress, beliefs, and habits of the tribes of interior Peru and Bolivia, and to make a collection of their implements, etc. The chief of the expedition, Dr. WILLIAM CURTIS FARABEE, is known to have penetrated where no white man had previously been, and though the full result of his discoveries and their scientific value will not be disclosed until his report is made, it is certain that many regions have been recharted, showing inaccuracies in the present maps, and additions made to the data available for the commercial exploitation of valuable districts. During the two and a half years spent in Peru three expeditions were made; the first starting from Trinidad in Bolivia and embracing Santa Rosa, Cochabamba, Oruro, and La Paz, a study being made of the tribes which inhabit the region visited; the second, involving Urubamba as far as Yaviro, starting from Cuzco, and the third from Lima, passing through Oroya to the Perené camp.

A valuable paper by Professor Isaiah Bowman, of Yale University, on "The Highland Dwellers of Bolivia" comprises the October number of the "Bulletin of the Geographical Society of Philadelphia." In a sympathetic study an attempt is made to estimate the forces that control the distribution and activity of the native races in the Bolivian upland. The most important quality of the Andine Cordillera in its effect upon human geography is its extraordinary and uniform height throughout nearly its whole length and breadth, and for the carrier population the practical height of a mountain or plateau is the height of the passes. This principle receives startling illustration upon application to the Andes. The pass between La Paz and Arica crossed almost daily by the mail coach and caravan is 15,000 feet above sea level, and La Paz itself, though situated in an exceptional depression nearly 1,500 feet deep, yet lies 11,500 feet above the sea. For the dwellers in the mountains and plateaus the Cordillera is not a barrier but a home. Their corrals may be found up on the mountain sides as high as 16,000 feet, and they frequently wander to even greater elevations in the search for pasture lands for their nomadic flocks and herds. For them the crossing of a 16,000-foot pass is therefore only following an accustomed mountain road and not climbing a high elevation. It is their very elevation that makes the plateaus desirable, as, in contrast to the rainless regions of the coast, spring rains are of frequent occurrence in the season and proximity to the source of streams—the winter snows—renders irrigation possible. In consequence of the widespread pasturage, flocks of llamas may be grazed upon nearly every agriculturally unoccupied tract that exists outside the salars and snow fields. As a rule the mountain and plateau Indians are agricultural as well as pastoral, and the highland man is nomadic to the degree that flocks are a supplemental resource to his farm. Between these highland peoples and the inhabitants of the plains there is a commercial interchange of a definite sort, and the fairs annually held near Huari and at other points afford an opportunity for the delivery of potatoes (frost dried), grain, llama and alpaca wool and flesh, firewood, moss, and vicuna skins and wool, for which the plain dwellers offer manufactured goods imported from coast towns, fruits, and alcohol. Chocolate finds its way thither from the eastern plains, also rice, sugar, and the invaluable coca leaf which is so large an element in the life of the traveling Indian. The Cliza pampa is also the scene of market activities, and each Sunday rises upon an incredible variety of products and people congregated here. One of the most noteworthy facts in the geography of Peru and Bolivia is the relatively slight displacement of the Indian inhabitant with respect to his environment which has been effected by the white population, and the statement is made that the agricultural Indian of Atahualpa's day is the type of the Indian inhabitant of the twentieth century. The only important transformation has been brought about through the development of mining. This has been produced through the application of modern industrial methods instead of the coercive measures employed by the Spaniards. That the new industry has by no means supplanted the old is evidenced by the utilization of the alluvial "fans," so called, whereon farm lands irrigated by snow-fed streams spread themselves along terraced slopes of the mountain side.

The "Mining Journal" (London) for August is issued as its seventy-fifth anniversary number, and aside from its general fund of information, contains papers of special value covering mining conditions in Mexico and in Colombia. In regard to the latter country it is stated that for the third time in its varied history it is passing through a period of great activity. The earliest records available speak of the immense mineral wealth which the natives obtained, and in nearly all the Departments the truth of these assertions is borne out by present workings. In Antioquia, Cauca, and Tolima old excavations have been located. Under Spanish domination vast quantities of gold, silver, and precious stones were sent to Europe, and under the revival of the mining industry now in progress many British companies have been formed for the exploitation of the Republic's resources. The districts of Santa Ana, Mariquita, and Fresno in the Department of Tolima are being actively developed, the first named having been one of the gold-producing properties of the Spaniards in 1537. In Colombia mining property and other rights of foreigners are protected and taxes are small so far as the ground is concerned, with an export tax on the product amounting to about 3 to 4 per cent ad valorem.

In the story of leather and its uses written by LOUIS E. VAN NORMAN for the October number of the "Review of Reviews," the status of the Argentine Republic as a leather producer is shown by the following statement:

During 1908 the number of ox and horse hides shipped from the Argentine Republic aggregated 4,379,371, while sheepskins to the amount of 76,371 bales were sent abroad.

The country produces to some extent the tanned hide ready for the manufacturer, as well as the most remarkable of the new tanning agents, the extract of quebracho, which makes the best leather in the world. Among the centers of production for the 100,000,000 hides of goats used in the production of fine leathers, Mexico and South America are included. In the United States in one year the value of hides and skins imported is given as \$75,000,000, and with the free entry through the customs the value will undoubtedly be greatly increased. The writer states that lessening of the shipments of Argentine cattle products to England has had the effect of diverting the hide exports to the United States.

The opportunities for sportsmen in "Mexico's un hunted wilderness" form the subject of the initial article in the "Outing Magazine" for October, by Dillon Wallace. Game is very plentiful, especially deer; the peccary or javalin, bear, pumas and various members of the cat tribe are found, and the streams furnish otter, ducks, and some trout. Two varieties of quail are plentiful, and to the south are a considerable number of wild cattle. The best season for northern sportsmen to visit the country, according to Mr. Wallace, is after September 1, for the high altitudes, and after November 1 in the low country. Such a visit would be a revelation to wilderness lovers and would be worth considerable sacrifice.

The work of a propaganda for the use of coffee in England is discussed in the "Tea and Coffee Trade Journal" for October, the company claiming that its efforts have been markedly successful. It is noted that whereas in America tea importers are trying to reduce coffee consumption, the reverse process is being applied to England by coffee producers. In the four years 1905-1908, something over 10,000 tons represented the annual consumption of coffee in Great Britain, and to August 15, 1909, that amount had already been consumed, leaving the returns for four and one-half months still to be made, and indicating a vastly augmented total for the year.

A new magazine treating of conditions in Honduras in particular and of the other countries of Central America in general has been received by the Columbus Memorial Library. Under the title "The Economical Review" it is proposed to issue, each month, in Tegucigalpa a bulletin concerning the resources, economic conditions, commerce, agriculture, mining, etc., of the countries covered. The magazine is to be printed in Spanish and English, and if the standard set by its initial number be maintained it will add largely to the sources of information concerning Central American States.

Quaint Pueblo Viejo, with its primitive shrimp fisheries and enchanted spring, are made the subject of a paper prepared by RUSSELL HASTINGS MILLWARD for the October issue of "Mexico To-day." Other topics covered in the same number of the magazine include the practical utility and development of lands in Mexico by H. A. BASHAM; flashlights on life in the Republic; the story of the giant Talipot palm; and an interesting contribution to the literature on the subject of mahogany.

In connection with the project for the construction of an underground railway in Buenos Aires attention will be drawn to the existing means of transport in the Argentine capital. The "Bulletin of the National Department of Labor" (*Boletín del Departamento Nacional del Trabajo*) issued in June, 1909, furnishes exhaustive information on the subject of conveyances other than tram cars. The number of automobiles registered is 920, of which 750 are private equipages and 170 for hire.

The fourth paper on the Swedish Magellanic expedition, 1907-1909, appears in the "Geographical Journal" (London) for October and narrates the incidents in the overland tour from Lake Nahuelhuapi to Punta Arenas. The plan of the expedition, as stated by C. SKOTTSBERG, D. Sc., leader, was to follow the Cordillera, passing close to the great lakes and using the passes between the mesetas and the main range, directing special attention to the geology and botany of the section.

The "Scottish Geographical Magazine" for October, in considering the progress of Brazil as set forth in the many publications issued, makes special mention of the measures taken for the adequate sanitation of Rio de Janeiro and the practical disappearance of yellow fever from the city. Other diseases have been similarly attacked, with the result that the general mortality compares favorably with that of many European cities.

An outline of the memories evoked by the thought of the Mexican castle of Chapultepec is published in the "Overland Monthly" for October by G. F. PAUL. Its connection with the past and present history of the Republic is interestingly traced, and photographs of the surroundings and interior of the famous structure add value to the sketch.

"The Bankers' Magazine" for October devotes an appreciable amount of space to a consideration of Latin-American finance. Of special interest are the reports on the Haitian National Bank; monetary reform in the Argentine Republic; monetary conditions in Chile; and the readjustment of the debt of Honduras. In a general review of the financial conditions in the Latin-American countries extensive excerpts are made from the MONTHLY BULLETIN for July.

In its résumé of the leading articles for the month the October "Review of Reviews" quotes extensively from the article on mahogany published in the MONTHLY BULLETIN, and also from the Mexican section of the annual review prepared by the International Bureau of the American Republics, published in July, 1909.

In the "*Beilage der Muenchner Neuesten Nachrichten*" a carefully prepared article on "Chilean Nitrates" is presented. The author acknowledges that much of his material was taken from the BULLETIN of the Bureau of the American Republics and gives due credit therefor.

In the "*Globus*" of September 16, 1909, a very popular geographic weekly of Germany, is an article on the "Trans-Andean Railway," in which many of the statements are taken from the BULLETINS of the Bureau of the American Republics, and due credit given.

LATIN-AMERICAN NOTES

Over \$40,000 (United States currency) is to be spent in enlarging and improving the national college at Parana, Argentina.

The Brazilian Government has created a statistical service in connection with the interstate commerce of the Republic.

The city of Valparaiso has just placed a loan of \$5,000,000 to complete the reconstruction plan as laid out after the earthquake of August, 1906.

A Mexican Institute of Mines and Metallurgy was founded in Mexico, July, 1909. It is modeled on the American Institute of Mining Engineers.

So successful have been the ambulance wagons recently imported from the United States for the health department of Buenos Aires that 15 more are to be ordered at once.

The newly elected officials of the Tramway Company in Cali, Colombia, are president, EDWARD H. MASON; chief engineer, EMILIO BIZOT; general manager, HERMAN S. BÖHMER.

The Chinese in Lima have extensively entered the shoemaking industry. Near the Central Market a colony of them maintain about 20 small shops, and nearly as many operate in Calle de Trujillo.

Buenos Aires is projecting a new avenue through the city to be called, in honor of its hundredth anniversary, 1910, the Avenida Centenario. It will cost several million dollars to carry out the project.

By a recent decision of the management of the Central Railway of Brazil, which is government owned and operated, all passes are abolished, and arrangements for official transportation are made on another basis.

In a late trip of the *Vasari*, the new steamer of the Lamport & Holt Line (BULLETIN, August, 1909), 82 first-class passengers were carried. This is the largest number taken out on any regular steamer of that line to South America.

Consul ALFRED A. WINSLOW, of Valparaiso, reports that there are now under construction for the Chilean Government sixteen public works that are to be completed before the end of 1912, at a cost of \$2,891,913 United States gold.

The Brazilian Minister of Industry has decided to erect a radio-graphic station on the island of Fernando Noronha. This plant will have a radius of 1,000 miles, and will be able therefore to carry on communications between Bahia and Rio de Janeiro.

A German syndicate has begun the attempt to utilize the enormous quantities of locusts in the Argentine Republic for preparation into a commercial fertilizer. Locusts contain about 14 per cent of nitrogen, and are therefore of considerable value for the purpose.

The municipality of Cordoba, Argentine Republic, has ratified a concession by which the water power of San Roque Dam in the near-by mountains is to be utilized for furnishing light and power to the city and neighborhood. The cost will amount to one and a half million dollars.

Consul-General GEORGE E. ANDERSON, of Rio de Janeiro, Brazil, under date of August 11, 1909, reports the announcement of the Sao Paulo government that the present law limiting the exports for the current coffee year to 9,500,000 bags of coffee from that State will not be modified.

The management of the National Railways of Mexico is establishing three schools in which Mexicans will be given instruction on all matters pertaining to railroading. It is the intention to offer opportunity for young Mexicans to fit themselves for active industrial work on the railway in the Republic.

Work has been commenced on the new port works at Pernambuco, Brazil, the total cost of which is to be \$16,200,000. Two dredges, two tugs, and a crane are already in operation, and the construction of the foundation for the breakwater has been started. The improvements are to be finished by July 14, 1914.

Official announcement has just been received at the International Bureau of the American Republics that the steamship line formerly known as the "United States and River Plate Steamship Company" is hereafter to be changed to the Barber Line, under which name it will continue the business of transport between New York and South America.

Foreign packages for Antofogasta, Chile, which require a custom-house examination have hitherto been received only at a customs house in Valparaiso. Arrangements have just been made by which they may be dispatched directly to their port of destination without previous examination. A great saving of time is accomplished in this way.

The Swedish Norwegian Steamship Line proposes to establish a regular passenger and freight service to Mexico. The home port is to be Goteborg. Outward-bound steamers will touch at Christiania, Havana, Coatzacoalcas (Puerto Mexico), Veraacruz, and Tampico. Homeward bound, Galveston, New Orleans, and Norfolk are on the route.

Minister LESLIE COOMBS, at Lima, Peru, reports that a London syndicate, composed of the Bank of London and Peru, the London Bank of Mexico and South America, W. R. Grace & Co., of New York, and Baring Brothers, sharing with the German Bank and Spitzer, of Paris, have taken some £300,000 (\$1,459,950) of the bonds of the Electric Tram and Lighting Company of Lima upon favorable terms.

In the State of Parana, Brazil, the principle of conservation is very well recognized. A law is in force that protects the animals against the hunter from September to April. Small birds and songsters can not be shot at any time. The use of small-meshed nets, dynamite, or similar means for catching fish is prohibited; during the spawning season no fishing whatever can be done. Instruction is given in the schools concerning the character and purpose of these laws, and children are encouraged to both understand and to obey them.

The "Mexican Herald" announces important industrial plans for Mexico by the Pearson interests. The first will be a new steel plant in Mexico City, the initial cost of which is to be \$500,000 gold. High-grade steel for drills and tools, light rails, etc., will be made. A \$250,000 chemical factory for making calcium chloride, caustic soda, etc., is also to be built at once near the steel plant. The Pearsons are also about to spend \$3,500,000 on the construction of 150 miles of railroad in the State of Chihuahua, where they have 3,500,000 acres of timber and agricultural lands.

The Royal Mail Steam Packet Company has just announced two special cruises de luxe—as they are called—to the West India Islands and the chief ports of the Spanish Main. The steamship *Avon*, twin screw, 11,500 tons, will leave New York January 15 and February 19, 1910, for a tour of thirty-one days in this delightful part of Latin America. The same steamer makes a shorter cruise of eighteen days, sailing March 25, 1910, to Nassau, Havana, Santiago, Jamaica, and Bermuda. This company has arranged also for yachting trips in the Caribbean on the steamship *Berbice* in conjunction with the regular sailings of their mail steamers from New York, and has recently established weekly sailings to Bermuda. Such activity on the part of this well-known company indicates clearly the growing interest in travel to Latin America. Details can be obtained from the agents, Sanderson & Son, 22 State street, New York City.

MONTH OF NOVEMBER IN PAN - AMERICAN HISTORY

- November 1, 1888.—THOMAS ALVA EDISON, of New Jersey, United States of America, exhibits his improved and perfected phonograph.
- 2, 1502.—COLUMBUS, on his fourth voyage, discovers and names Porto Bello in Panama.
- 2, 1698.—The Scotch, under WILLIAM PATTERSON, attempt a settlement on the Isthmus of Darien (Panama).
- 2, 1901.—Closing of the Pan-American Exposition at Buffalo, United States of America.
- 3, 1906.—An International Wireless Convention, at which most of the American Republics were represented, is held at Berlin, Germany.
- 4, 1769.—Captain PORTOLÁ, first governor of Upper California, at the head of an expedition sent out by the Viceroy of Mexico in search of Monterey, discovers Golden Gate, the entrance to San Francisco Bay.
- 4, 1903.—The Republic of Panama declares its independence and separation from the United States of Colombia.
- 4, 1908.—Death of TOMAS ESTRADA PALMA, first President of the Republic of Cuba.
- 5, 1820.—LORD COCHRANE, commanding the Chilean fleet, captures the Spanish frigate *Esmeralda*, at Callao, Peru.
- 6, 1813.—The first Mexican Congress, assembled at Chilpancingo, proclaims the independence of Mexico.
- 6, 1903.—The United States of America recognizes the new Republic of Panama.
- 7, 1504.—COLUMBUS returns to Spain from his last voyage.
- 8, 1519.—The Emperor of Mexico, MONTEZUMA II, meets HERNANDO CORTEZ outside of the City of Mexico.
- 9, 1896.—A treaty of arbitration between Venezuela and Great Britain, for the settlement of the Guayana boundary dispute, is signed at Washington, D. C.
- 10, 1860.—Promulgation of the present Constitution of the Republic of Peru.
- 12, 1821.—The Spanish Governor, DON MANUEL DE CASAS, is compelled to resign his office, and a Provisional Committee is appointed to govern Costa Rica.
- 14, 1907.—Opening of the Central American Peace Conference at Washington, D. C., attended by delegates from Costa Rica, Salvador, Guatemala, Honduras, and Nicaragua, as also by representatives of Mexico and the United States of America.
- 15, 1763.—CHARLES MASON and JEREMIAH DIXON begin the running of "Mason and Dixon line," which forms the southern boundary of Pennsylvania.
- 15, 1889.—DOM PEDRO II is forced to abdicate the throne of Brazil, and the change from a monarchy to a republic is accomplished without bloodshed.

- November 16, 1686.—A treaty of neutrality is signed between England and France, for America.
- 17, 1800.—The capital of the United States of America is removed to Washington, D. C., Congress meeting there for the first time.
- 17, 1903.—The United States of Brazil acquire the "Acre Territory" from Bolivia, in consideration of some other Territory and the sum of \$10,000,000.
- 18, 1903.—The Isthmian Canal Treaty between the Republic of Panama and the United States of America, is signed at Washington, D. C.
- 19, 1826.—General SCRE is elected the first President of the Republic of Bolivia.
- 20, 1530.—MARTIM AFFONSO DE SOUZA, the first Governor-General of the Portuguese colony of Brazil, leaves Lisbon with a fleet and 400 colonists.
- 20, 1906.—The Trans-Mississippi Commercial Congress convenes at Kansas City, Missouri, United States of America, at which a number of representatives of the American Republics were invited to speak, as also the Hon. ELLIOTT ROOT and Hon. JOHN BARRETT, the Director of the International Bureau of the American Republics.
- 22, 1810.—HIDALGO DE CISNEROS, the last Spanish Viceroy of the River Plata Provinces, who had been deposed by the people, is sent home on board an English vessel.
- 24, 1824.—Promulgation of the first Constitution of the Republic of Central America (now the Republics of Guatemala, Nicaragua, Honduras, Salvador, and Costa Rica) at Guatemala City, whereby the five nations became the States of a Union known as the "Central American Federation."
- 25, 1757.—The English flag is raised over the ruins of Fort Du Quesne, which on the previous day had been abandoned and burned by the French, and the place is named Pittsburg after the great Commoner.
- 25, 1783.—The British troops and fleet evacuate the city and harbor of New York, United States of America.
- 25, 1862.—A Convention between the Republic of Ecuador and the United States of America, appointing an arbitration commission, is signed.
- 25, 1870.—Promulgation of the present Constitution of the Republic of Paraguay.
- 27, 1838.—The French begin hostilities against Mexico, opening fire on San Juan de Ulua, a castle guarding the harbor of Veracruz.
- 28, 1520.—FERNANDO DE MAGALHAENS, a Portuguese navigator at the service of Spain, discovers the Strait named after him.
- 28, 1821.—Panama declares her independence from Spain and becomes a State of the Republic of Colombia.
- 30, 1782.—Great Britain acknowledges the independence of the United States of America.
- 30, 1786.—Death of DON BERNARDO DE GALVEZ, Viceroy of New Spain (Mexico) and Governor of Louisiana and the Floridas, one of the most popular of the Spanish rulers in the New World.



THE TURKEY: AMERICA'S GREATEST INDIGENOUS FOWL :: :: :: ::

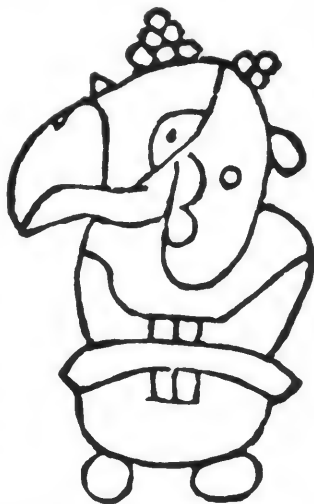
THE Turkey is the one truly American bird and BENJAMIN FRANKLIN wished to select it as the national emblem for the United States. The far-famed eagle represents its species as simply a first cousin in the Western Hemisphere, but the aguila family has occupied the whole earth from time immemorial. The eagle was indicative of the advances of the Roman Empire. It was known in China for ages. To-day it graces the standards of Russia, of Germany, and of several other great world powers. It is seen in the Far East as well as in the United States. The turkey, however, is indigenus to America. It was a favorite fowl among the aboriginal Indian inhabitants of the new continent. It grew and thrived over all the immense areas adapted to maize or Indian corn; like corn, the turkey was discovered by the earliest European adventurers and settlers and by them proudly sent home as trophies of the chase. Since then the turkey, following Indian corn which it so dearly loves as food, has been carried to all the corners of the earth, to embellish the farm and to add another factor to the many contributed for man's enjoyment by America.

When CORRÉS, in 1519, ascended to the plateau of Mexico, he found a social life developed to a high degree of refinement. He was entertained with oriental magnificence, and the delicacies of the Empire were set before him. Game was abundant, and among the numerous varieties the most conspicuous was the turkey. The Spaniards here enjoyed this delicate food for the first time, and they saw also immense numbers of turkeys in the domesticated state, for

in Mexico they were more common than any other poultry. Turkeys were found wild, too, not only in New Spain, but all along the Continent, in the less frequented places, from the northwestern territory of what is now the United States to Panama. The very name of the turkey in Mexican, *huajolote*, indicates the old Aztec knowledge of the bird. It was worshipped in certain parts of the country, with that curious devotion to animals which characterizes different stages in the development from savagery to civilization, and there, except when pressed by the demand for sustenance, it was not eaten; or, if so sacrificed, separate portions were divided among various tribes, so as not to violate religious custom.

North of the Rio Grande the turkey was equally known and treasured. The celebrated expedition of CORONADO, between 1527 and 1547, penetrated this unexplored region west of the Mississippi. This adventurous leader almost met the visionary De Soto coming westward. He spent his time chiefly, however, in what is to-day Texas, Arizona, and New Mexico, the home of the cliff-dwelling and other Indians of the Southwest. CORONADO and his companions frequently noted the presence in all the Indian villages of birds of various kinds, and they were particularly attracted to the turkeys that were here in great numbers, often domesticated, but quite as frequently in large flocks of the wild birds. In many a weary march the explorers narrated that they made toothsome addition to their scanty larder by the flesh of turkeys.

The Zuñi Indians seem to have been familiar with the turkey from their earliest history. They had a tradition about the way the red wattle was acquired, and they tell another curious legend which links their past to the old-world history of the deluge. It is said that the world was at one time covered by a terrible flood of water; the turkey became weary of constant flying, and decided, against the advice of companions and even of the gods, to land wherever opportunity offered. The bird settled in the mud, but when he tried to rise again the feathers could be released only by a mighty pull. Some of the mud stuck to



THE TURKEY IN PICTURE WRITING OF THE NORTH AMERICAN INDIANS.

Whatever means the aboriginal inhabitants of North America adopted to record information was by rude inscriptions on wood or stone. This curious presentation of a turkey was meant to convey the idea that the bird was abundant in that particular neighborhood. It is a rare specimen of native character writing, preserved in the Bureau of Ethnology of the National Museum.



A TURKEY-FEATHER HEADDRESS OF THE APACHE INDIANS.

The aboriginal Indians throughout the West used turkey feathers for many purposes. The Apache adopted this peculiar decoration and it was worn by them in war, but other neighboring tribes occasionally made use of it also. The Cheyenne attached turkey feathers to their arrows, and were given names by their enemies descriptive of this habit.



Photograph by Julian A. Dimock, Peekamoose, N. Y.

THE WILD TURKEY IN HIS NATURAL SURROUNDINGS.

The *Megascops*, a pellucidous fowl, sometimes designated as *catapuzza*, is indigenous to the peninsula of Florida, and is now found in the State of Georgia. It was formerly abundant in New England, but is now totally extinct there. In Florida, North Carolina and Texas, the turkey is still abundant. It is a better appreciated and protective laws enforced. This turkey is indigenous to North America. There is in South America a fowl called turkey, but in reality this is the *curassow* of the Crax family, in which the fowl is quite different from that in turkeys. The *curassow* is by habit an arboreal bird, and feeds chiefly on fruits, seeds, and insects.

the feathers, making a spot on them, and this mark has ever since remained as a sign of the turkey's disobedience both of common sense and divine command.

The aborigines of the Southwest made use of the feathers of the turkey as well as of the flesh. The Spaniards noted this, and in their letters home commented upon the decorations in the headgear of the men, and of the plumes in the adornment of the women. In the extreme north, also, these feathers were put to practical service. The Cheyenne Indians, who once inhabited the area covered by Wyoming, employed them both for dress and on their arrows. This word Cheyenne is not derived from the French, meaning dog, although false etymology has often explained it thus, but it is a French perversion of a Sioux term, meaning red. A word of similar sound in that tribe was likewise applied to the Cheyenne, and this meant "striped arrow," and indicates the fact that these Indians attached the feathers of the wild turkey to their arrows, and could thereby be distinguished from other tribes in the neighborhood.

In early colonial days turkeys were numerous in Massachusetts, coming about the houses of the settlers in large flocks. It was well known throughout New England, Maryland, Virginia, the Carolinas, and Florida, and in the last-named States it is still found as a native wild fowl. Otherwise there is great danger of total extermination which has elsewhere been the result of indiscriminate slaughter east of the Hudson River.

The appellation "turkey" has been abused by mistaken etymology. A fanciful explanation would derive it from the (East) Indian *toka*, which takes the form in Hebrew of *tukki*, the peacock. As the Jews in south Europe were acquainted with this related fowl, it is assumed that they naturally applied the word to the turkey when it was introduced into Spain, which thereafter bore the name wherever it made its home. Such a roundabout origin is unnecessary, however. The bird was called turkey because it was supposed to come from Turkey. In that country it was called an Egyptian hen; elsewhere it sometimes had another geographic title. This was simply in accordance with the habit so very general in the sixteenth century. New and strange things were continually being presented to an ignorant public; knowledge spread slowly, whereas superstition was deep and hearsay taken at its asserted value. The markets of north Europe received this fowl as coming from south Europe, directly or indirectly from Turkey. In France, on the other hand, it was called *dindon*, or, in the feminine, *dinde*, as if it were the fowl d'Inde—from India. English and German have so many words of analogous derivation that there should be no further dispute about the meaning in this case.

The wild turkey of America is without doubt the progenitor of all the relatives of this fowl the world over. Whether there was a variety, the original of the present domestic turkey, indigenous to the West India Islands, will probably never be satisfactorily settled. It is a supposition favored by many scientists. But it is a generally accepted view, irrespective of this detail, that all turkeys have descended in some way or other from the three forms known to-day as the North American, the Mexican, and the Honduras (Ocellated) varieties. There is a so-called turkey found in the forest regions of South America, especially Peru, but this bird is in reality not a turkey at all, although resembling it in some ways, so that the hunter after wild game is satisfied. For the ornithologist, however, it belongs to another family. Scientists are well agreed, therefore, that the turkey resides in the southern continent only as an immigrant, and that his native home, probably not far from that of primitive maize or Indian corn, must be sought somewhere north of the Isthmus of Panama.

The Mexican turkey, wild throughout that Republic, is called *Meleagris mexicana*; it is short in shank, the feathers of its body are metallic black shaded only slightly with bronze, while all its feathers are tipped with white. This appears to be the species first taken to Spain and other European countries. It is thought that the white markings of its plumage appear in the variety of domestic turkey known as the Narragansett.

The Honduras turkey is called scientifically *Meleagris ocellata*, and is to-day scattered well over most of Central America. The bird is extremely wild, and has a freer flight than its cousins of the North. It is the most beautiful in coloring of all the family. The head and neck are naked, the caruncles on them differing from those of others resident in less tropical regions, and no breast tuft is present. The ground color of the plumage is a beautiful bronze-green, banded with gold-bronze, blue, and red, with some bands of brilliant black. This bird can not be bred successfully nor domesticated away from its native heath, and even there it is more a wild bird in captivity than a sober inhabitant of the farm. It gets the Latinized terminization of its name because of the large and sharply defined spots characteristic of the longer feathers, giving them a fanciful resemblance to eyes. The same marking is more strikingly illustrated on the tail of the peacock.

The North American turkey, *Meleagris americana*, is the original species of the eastern United States. Its colors are black, beautifully shaded with a rich bronze, the breast plumage being dark bronze, illuminated with a lustrous finish of coppery gold. All this emblazoning the plumage with a distinctive brightness, and in the rays of the sun the burnished appearance comes out with striking brilliancy. The



A TURKEY HUNT AT CHRISTMAS TIME.

Turkey hunting has been a fascinating sport ever since America was discovered. During the early years of the "Winning of the West," even in the time of the Spanish exploration, this fowl was regarded as a very desirable food, and when the Anglo-Saxon settled the country the turkey was a favorite dish. The bird is not a rapid flyer, and it rises slowly, but is hard to stop. Heavy shot, therefore, or better yet, a rifle bullet, is the surer ammunition. For the market the hunter will creep into blinds beneath the branches of the trees in which turkeys roost and in this way secure many more than by trusting to his skill on the wing.

full-grown, healthy bird is a beautiful picture of bronze, black, copper, and gold.

Other varieties known in the barnyard, and even recognized among dealers as having distinctive markings, are in reality only highly developed fowls with preserved peculiarities. The *crested turkey* has a topknot, resembling the topknot on the Polish family among chickens. In the latter family, however, the skull has an unusual formation natural to this breed, but which with turkeys and ducks is



(Courtesy of Doubleday, Page & Co.)

A TURKEY ROOST IN WINTER TIME.

Turkeys in the wild state prefer the branches of low-lying trees for their perch. This habit of nature has been carried over into domesticated life, and farm turkeys must be given opportunity to carry it out. Even in winter they prefer out of doors, and only in extreme cold weather should they be induced to make use of a shelter or of a protected perch. Houses can be built for this purpose, but care must be exercised that they do not become too delicate by resorting to it unnecessarily.

an unnatural, that is, an anomalous growth. The *white turkey* is also only a developed breed. No benefit, consequently, can be derived from unnecessary subdivisions of the three great originals. As the growing of turkeys improved the stock, so the hardy American bird of the aborigines has become the prize fowl of to-day.

In the United States six standard varieties are recognized and grown. These are called the Bronze, Narragansett, Buff, Slate, White, and Black. The chief differences are in size and color of plumage. The Bronze and Narragansett are the largest, the Buff and Slate are the

medium, and the Black and the White are the smallest. The White seems, however, to have become a popular variety of late years, and has therefore increased in size until it now occupies the third place among many breeders.

The turkey has not been long under domestication, and consequently suffers from some unfortunate habits incident to captivity. Even as a home bird it loves freedom, and for healthy development demands a wide area over which to wander in search of food. It



(Courtesy of Doubleday, Page & Co.)

THE WHITE TURKEY.

In America the White variety is called the White Holland, because some think that it came originally from Holland, although they are not natural to that country. In England they are called Austrian Whites, where they have been known for over a hundred years. Probably the Whites are "sports" from other turkeys. In the United States the size and strength have been increased by breeding, although the infusion of blood from the Bronze variety has detracted from the color of the plumage.

suffers under confinement, and should not be compelled to live within the narrow boundary of a suburban farm. It must have space, with fields in which to wander and trees in which to roost. It will not seek the shelter of a house, such as is necessary for the domestic hen, except in the severest weather, but sits aloft on the branches, free and independent like its American progenitors. Neither can the turkey be inbred, but must always have fresh blood from a different stock if the offspring is to develop the highest type of fowl, both in the sense of appearance and of market value. In reality, the close



THE BRONZE TURKEY.

This variety holds the post of honor in all the turkey family. It originated from a cross between the wild and the tame turkey, and is the breed usually selected when special attention is given to size. Probably more of this variety are grown than of all others, and prize specimens have been produced which weighed over 40 pounds. The beautiful rich plumage comes from its wild progenitor, while the superiority in size is the result of domestication.

relationship of the modern turkey with its aboriginal ancestry is proven by the fact that the domestic bird has been known to mate with its wild and migrating cousin, to the decided improvement of its kind, as well as the profit of the farmer.

The young of the turkey are called "poults," and they are as tender as bantam chicks. They must be nursed with a care far out of proportion to the freedom they require when they begin to look after themselves. Probably to bring to maturity young turkeys in the wild state demanded even greater care, but the female is prolific, and,



(Courtesy of Doubleday, Page & Co.)

THE BARNYARD TURKEY.

Texas headed the list of States producing the fowl at the date of the census of 1900. Then came Missouri, Illinois, Iowa, Ohio, and Indiana. Rhode Island is noted for the excellence of the breed and the study given to the fowl, both as a scientific and commercial object. Although turkey raising is not a simple matter, the bird requiring more space than is found in a small farm, yet satisfactory profit is the general reward if proper attention is given to the business; and it is as simple to raise turkeys of superior quality as it is to raise those of inferior quality.

moreover, if she is deprived of her season's first brood, will frequently begin bravely again to lay the eggs and sit the second time for another family. Besides the enemy in the air, poults are exposed to hostile parasites and infectious microbes in the soil, and should be provided, therefore, with such clean and natural ground as they would find in natural conditions. They are at first helpless, almost senseless, little creatures, unable to feed themselves, often running around with open mouths as if they had no instinct for scratching their food from the earth beneath. If the mother does not attend to them, it is sometimes necessary to stuff the food down their little throats, until they

have acquired wisdom by practical experience. This is all a matter of ornithological technique, however, and can be found well discussed in farmers' bulletins of many agricultural departments and societies.

How did the turkey make his way around the world? He was transferred; that is to say, carried by the hand of man from one country to another and encouraged to propagate in an alien land, because he added one more delicacy to tickle the human appetite. Differing from fauna or flora that spread to the ends of the earth by the forces of nature, turkeys, like maize, would never have departed from their aboriginal habitat had it not been for human energy and desire. It is a slow bird, deliberate both in beginning flight and in the choice of its alighting. Interesting tales are told of the early days of turkey shooting along the banks of the Mississippi. How great flocks of the turkey used to gather for hours before the passage in the trees on the bank, scanning the opposite shore and gobbling about it to themselves as if they were to cross an unknown ocean. Finally they started, but lurched ahead, with the heaviness of a leaky galleon, and plunged exhausted into the swampy undergrowth at the river's edge. Here the hunter or perhaps some beast of prey would be lurking in concealment for the poor turkeys, who proved easy victims to their wily foe. Such sluggish migrants could never cross the Gulf of Mexico or the wider Atlantic Ocean by themselves. No; they were carried to Europe by the earliest discoverers as trophies from the New World.

CORTÉS mentions the turkey in one of his famous letters about 1518. He carried specimens of the bird to Spain in 1520, where they immediately became popular and were bred as a triumphant addition to the larder. It then became known as *paros*, his cousin, the more pretentious peacock, being distinguished by the term *pavo real*—the fowl of kings. The turkey was a long time reaching France, for the first bird eaten there, mentioned in history at any rate, was served at the wedding of CHARLES IX and ELIZABETH of Austria, June 27, 1570. This portion of the feast was supplied from Boston, Massachusetts, at that time an unknown settlement somewhere in the American wilderness. It seems to be admitted that the bird was introduced into England in 1524, where he soon became domesticated and assumed such local names as the Black Norfolk and Large Cambridge. It is an interesting fact that these descendants of the parent stock were carried back again across the Atlantic to New England, where, crossed with the original turkey already there, they began the breed that has spread from one end of the country to the other. In Europe they have become a permanent institution. Germany and France recognize the fowl as an indispensable factor in any holiday feast; in Spain, especially during Christmas time, the markets are alive with the Castilian vociferations of the bargainers, and the unavailing protests of the victims about to suffer from the results. In Madrid some of the prin-



Photograph by C. B. Waite, Mexico City.

TURKEYS ON THEIR WAY TO MARKET.

Just before the *fiesta* in any city of Mexico, the natives collect their fowls into flocks and march them along the highway to the central market place, where they are sold. It is a skill in directing his turkeys, sheep and hogs, and in making them escape from the flock. The same custom may be witnessed in Spain, where turkey raising has become as general as in America.



Photograph by C. B. Waite, Mexico City.

A NATIVE TURKEY MERCHANT.

The European explorers found the turkey domesticated in many parts of America. The fowl was one of the delicacies of the Mexican table. Since prehistoric times the Indians have cultivated it for the market, and many of the customs of sale are preserved, unchanged, to-day. The purchaser may select his choice in the village street, or the vender will bring the bird, alive and fresh from the farm, to the house door for inspection.

cipal streets are crowded with troops of these birds driven in from the country farms, while the Plaza Mayor, once the scene of the *autos de fe* of the inquisition, now is the center of a more innocent function, for in this square almost all the turkeys of the capital are offered for sale. The purchaser selects his live bird, which is then transported to the owner's home and butchered to make a Christmas holiday.

This noble fowl seems destined, therefore, to serve the appetites of man rather than to be an emblem uplifted on the banner of a race. Perhaps, after all, it is as worthy a function. His place is assured in the markets of the world. Time was when he could be bought for 10 cents, alive and gobbling. Five years ago the price of a bird ranged from 8 to 20 cents a pound, dressed, but the demand increases more rapidly than the supply, so that to-day he brings, dead, as much as that a pound, bones, feathers, and all. The census of 1896 reported a turkey supply in the United States of about 12,000,000, while that of 1900 showed only 6,500,000, the apparent decrease being due to the fact, as the Department of Agriculture sapiently discovered, that in the former year all birds and poults, all eggs in the nest as well as those expected, were enumerated. In the latter year only actual birds of three months or more were admitted to the count. Assuming a normal growth of 30 per cent, this would give about 9,000,000 turkeys, or almost one bird for every nine persons in the United States. The standard weight of a healthy fowl ranges from 12 to 36 pounds, but not more than half of this remains for food. It can be well understood, therefore, that there is scarcely turkey meat to go around, and that, until the growers provide the country more bountifully, some one must soon do without this luxury for the great national holidays of Thanksgiving and Christmas.

The turkey is indeed dedicated to these two joyous festivals. On this account he has won his place in literature. Essayists have made him the subject of their themes, and poets have occasionally sung his praises. Shakespeare, to be sure, was more attracted to his humorous aspects, and ridicules a character by exclaiming:

Here he comes, swelling like a turkey cock.

Pope can not avoid the ironical, although he recognizes the value of—

An hundred souls of turkeys in a pie.

But Gay strikes a truer note. He gives us a picture of a Christmas, in which—

From the low peasant to the lord
The turkey smokes on every board.

THE AMERICAN MUSEUMS

THE UNITED STATES NATIONAL MUSEUM.

THE Smithsonian Institution, of which the National Museum is a branch, both in its history and its purpose, is somewhat unique among institutions having a general educational aim.

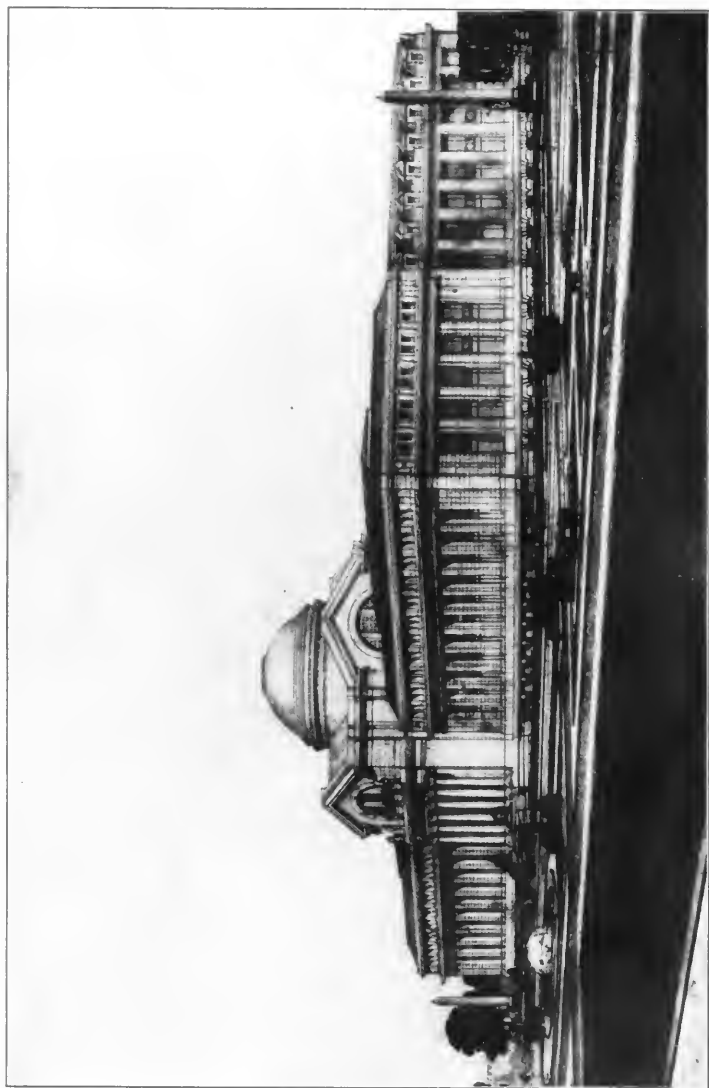
In July, 1835, the diplomatic representative of the United States in Great Britain was informed by a London firm of solicitors that through the death of Mr. HENRY J. HUNGERFORD at Pisa, in



PARTIAL VIEW OF LARGE EXHIBITION HALL IN THE MIDDLE WING OF THE NEW BUILDING FOR THE UNITED STATES NATIONAL MUSEUM. (As yet not completed.)

Italy, which occurred on the 5th of the preceding month, a conditional bequest in the will of Mr. JAMES SMITHSON, who died six years before, covering substantially his whole estate, became operative in favor of the United States, and that the value of this bequest was about £100,000.

Upon investigation it was found that in his will, dated October 23, 1826, Mr. SMITHSON had left the income of his property for life to his nephew, HENRY HUNGERFORD, with the provision that at his nephew's death the whole property should go to such children as this nephew might have, but in case there should be no such children



NEW BUILDING OF THE UNITED STATES NATIONAL MUSEUM, WASHINGTON, DISTRICT OF COLUMBIA.

Perspective view of the building as it will appear when finished. Taken from the southeast, and showing the south or main front and the east side.
Hornblower & Marshall, architects. Reproduced from a water-color drawing by E. M. Leachman.

then that the whole estate should go to the United States of America to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." This was all. There were no further directions in the will or elsewhere, and in these few lines is contained the whole history of JAMES SMITHSON'S connection with the United States and with the institution he in this manner founded.

He was unknown in the United States, had never visited the country, nor is there any further record that he ever had any interest in the country or its institutions. He had been a man of retiring habits, a chemist and mineralogist of repute, and fellow of the Royal Society of London. He was born near Bath in 1765 and took an honorary degree at Oxford in 1786, at which time and several years later he was known as JAMES LEWIS MACIE. He had enjoyed a very liberal allowance from his father, and in addition had received legacies from his father's half sister and his own half brother, the latter the father of SMITHSON'S nephew mentioned in the will. From these sources he accumulated the fortune which came finally into the possession of the United States in accordance with the very singular provision in the will.

As giving an insight into the circumstances under which JAMES SMITHSON made this bequest, Prof. LOUIS J. AGASSIZ, the celebrated naturalist, a number of years before his death, in a letter discussing the management of the Smithsonian Institution, said:

In this connection I ought not to omit mentioning a circumstance to which the United States owe the legacy of SMITHSON, which I happen accidentally to know and which is much to the point in reference to the controversy concerning the management of the Smithsonian Institution. SMITHSON had already made his will and had left his fortune to the Royal Society of London when certain scientific papers were offered to that learned body for publication. Notwithstanding his efforts to have them published in their transactions, they were refused, upon which he changed his will and made his bequest to the United States. It would be easy to collect in London more minute information upon this occurrence, and should it appear desirable I think I could put the committee (of Congress) in the way of learning all the circumstances.

If Professor AGASSIZ was not misinformed, a very unlikely fact, the Smithsonian Institution owes its origin to pique.

The amount received by Mr. RICHARD RUSH, the agent of the United States, and brought by him on August 28, 1838, to New York on the ship *Mediator* in gold sovereigns, and which represented the SMITHSON bequest, was something in excess of £100,000. This was after the payment of all costs of the chancery suit and other expenses. In United States currency it netted \$508,318.46. A small part of the bequest was left in England to secure certain interests under the will, which amount was subsequently turned into the fund.



NORTH FRONT OF THE SMITHSONIAN INSTITUTION BUILDING.
From a photograph taken in 1871.

By direction of the Secretary of State, Mr. RUSH deposited the money in the Treasury of the United States. Here it remained for eight years, awaiting the action of Congress as to its disposition. During these eight years the matter was again and again considered, both in the House and in the Senate, but without result. There was a considerable party in favor of returning the money to England, upon the ground that it was not within the constitutional power of the Government of the United States to accept or to administer a trust of this character. Even among those in favor of the trust, there was no consensus of opinion as to the purpose of an institution "for the increase and diffusion of knowledge among men." Dozens of propositions were made for universities, and other schools, for research work in many different lines, and for libraries and museums, but upon none of these propositions was there at first any agreement.

In the Twenty-ninth Congress of the United States, which convened in December, 1845, a bill to establish the Smithsonian Institution was introduced in the House of Representatives by Hon. ROBERT DALE OWEN, of Indiana, and this bill, with changes and modifications, became the fundamental act creating the Institution. The bill was, on December 19, referred to a select committee consisting, besides the author, of JOHN Q. ADAMS, TIMOTHY JENKINS, G. P. MARSH, ALEXANDER D. SIMS, JEFFERSON DAVIS, and DAVID WILMOT. These names are all prominent in American history. Mr. ADAMS had been President of the United States, Mr. DAVIS was afterward Senator from Mississippi and Secretary of War in BUCHANAN'S Cabinet and finally president of the southern confederacy, Mr. WILMOT became the author of the Wilmot Proviso, one of the landmarks in antebellum slavery agitation, in which agitation ROBERT DALE OWEN was one of the leading figures on the abolition side. The other members of the committee, Messrs. MARSH, JENKINS, and SIMS, are scarcely less well known in the history of the United States.

The bill both by action of the committee and by amendment in the House received substantial changes, and was passed on April 29, 1846, by a vote of 85 yeas and 76 nays. Mr. SIMS, of the select committee, voted in the negative; Mr. JENKINS is not recorded as voting; all the others voted in favor of the bill.

The bill passed the Senate on August 10, 1846, and was signed by the President and became law on that day. The vote in the Senate was, yeas 36, nays 13. DANIEL WEBSTER supported the bill and JOHN C. CALHOUN opposed it.

In the act the purposes of the Smithsonian Institution are very broadly indicated. A Board of Regents is in control, and a secretary is the chief executive officer. The original board named in the act was authorized to select a site and erect a building "with suitable rooms or halls for the reception and arrangement, upon a liberal



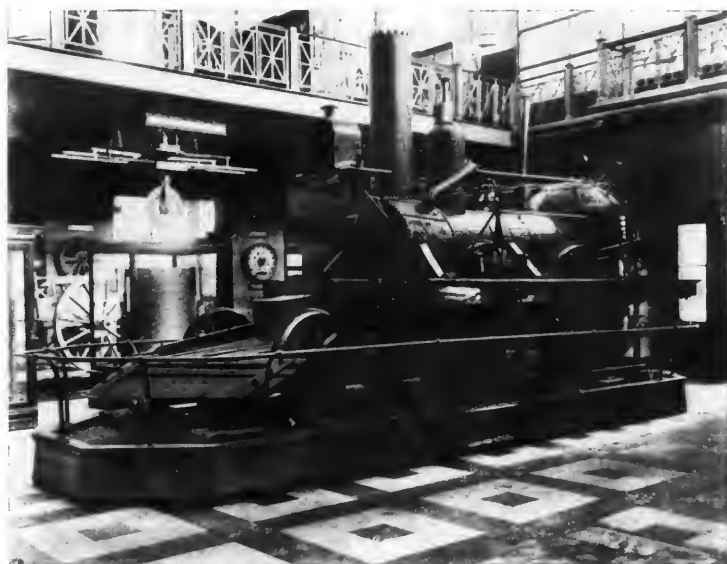
NORTH FRONT OF THE OLD NATIONAL MUSEUM.
Situating to the east of the Smithsonian Institution. The collections will be moved from here to the new building when completed.

scale, of objects of natural history, including a geological and mineralogical cabinet; also a chemical laboratory, a library, a gallery of art, and the necessary lecture rooms."

At this time the State Department had in its possession the books and manuscripts of Mr. SMITHSON, which had been sent from England, together with a mineral collection made by him.

In the act it was provided that this property should be turned over to the Institution and also that—

In proportion as suitable arrangements can be made for their reception, all objects of art and of foreign and curious research and all objects of natural



"JOHN BULL," LOCOMOTIVE NO. 1 OF THE CAMDEN AND AMBOY RAILROAD.

This engine was built in England in 1830 and was among the first imported for use on American railroads. It was in effective service for forty years, and was employed to haul a train of cars to the Centennial Exhibition at Philadelphia in 1876. The pilot was added in the United States.

history, plants, and geological and mineralogical specimens belonging or hereafter to belong to the United States which may be in the city of Washington, in whosoever custody the same may be, shall be delivered to such persons as may be authorized by the Board of Regents to receive them and shall be arranged in such order and so classified as best to facilitate the examination and study of them, in the building to be erected for the Institution, and the Regents of the said Institution shall afterwards, as new specimens in natural history, geology, or mineralogy may be obtained for the museum of the Institution by exchanges of duplicate specimens belonging to the Institution, which they are hereby authorized to make, or by donations which they may receive, or otherwise, cause such new specimens to be appropriately classed and arranged.

These two quotations give substantially everything contained in the act which in any way defines the object, purpose, and scope of the



WEST HALL, NATIONAL MUSEUM BUILDING, EXHIBITION OF ETHNOLOGY.

This arrangement is characteristic of the method adopted in the Museum to permit easy access by the public.

Smithsonian Institution, and it will be seen that the museum idea is a fundamental idea of the Institution.

The accumulations of interest added to the principal fund at the time of the foundation of the Institution amounted, in all, to about \$750,000, since which time the Smithsonian capital fund has been increased by gifts to nearly \$1,000,000. The building provided for in the act was completed in 1855.

The nucleus of the present National Museum was accumulated in the years between the return of Mr. RUSK to New York with the



GROUP OF BISON OR AMERICAN BUFFALOES.

These animals were collected and mounted by W. T. Hornaday for the National Museum at Washington, District of Columbia. They are of particular value as representing a distinct American animal at one time very abundant but now practically exterminated in their native condition. A few herds have been preserved in government parks and zoological gardens.

SMITHSON legacy in 1838 and the passage of the act in 1846. This was done by a society known first as the National Institution and afterwards as the National Institute, organized for the express purpose of directing the SMITHSON bequest and of engaging in the pursuit of objects in consonance with Mr. SMITHSON'S will. The museum of the society occupied rooms in the Patent Office building and came to be recognized as the proper place for the deposit of government collections. During the life of the society—it became inactive in 1846 and ceased to exist in 1862—it gave its principal efforts to collecting art and natural history specimens. These were collected both from private and from official sources, the most important among the latter being the United States exploring expedition around the world in the years from 1838 to 1842.



FAMILY GROUP OF THE SMITH SOUND ESKIMO.

These figures are natural size, and illustrate in a lifelike manner native costumes and habits.

The foundation act of the Smithsonian Institution in effect made the museum an integral part of the Institution by giving to the latter custody of the national and other collections specified in the act. No date was assigned for the Regents to accept the obligation, and believing the income from the SMITHSON fund to be inadequate for the support of so great an undertaking, the collections were not removed from the Patent Office until in 1858, twelve years after the foundation of the Institution and three years after the completion of its building. This was done after Congress appropriated money for building cases, for the removal, and in part for the care and preservation of the collection.

Meanwhile the Institution itself had begun the foundation of a museum collection, its first specimens being the small but valuable mineralogical cabinet of the founder, MR. SMITHSON. The SMITHSON collection was destroyed by fire in 1865.

The purpose of the first executive officers of the Institution was, and such has been the purpose of those following, to make the collection one of scientific value. To this end the services of private persons, fur traders, explorers, army and navy officers, have been enlisted in the cause.

The title "National Museum" was first recognized by Congress in 1875 and came into general use at the time of the display of the Government collection at the Centennial Exhibition in Philadelphia in 1876.

This exhibition, both in the objects displayed and the method of display, was a revelation to the American people who were familiar with only the small cabinets of college or local museums. At the close of the Centennial Exhibition the Government collection was returned to Washington, and it was recognized that special provision must be made for the National Museum as such. An appropriation was made for the erection of a suitable building, which was completed in 1881 and is 300 feet square, not counting the four corner projections. Congress assumed the expense of maintaining the National Museum, to continue under the direction of the Smithsonian Institution.

The Museum outgrew this building, extensive as it was, so that in 1904 an appropriation was made for a second building, with cost limited to \$3,500,000. This building was completed this year, 1909. It is located on the Mall, directly facing the Smithsonian Building, and is a massive and dignified structure, four stories in height and built of white granite. It has a frontage of 561 feet, a depth of 365 feet, and a height of 82 feet.

The Museum is divided into departments of Natural History, including Anthropology, Biology, and Geology, the Arts and Sciences, and a National Art Gallery. The whole is under the control of the Secretary of the Smithsonian Institution, with an assistant secretary in charge.



FAMILY GROUP OF ZUNI INDIANS.



EASTERN MOOSE.

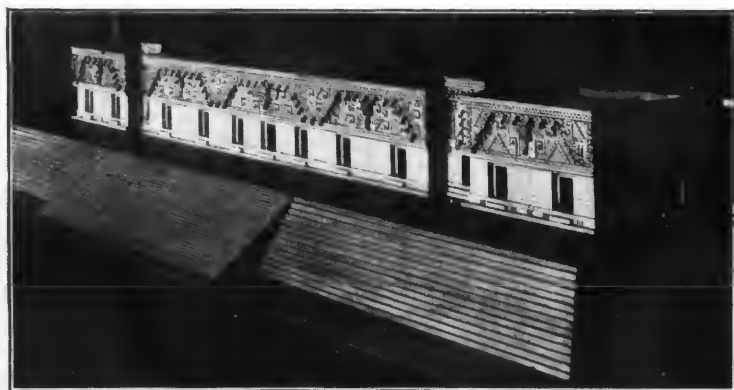
Designed by William Hornaday and executed by J. Palmer and A. H. Forney. This specimen of a distinctly American animal is one of a number collected in Maine, Nova Scotia, Quebec, and Ontario.

Anthropology has nine divisions: Ethnology, Physical Anthropology, Historic Archeology, Prehistoric Archeology, Technology, Graphic Arts, Medicine, Historic Religions, History.

Biology has eight divisions: Mammals, Birds, Reptiles and Batrachians, Fishes, Insects, Mollusks, Other Marine Invertebrates, Plants.

Geology has five divisions: Physical and Chemical Geology, Mineralogy, Invertebrate Paleontology, Vertebrate Paleontology, Paleobotany.

In general the collections are of two classes, those objects which are exhibited in the cases to the general public, and those which are not. The former are the exhibition series and constitute the Museum as seen by the ordinary visitor. These objects are arranged, labeled, and classified in glass cases. The latter is the record and study series which are preserved for the use of scholars and specialists.



HOUSE OF THE GOVERNOR, UXMAL, YUCATAN.

The model of this aboriginal building was developed by careful research in the ruins found in Yucatan, Mexico. It is a wonderfully fine specimen of prehistoric American architecture.

The record collections of the Museum have grown until the total number of specimens now numbers over 6,000,000. Not all the material has been studied and classified, but as fast as this is done by the large scientific staff of the Museum it is placed in the record series.

In order to admit of examination and study by those not connected with the Museum, access to the reserve or study series is given to all properly qualified persons engaged in original research. This privilege is taken advantage of by scientists from all over the world who visit the Museum for the purpose of study. It is one of the world's great libraries of natural and art objects.

Occasionally material is sent to representatives of other institutions for study and comparison. This is in addition to the regular exchange of duplicate specimens which is constantly carried on with

ANCIENT CLIFF DWELLING, RIO SAN JUAN, COLORADO.



institutions and private collectors all over the world and which is in itself one of the main sources from which new specimens are derived.

As a branch of the more popular educational work of the museum, of which the exhibition series is itself the principal exponent, is the sending of classified collections in particular subjects to colleges and schools. These collections are made up from duplicate and surplus material, are classified and labeled and arranged in carefully select sets.

The National Art Gallery, a department of the Museum, while it has not yet attained the rank of the great galleries of Europe, is well on the road to attain such rank. Hitherto want of proper space for exhibition purposes has made what is even now a really fine collection, particularly of paintings, more or less unknown as such, and the name National Art Gallery has not that significance in the world that it deserves. The old collection which began in the days of the National Institute has been added to from time to time. Most prominent among these additions is the collection of Mr. WILLIAM T. EVANS of works of contemporary American artists and Mr. CHARLES L. FREER'S collection of American and Oriental art, which have been donated to the National Gallery.

The Secretary of the Smithsonian Institution and chief executive officer is Dr. CHARLES D. WALCOTT and the Assistant Secretary in charge of the National Museum is Mr. RICHARD RATHBUN. Mr. RATHBUN, a man of broad scientific knowledge, and in the particular field of biology of international reputation, has under him a large corps of specialists whose work of identifying, arranging, and classifying material has been of the greatest value not only to the scientific world but also to the cause of popular education.





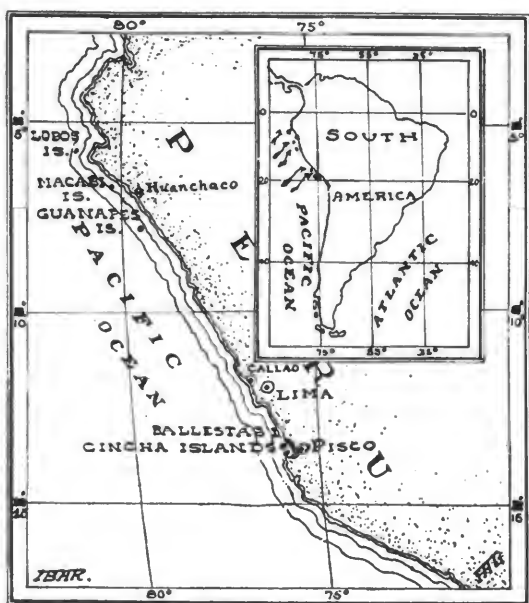
STONE IMAGE OF ANCIENT CONSTRUCTION FOUND IN EASTER ISLAND, SOUTH PACIFIC OCEAN.

These curious relics of a forgotten epoch have no authentic history and the natives of the island have preserved no traditions relating to them. The National Museum at Washington, District of Columbia, has one of the few images for public exhibition.

THE GREAT GUANO DEPOSITS OF PERU ∴

ON the coast of Peru, opposite the bay of Piteo, nearly midway the equator and the tropic of Capricorn and something over 100 miles south of Callao lie the Chincha Islands.

These islands and the mainland opposite are in the dry zone of Peru, the *zona seca*, in which rain so seldom falls that aged men can count on the fingers of one hand the times in their lives



MAP SHOWING LOCATION OF THE GUANO ISLANDS.

when they have seen this marvelous thing—water falling from the skies.

These islands are small, high and rocky, barren and uninviting to the last degree, yet out of them has come wealth to stagger the dreams of oriental imagination. One thousand million dollars has been paid for the guano of the Chincha Islands. Reckoned in gold it would take 15,000 heavily laden pack mules to transport the weight, a train perhaps 30 miles in length.

It is doubtful if there be another spot of equal size on the earth's surface from which so much wealth has been taken as from the guano beds of the Chincha Islands.

But these islands were not the only source of Peruvian guano. The Macabi, the Guanape, the Lobos, the Ballestas, and the Huanillos and the Pabellon de Pica have also furnished quantities of guano. Besides these there are scores of small islands and points along the mainland where guano exists.

The word "guano," or "huano," is the Spanish rendering of the Peruvian word *huano*, meaning excrement. There are many varieties of Peruvian guano having different fertilizing values due to their different chemical constituents, but these were all more or less alike in their origin. They were all mainly the excrement of marine birds mixed with the remains of the birds themselves and perhaps some fish or seal remains.

The deposits were from the most recent to the very old. In some cases on the Chincha Islands they reached a depth of 160 to 180 feet. The lower strata of such deposits might be thousands of years old.

Nowhere else in the world are marine birds found in so great quantities as along the west coast of South America from Panama south to Chile. The great majority of these birds have their roosts and breeding places on the Peruvian Islands or on points of the mainland. Their presence in such immense numbers is due to the quantities of fish found along these coasts, upon which the birds feed. Cormorants, pelicans, sea gulls, marine crows, etc., in clouds numbering hundreds of thousands may be seen at any time flying low to or from the islands or hunting their food. But the birds alone could not have produced the Peruvian guano; it was necessary to have the rainless climate of these islands in order to accomplish the result.

There are hundreds of bird islands in other parts of the world, some in the United States, but the excrement and remains of the birds found thereon is not Peruvian guano, although the deposits may be valuable for fertilizing agricultural lands. Even with the Peruvian guano chemical analysis shows great differences.

Manures are of three kinds, as supplying the three constituents needed for plant life, nitrates, phosphates, and potash. These constituents are found in a natural state in all good soils, although generally not well balanced, nor are the two latter found always in an available form. The constituent most often wanting is the nitrogenous, and this is the one most easily lost and most costly to supply in any artificial form.

All excrements contain fixed nitrogen in the form of urates and salts of ammonia, but these are to a large extent lost unless the



CORMORANTS.
Photograph from American Museum of Natural History.

manure is at once applied to the land, and even then the nitrogen may be washed out before it can be made available for plant growth. When left exposed to a humid atmosphere for any length of time or rain is allowed to fall on it the fixed nitrogen is rapidly leached out. It is on this account that Peruvian guano, in its natural state, never having been exposed to rain or dampness, has retained its nitrogenous properties, and is more valuable than other guanos. Some Peruvian guano contains all three elements of plant life, and all of it contains the two elements—phosphates and fixed nitrogen. The latter, as has been said, is the most valuable element from a commercial standpoint.

When first sent to Europe guano was sold at a fixed price per ton without regard to its chemical analysis. This price was at first as



TAKING OUT THE GUANO.

low as \$40 or \$50 per ton, but later rose to \$60 and \$70. Subsequently the price was made to depend on analysis, and on the London market, which set the price, it was estimated at 19s. 2d. each unit per cent per ton for the nitrogen and 2s. 3½d. on the same basis for the phosphates, the latter calculated as tricalcic phosphate and the former as ammonia.

The proportion of ammonia varies in the different guanos and in different layers of the same deposit. It may run from a very low percentage up to as high as 25 or even more in the best samples of Chinchu guano. The phosphates may run from 20 or 30 up to 75 or 80 per cent. First-class Peruvian guano is such as contains above 10 per cent ammonia.

When the Spaniards came first to Peru they found the natives using guano on their crops of maize, aji, and alfalfa. The deposits were regularly worked, and each village had its proportion of guano from the islands allotted as a necessary element in growing crops, just as it had its proportion of water from the great irrigation canals coming down from the high Andes. The Incas were skilled agriculturalists, the early Spanish settlers in Peru were not, so both the irrigation works and the application of guano fell more or less into disuse. But its use was never entirely abandoned, and was known to Spanish writers during the sixteenth, seventeenth, and eighteenth centuries, although practically unknown to the rest of Europe and to North America until well in the nineteenth century.

The credit of first bringing it to the serious attention of Europe is ascribed to Humbolt, who in 1804 brought a specimen from the Chincha Islands, which was analyzed by several of the leading European chemists. But it was not even then that its value was fully recognized, and not until Liebig had taught the world the value of artificial manures that Peruvian guano was estimated at its true worth. In 1840 a firm of Lima merchants sent the first cargo to Europe, consigned to a Mr. MYERS, of London. Two years afterwards the amount transported to England was 182 tons, and twenty years thereafter, in 1862, it was 435,000 tons. Between 1851 and 1860 the amount of shipping that loaded at the Chinchas represented 2,860,000 tons, and between 1853 and 1872 guano to the amount of 8,000,000 tons was shipped from the north and middle islands. In this last year the Peruvian Government prohibited the further export of guano from this group.

The Guanape Islands, about 30 miles from Santa, were first worked in 1869, and in three years 838,853 tons of guano were taken off. These are two small islands, the larger less than three-fourths and the smaller less than one-half mile across. About 60 miles north of the Guanapes and 30 miles from Huanchaco, the port of Truxillo, are the three Macabis. Shipment of guano began from these islands in 1870, and two years later the quantity of the deposit remaining was estimated at about 400,000 tons. These islands are all north of Lima; the Chinchas are to the south.

Still farther north and near the Ecuador border is the Lobos group. The outer island of this group, Lobos de Afuera, contained a very large deposit, and the inner island, Lobos de Tierra, another deposit of considerable extent.

However, prior to the war with Chile, which began in 1879, the principal source of exports of Peruvian guano, after the exhaustion of the Chincha deposits, was from Tarapacá, the most southern province of Peru, and which was ceded to Chile at the close of the war in 1884.

These deposits were carefully examined in 1874 and found to exist at the north point of the table-land, which extends to the river Loa

in $21^{\circ} 23' S.$, on an elevated cliff called "Huanillos," in $21^{\circ} 15' S.$, and at Pabellon de Pica, an immense cone rising out of the sea 1,000 feet, with slopes formed of guano deposits, in $20^{\circ} 58' S.$ There were smaller deposits at Chomache, Islotas de Pajaros, Quebrada de Pica, and at Patache.

Estimates as to the original amount of these deposits varied, but it was probably in the neighborhood of 2,000,000 tons. In 1876 there were more than 300 ships taking cargo from these southern deposits.

After the exhaustion of the principal deposits on the Chinchas—all the deposits were not exhausted, the decree 1872 prohibiting



CHUTE FOR BRINGING DOWN GUANO.

export preventing this—the export of guano fell off. The amount shipped from this date until the breaking out of the war with Chile was still considerable, about 350,000 tons or over a year. This represented an annual value of over \$20,000,000.

During the war the guano industry fell into the hands of the Chileans. By a decree February 9, 1882, the Chilean Government ordered a sale of 1,000,000 tons of guano, half the proceeds of which were to go to the Peruvian creditors. By the treaty made by Chile with the Iglesias government, which was ratified in March 8, 1884, and which ended the war and the Chilean occupation, Tarapacá, with the southern guano and nitrate deposits, were unconditionally ceded to Chile. Peru retained all the remaining islands,

but the industry was for the time destroyed. The best deposits were worked out, and though during the sixties and seventies a stream of gold reckoned in units of millions had been poured into Peru, the country had but little after the Chilean war to show for it. But the guano beds were not depleted, and the myriad web-footed birds sailed up and down the coast, nightly sought its rocky islets, and there bred and reared their young. Guano making was still going on, and with a policy of conservation Peru might draw for centuries a large revenue from the industry. The swarms of fish in the ocean, the rainless climate, and the birds were there. It was then that the policy somewhat similar to that applied by the United States in preservation of the fur-seal herd of the Alaska islands—which policy was successful until the coming of the pelagic seal hunter—was adopted in Peru for the exploration and preservation of the guano industry.

In 1890 a contract was entered into with the Peruvian Corporation, which had taken over the state railways, giving it the exclusive right to export guano up to 3,000,000 tons. Under this contract the corporation has worked ever since, and the receipts from guano have risen to over \$1,500,000 a year.

This contract has not always worked smoothly; there have been many disputes in relation to it, but at the present time these have been for the most part adjusted.

In all the corporation has exported in eighteen years about 1,000,000 tons of guano. The shipments in 1898 amounted to 21,826 metric tons (of 2,204.6 pounds) and in 1899 to 30,795 tons. Since then the amount has increased. In 1905 it was 73,369 tons, worth £285,729; and in 1906, 90,413 tons, worth £361,652. It can be seen that Peruvian guano has not deteriorated in quality and is still the highest priced and most valuable fertilizer in the world. The exports in 1906 were to five countries—Great Britain, 30,234 tons; Belgium, 26,198 tons; United States, 16,155 tons; Germany, 15,388 tons; and Holland, 2,438 tons. In 1907 about 106,000 tons were taken from the islands, of which amount about 80,000 tons were exported and the remainder used locally. During the year 1909 the only guano exported is that from the islands north of Callao. The deposits to the south are reserved for the uses of domestic agriculture.

No complete survey has yet been made showing the amount of guano deposited on the islands each year. In a report made in March, 1908, to the Minister of Fomento by Mr. ROBERT E. COKER, who had studied the subject in reference to the Ballestas, in one season there were deposited 2,000 metric tons, covering about 20,000 square meters, and on the south island of the Chinchas the deposit covers 60,000 square meters and amounts to 5,000 tons. This guano is of the very best quality.

These two deposits cover a comparatively small part of the territory. The report deals only with two of the groups and of one island only of one of them. On the Guanapes, the Manabis, the Lobos, and the other islands to the north the deposits are many times greater, and if properly protected can be made to yield a sum much greater than that now derived through the Peruvian corporation.

The methods used in working the deposits have not been the best, but these methods are being improved.

Under the old Inca civilization of Peru the guano islands were apportioned to the several provinces of the Empire; the deposits were



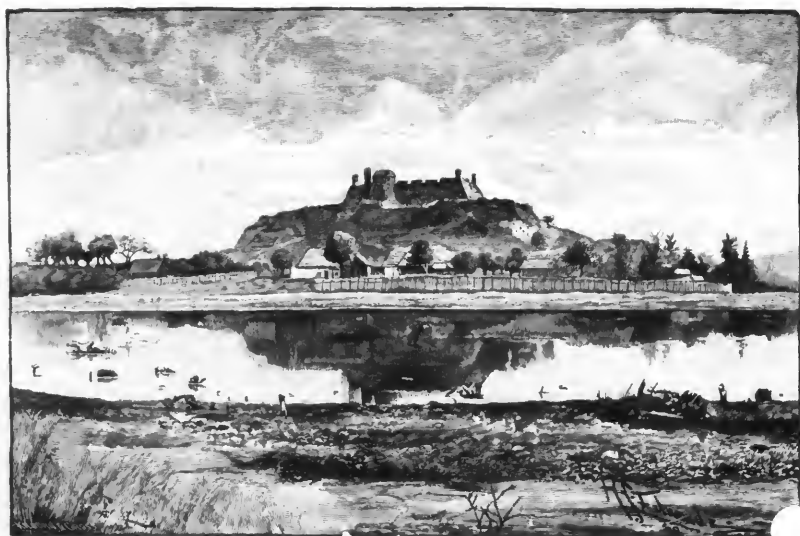
SHIPS LYING OFF SHORE WAITING TO LOAD GUANO.

carefully guarded and the manure fairly divided. Closed seasons were enforced and care exercised that the birds were not unduly disturbed. It has been the policy of the Peruvian Government in recent years to revive the old Inca regulations enforcing closed seasons and rotation in digging.

By a decree of December 28, 1904, the digging of guano between the months of February and November was prohibited under a penalty of \$1.95 per ton. This is the beginning of legislation in the right direction for the preservation of this one of the most valuable assets of Peru.

CARTAGENA: "THE HEROIC CITY"^a

"CARTAGENA DE INDIAS," as it was termed by the ancient governments, on the north coast of the Republic of Colombia, now spoken of in Colombia as the "Heroic City," has more of the tragic and melodramatic in her history perhaps than any other city on the Western Continent. The stage settings about which the many events took place are to be seen



THE OLDEST FORTRESS IN AMERICA, CARTAGENA.

yet, arranged to the various effects in the tragedies and dramas which occurred in the earlier periods of its existence.

Older than any city of America and the New World except Santo Domingo and Mexico, and founded by virtue of royal decree which declared it a "Very Royal and Loyal City," it has retained more of its early characteristics, perhaps, than all the others. The medieval flavor surrounds it. Its antiquity is everywhere in evidence, and the air of romance hangs over it. One feels it, sees it, hears it at every step within its old, battlemented walls.

^a By ISAAC A. MANNING, Consul of the United States of America at La Guaira, Venezuela.

When BASTIDES first took refuge within its harbor in 1501 he declared it the natural point for a city, and PEDRO DE HEREDIA, who was to govern it through many vicissitudes, and finally die in shipwreck on the shore of his native land, whither he had gone to answer charges of his enemies, was given the first warrant as Governor of Cartagena. He established the city in 1533, and the following year the King of Spain sent there a bishop of the church. From that time to the end of Spanish rule no place on the Spanish Main suffered more changes from prosperity to adversity, and vice versa.



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.

Here came the gold of the Perus for shipment to Spain, and, as the capital, it was the center of attraction for all sorts of adventurers. The frequent visits of pirates and buccaneers led the King of Spain to authorize the wonderful series of defensive works which encompass the town and harbor and which stand to-day as monuments to the constructive skill and engineering craft of the old Spaniards. The ramparts, battlements, and general series of fortifications are so constructed that they are declared faultless from the view point of military engineers. They are all remarkably well preserved and are unique, in that their counterparts are not to be seen anywhere

else in the New World. Built of coral stones, many of them so huge in size that one wonders how they were handled, they are laid in a concrete, the mixture of which seems to be an entirely lost art. This is proven through efforts of the modern workmen to repair breaks



VIEW OF CARTAGENA.

in walls and walls, which repairs show no such strength as the old works of centuries ago.

Here came, before these monuments and donjons were built, such jolly visitors as ROBERT VAAL, MARTIN COTE, SIR FRANCIS DRAKE,



CARTAGENA HARBOR.

the SIEUR DE POINTES, DU CASSE, and other rovers, each being remembered by what he took away rather than by what he left; and the scenes of their exploits are pointed out. Among others, at the old convent of Santa Candelaria, on the top of the hill called "La

Popa," lying back of the town, and which serves as a landmark to mariners passing that way, the white or light yellow buildings being visible for many miles at sea, one is shown where one of these gentlemanly fellows, in the spirit of pleasantry which so frequently manifested itself among them, is said to have hurled the nuns, who then held solitary worship there, over the edge of the perpendicular cliff on which the monastery and convent stand.

This old convent, one of the points which would first attract the curious attention of the tourist, was founded in 1608, and in the story of its foundation, it is said, the Holy Virgin appeared to Friar ALONZO DE LA CRUZ PAREDES, then at Bogota, ordering him to go at once to Cartagena and there to erect a convent on the top of the



COLOMBIAN MAN-OF-WAR "CARTAGENA," FORMERLY THE PRIVATE YACHT OF THE SULTAN OF MOROCCO.

first high hill which he should see immediately near Cartagena: for in that hill lived the malignant spirit which was worshipped in the form of an animal by the Indians, and whose worshippers called the spirit "Uri, Uri, Busilace, Veni." This idolatry, it is reported, was confessed by a man of mixed blood, LUIS ANDREA by name, many years afterwards. ANDREA was said to have had a pact with the devil, and this fact and his other sins were found out by the famous "Holy Office," or Inquisition, in its own mild and persuasive way. To show its full appreciation of ANDREA's confession, report says, the court mentioned had him burned at the stake.

The Inquisition sat here from 1610 to 1821, and among the many interesting structures of the city is the house, now occupied as a private dwelling, where this famous judicial body held its court.

There are any number of wonderful old churches, in all styles of architecture and in all conditions of repair or ruin, now being occupied for all manner of uses. Many of them date from the sixteenth century, but the greater number were erected in the seventeenth. Among the older is the convent of Santo Domingo, occupied as a Dominican monastery to-day, and for which the King of Spain, in 1730, authorized the collection of money to be used in its repair, stating that "owing to its antiquity this convent is rapidly falling into ruin." It was erected in 1539, and is a most enchanting old place, with a chapel in which are three wonderful flat arches. The cathedral was erected soon after, and in this will be found paintings of all



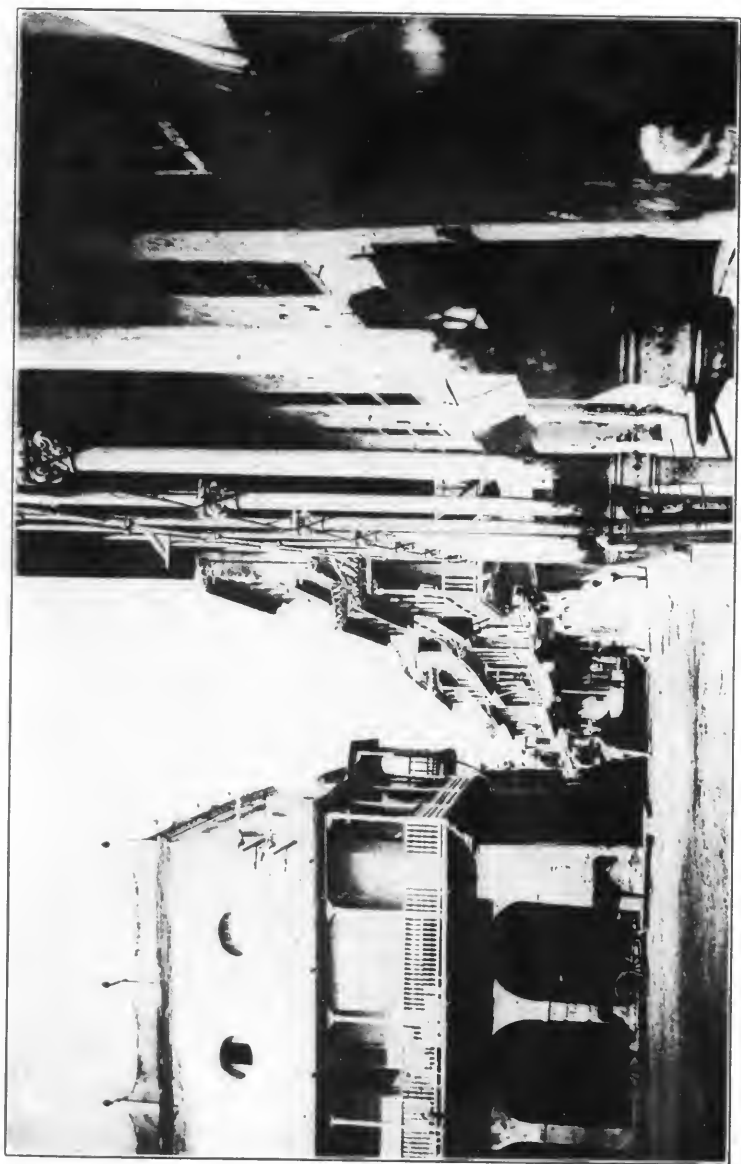
STREET SCENE IN CARTAGENA.

the former bishops, and some wonderful examples of wood carving. Here is also one of the finest samples of Italian marble in the New World. This is a pulpit which is said to have been intended for Lima, Peru. The ship in which the pulpit was shipped was wrecked at Cartagena, however, and the pulpit is said to have floated ashore. Reshipped later, the second vessel met the fate of the first, according to tradition, and the altar again appeared upon the beach. This was taken as an evidence of the Divine will that this altar should remain at Cartagena. However that may be, it is there, and admired by every lover of sculpture who sees it.

One of the prettiest chapels of the city is in connection with the hospital, formerly the convent of the Santa Clara nuns. In this the altar is a wonderful piece of gilded carving, and the pulpit erected, nobody seems to know when, is of the most artistic workmanship, inlaid, and the panels set with beautiful paintings.



A PART OF THE WALL SURROUNDING CARTAGENA.



LOZANO STREET, A TYPICAL STREET IN CARTAGENA.

In the church of San Pedro Claver lie, in a vault beneath the altar, the bones of the famous saint whose name the church bears. Visitors are shown these bones which seem to bridge the chasm of centuries when it is remembered CLAVER'S service as priest to the negroes was in the early seventeenth century. These are the remains of America's only saint, so far as I can learn, he having been canonized by Pope LEO XIII in 1888.

In fact, nearly all the old churches and their contents, where the church buildings have not been taken for other uses, are worthy both



THE BATTLEMENTS OF FORT SAN FELIPE DE BARAJAS, CARTAGENA, WHERE VERNON'S TROOPS WERE DEFEATED.

It is presumed the troops were led by Col. Lawrence Washington in this attack.

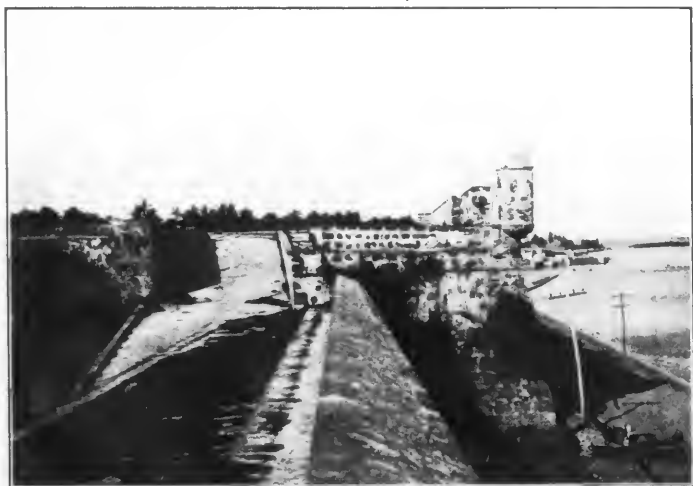
time and study, for I believe that little is known of their real treasures, and that Cartagena is so little known is a source of wonder to anyone who has an opportunity to see its quaintness and know some of its rare antiquities.

San Felipe de Barajas, an old castle and fort lying on a low hill overlooking the city, is full of interesting underground passages, as are many of the fortifications, and although utterly abandoned and falling into ruin, is still a formidable stronghold.

Tradition has it that the underground passages, entrances to which are open, and which in recent years have been explored for short distances, formerly connected the stronghold with the convent of Santa Candelaria on the Popa and also with the house of the inquisition, the cathedral and the church of San Pedro de Claver, which was formerly the church of St. Jean de Dieu.

San Felip was the most formidable of all the series of intrenchments outside the city walls, and withstood the attack of the British Admiral VERNON's soldiers after he had captured all the other forts about the harbor.

One thing that lends interest to the history of this old castle and VERNON's memorable siege of Cartagena in 1741 is that LAWRENCE, older brother of GEORGE WASHINGTON, was the ranking captain of colonial troops under VERNON, and that without doubt took part in the attack on this old fort, which ended in the defeat of VERNON's effort to capture Cartagena. Colonel WASHINGTON died after his return to Virginia from a disease contracted while engaged in that campaign. He visited the islands of Barbados, Trinidad, Nevis, etc.,



A CORNER OF THE BATTLEMENTED WALL, CARTAGENA.

seeking health, and GEORGE WASHINGTON accompanied him for a while; but he soon returned home to his deathbed. It was Colonel WASHINGTON's connection with VERNON in this siege of Cartagena which led to his naming his country seat "Mount Vernon," which place after his death became the property of his brother, the future "Father of his Country." It is well known that many of VERNON's troops, in his attack on New Spain, were from the Colonies.

In this article there is room to touch but incidentally on the riches of antiquity which lie open to the casual traveler who visits "the heroic city." But I feel sure, without entering into the odiousness of comparison, that no other city on the West Indian routes of tourist travel offers so much of interest to the sight-seer as does Cartagena, the old capital of New Spain.

OPENING UP ORIENTE^a ∴

IN June last The Cuba Railroad Company began work on an extension of its present system which will add 163 miles of new road to the 441 miles already in operation under its ownership in the three provinces of Santa Clara, Camaguey, and Oriente. Trains will be moving over the new tracks by June, 1910, for construction is being pushed at a pace equaled, in this country, only by The Cuba Railroad itself in putting through (1900-1902) its line from Santa Clara to Santiago.



JIGUANI, IN THE BAYAMO DISTRICT, PROVINCE OF ORIENTE, CUBA.

One of the small villages awakening to the influences of the newer Cuba.

The new line leaves the present main line at Marti, in Camaguey Province, running thence to the historic city of Bayamo, in the heart of Oriente, a distance of 81 miles. From Bayamo a branch will turn southwestward to the important Caribbean port of Manzanillo, a distance of 34 miles. The main line will continue from Bayamo 48 miles to Palma Soriano, a town in communication (via 12 miles of road to San Luis already in operation) with the city of Santiago de Cuba (33 miles to the southeast), capital of the eastern province, and second in importance in the island of Cuba.

^a By I. A. WRIGHT, editor of The Cuba Magazine, Camaguey, Cuba.

Work on this extension was begun from three points at one and the same time—Martí, Manzanillo, and Palma Soriano—and from all three directions it is being prosecuted at top speed. Gangs of Galician laborers, paid according to what they accomplish, are working week days and Sundays, from dawn to dark, and on moonlight nights.

The maximum grade on the line will be 1 per cent, and the sharpest curve 4° . The general work is not heavy.

Features of the line are its bridges, especially those spanning the Canto, largest stream in all Cuba, which, because it makes a great



BUILDING CULVERT ON THE HIGHWAY FROM BAYAM TO MANZANILLO

A strong support must be given to such portions of the road as run through swampy soil. In Cuba the piles driven are often of native hardwood, hand hewn, which, if sold in the United States, would be worth hundreds of dollars.

bend to the north before taking its final direction north and west of its source, has had to be crossed twice.

The first crossing is just outside the town of Palma Soriano, from bluff to bluff, over a distance of 514 feet. This is a deck bridge with one 60-foot girder, two 157-foot deck spans, and two 80-foot deck girders at the west end. The fourth span rests on two cylinders sunk 35 feet from the ground level to bed rock, rising 20 feet above the ground. In the concrete work of this bridge 2,000 yards of the material were employed. All was ready for the steel superstructure within a month of its commencement and the bridge was finished in September.



A LANDSCAPE IN CUBA.

In the extreme eastern province royal palms grow as luxuriantly as they do in western Cuba. The scenery is very beautiful, but still scarcely impressed by the influence of man.

The grade line is 96 feet above the water at its lowest. In the dry season the Cauto is little more than a purling brooklet; when the rains descend, the floods come, in sudden and tremendous rises. This bridge is erected to withstand even the "twenty years' high water," of which old inhabitants speak respectfully. Throughout all the extension special attention has been paid to questions of drainage, which in this vicinity are particularly important.

There will be on the line two steel viaducts—one over the San Francisco River and one over the Remanganagnas, both at no great distance from Palma.



A PRIMITIVE ROAD IN ORIENTE PROVINCE, CUBA.

Cuba is so frequently visited to-day that every province is determined to place even its worst roads in such a condition that they may be used by the tourist on horseback or automobile.

Rio Guaminao will be crossed by a deck bridge, composed of two steel girders and a 40-foot girder approach on the west.

The Contramaestre River will be spanned by a bridge the same length as the first across the Cauto, but the spans are divided differently; it will have two 157-foot spans and one 200-foot span across the main channel. This will be the largest span on the road.

The Cantillo River, near Santa Rita, will be crossed by a single 120-foot span, and the Bayamo River will be crossed by two 150-foot, through-truss bridges, with a 110-foot deck span on the east and a 40-foot deck girder on the west end.

The second crossing of the Cauto at Guamo will be five 80-foot, through-girder bridges, with a draw span to accommodate vessels navigating the stream at this point.

The new road will be laid with 75-pound rails on ties of the hard, durable woods of Cuba, hand shaped from the big trees felled in clearing the right of way. Among the varieties found useful are acana, gnayacan, sangre doncella, jocuma, yava, jiqui, jucaro, and caguairan. These woods last for years, especially the three last named, ties of which laid elsewhere are sound after sixty years' exposure.

From Marti to Guamo the route of the extension is through especially heavy forests, the very presence of which is indicative of the fact that the soil which supports them is fertile and virgin. The



ONE OF THE NEW ROADS UNDER CONSTRUCTION IN CUBA.

The stones used in macadamizing are brought from the beds of the near-by streams.

entire district is sparsely populated. Opportunities for profitable development are numberless.

The city of Bayamo lies in the Bayamo Valley, largest in the island. Its lands are rich, well watered by clear streams pouring off the Sierra Maestra, well drained, and now supplied with the one advantage, lack of which has heretofore prevented their proper exploitation by capital and industry employing modern methods; that is, means of communication with the rest of Cuba and the world at large.

Earliest Spanish colonists appreciated the location, and Bayamo was among the first settlements made in the island; the city was one of the seven founded by DIEGO VELAZQUEZ, conqueror and first governor of Cuba. Later the town developed at the expense of Santiago,

as, being less accessible, the population of the seaport fled thither to escape pirates. Later still it suffered neglect on account of this very inaccessibility.

Theoretically, Bayamo is on the "royal road" between Havana and Santiago de Cuba. In reality, this "royal" road is far from deserving its grandiloquent title; it is a very poor road indeed save in those few sections where it has been macadamized. It marks the route to be followed, generally, by the Havana-Santiago central artery of travel, according to Col. WILLIAM BLACK'S road plans approved and ordered executed by former Provisional Governor CHARLES E. MAGOON. It will be recalled, too, that that plan provides



MODERN ROAD CONSTRUCTION IN CUBA.

As soon as the heavy foundation is laid every modern device for scientific road building is utilized. Even steam rollers are imported to assure the best results.

for a branch from this grand trunk line to a north coast port, and another to a south coast port in each Province. Manzanillo (population, 15,819) is the most important southern port, if Santiago be considered eastern, in Oriente. Its principal exports are cedar, mahogany, and sugar. It is point of call for vessels frequenting the Caribbean side of Cuba.

Therefore, and in accordance with Colonel BLACK'S plan, a wagon road from Bayamo is being built to Manzanillo. It is, in theory, the south coast branch from the main road; in reality it is isolated, for as yet that grand trunk road does not exist beyond San Luis. To San Luis, from Santiago, a good macadamized road was built by

THE CAUTO RIVER AT PALMA SORIANO, CUBA.



Gen. LEONARD WOOD; eventually, following the provisional administration's plan, it will connect with the twenty-odd miles of good road which are in use eastward from Camaguey.

W. J. OLIVER, of Knoxville, Tennessee, is the contractor building the 57 kilometers of the Bayamo-Manzanillo *calzada*. It lies through a region notorious for bog holes, the worst to be encountered between Cape San Antonio and Point Maysi. They are impassable in the rainy season, which is six months of the year, even for ox carts drawn by a dozen yokes.

Owing to the nature of the country it was in some places necessary to raise the road on a considerable embankment over the flat plain. Many culverts had to be put in. These were largely made of hard wood cut in the vicinity, the logs being hewn by hand. Two bridges were built—a one-span steel bridge over the Yara and a two-span bridge of the same material over the Bayamo River.

Because of the topography of the country, its utter lack of means of transportation, and of almost all other facilities, the work of building this Bayamo-Manzanillo highway has been difficult. Neighboring nature has been called upon to assist, by way of contributing not only hard wood, but also stone for macadam from the river beds. Almost the entire population of the vicinity was hired to labor on the undertaking. Already the completion of a good, smooth macadamized highway from port to interior city is in sight. The work will be finished to the last detail in three or four months.

Bayamo (present population 4,102) was, prior to the Ten Years' War, counted the richest city in Cuba. It bore the brunt of that fierce struggle, in the course of which many of its patriotic people wrecked their fortunes, sometimes destroying their own plantations and homesteads rather than permit the Spanish to profit by occupancy. With the conclusion of the wagon road to Manzanillo and the commencement of actual work on the railway which is to connect the town with Santiago in the east, and with Camaguey and Havana in the west, animation has seized the great district entire, of which Bayamo is headquarters, and this region, given the natural advantages with which it is endowed, can not in the course of its development do less than restore the city to the very important place it formerly occupied.

Beyond Bayamo, on the way to Palma Soriano, the railway will pass through Baire, like Bayamo, renowned for patriotism. Here was made the memorable declaration (*Grito de Baire*) which commenced the war against Spain that culminated in American interference and the establishment of the existing Republic.

Baire is in the Contramaestre Valley. This valley, beautiful with palm trees, its water courses feathered with wild bamboo, ridged with minor hills on slopes of which hang fields of corn, coffee, cacao, yucca,



THE FINISHED ROADBED OF THE BAYAMO-MANZANILLO HIGHWAY.

Cuba has hundreds of miles of highways of this character, making the island one of the most delightful resorts for automobilists in the world.

and bananas, is inclosed by towering mountains which furnish it with never-failing streams, to say nothing of the final touch of grandeur to enhance its delicate loveliness.

In those mountains are valuable deposits of minerals, especially iron and manganese, the exploitation of which the railway makes possible.

Near their base the new line reaches the highest altitude it attains, 580 feet above the level of the sea.

The Palma Soriano district is famous for its coffee. Its yearly output at present is estimated at 30,000 *quintales*. Its plantations are primitive in their arrangement and cultivation. Every process ob-



THE TYPE OF AN OLD BRIDGE IN ORIENTE.

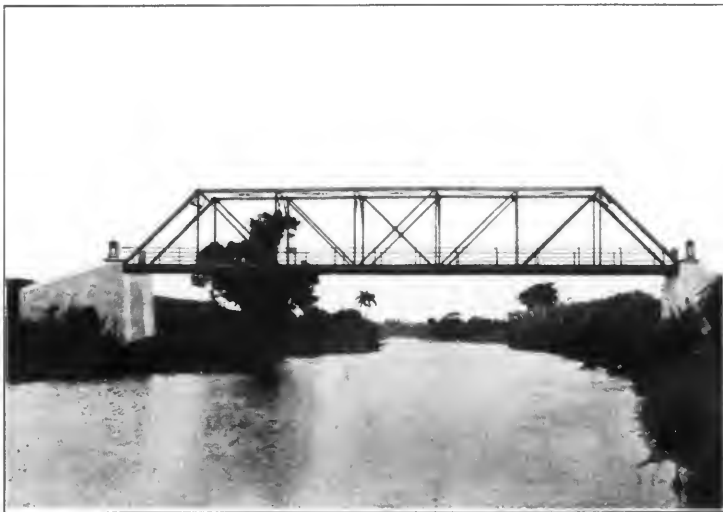
This photograph was taken on November 20, 1907, just before the construction of the highway was begun.

served until the product is brought to town for its first sale is antiquated. Yet the profit is large, even to careless growers. Cacao is planted haphazard among the coffee trees. According to prevailing prices the grower favors now one and now the other. Corn yields two crops per year. The fields are planted in rows wide apart, and as one crop matures the other is started in the open space. The vicinity produces tobacco, but this industry seems to have fallen off as others, coffee for instance, became more remunerative. Starch is exported. It is made from yuca, on little estates, by aboriginal processes.

The town of Palma Soriano itself (population 2,333) dates from earliest years, when a man named SORIANO, according to Sr. D.

EMILIO BACARDI'S "History of Santiago de Cuba," settled there, and having no church in which to worship, marked a cross on a palm tree before which to perform his devotions. The place was called "The Palm of Soriano," and this is the name, abbreviated, which has persisted to this day.

The arrival of the railway built out from San Luis, establishing connection with Santiago de Cuba, put new life into the town. It has a water system and an electric-light plant. Real prosperity was assured by the commencement of the work out of Palma on the new extension. When that line is put in operation, by June, 1910, Palma will become a leading shipping point.



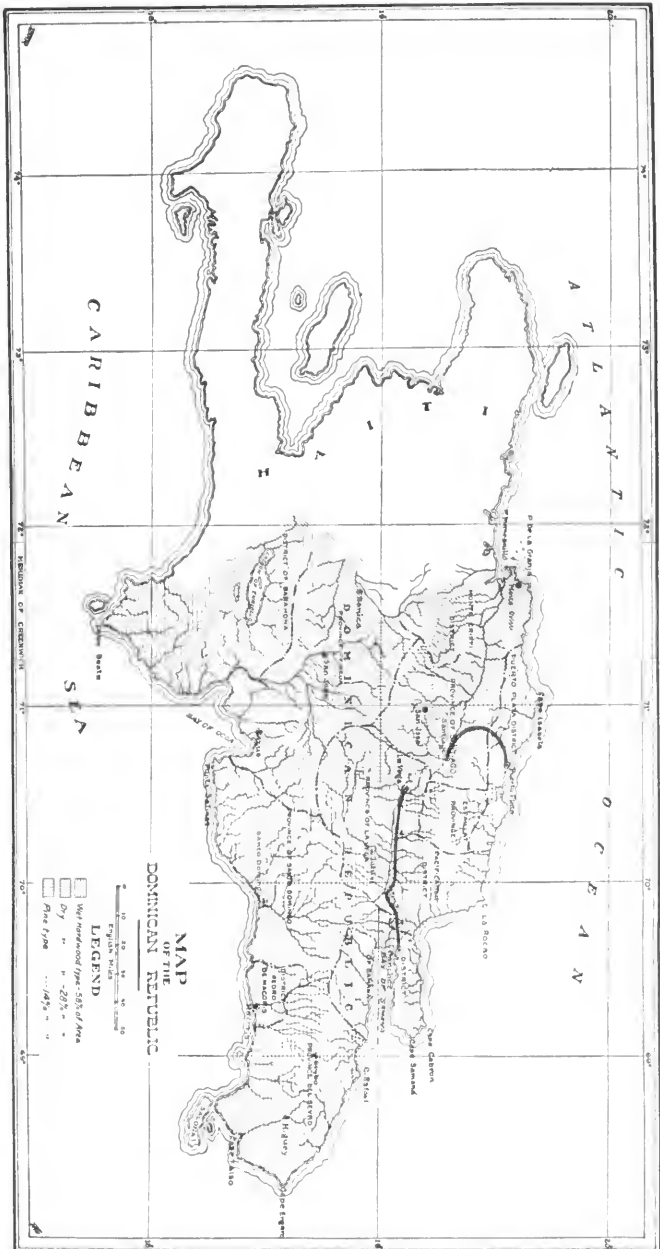
THE TYPE OF A NEW BRIDGE IN ORIENTE.

This photograph was taken on December 29, 1908, after the completion of the Bayamo-Manzanillo highway.

The extension seems to complete the system of the Cuba Railroad which, then, will serve the three eastern Provinces adequately, extending from Santa Clara to Santiago de Cuba, through Camaguey, touching the north coast at the very important Bay of Nipe, and the south coast at Manzanillo. The northern prong of the fork which divides at Marti traverses a good cane, cattle, and lumber district on the one hand, while the other, the new line, penetrates an even richer district on the other. Moreover, when it is completed, the extension will become the main line, for the through Havana-Santiago express trains will follow its route rather than the more northerly course they take nowadays. This will considerably shorten

the time between the two cities named. It will make it possible for visitors to the island to travel through its richest quarter, heretofore not accessible to them with any comfort, and it will contribute much toward making the historic city of Santiago itself more popular with tourists, for whose entertainment there old hotels have been renovated and new ones opened only recently. Also, and this seems more important, it will open to northern energy and investment a part of Cuba which, up to this time, has enjoyed little of the consequent inspiration. The favor is reciprocal, for in exchange for the industry and the cash, Oriente will return sure profits at high rates.





COMMERCIAL ASPECTS OF THE FORESTS OF THE DO- MINICAN REPUBLIC^a ∴ ∴

THE Dominican Republic exported during the year 1908 timber and timber products to the value of over \$71,000. The species shipped were lignum-vitæ, mahogany, satin-wood, ebony, cedar, and such dyewoods as divi-divi, fustic, and logwood. The table given below shows in detail the amounts and value of the timber exported during 1907 and 1908, and the countries to which it was sent. This table was compiled by the general receiver of Dominican customs, and is published here through his courtesy.

Wood exports for the calendar years 1907 and 1908.

MAHOGANY.

Countries.	1907.		1908.	
	Quantity.	Value.	Quantity.	Value.
	<i>Fct.</i>		<i>Fct.</i>	
United States.....	112,515	\$11,999	129,683	\$6,967
United Kingdom.....	5,306	465	31,398	2,783
Germany.....	27,618	1,393	46,880	4,065
France.....	3,203	110	10,876	1,155
Spain.....			1,498	75
Italy.....			3,179	149
Cuba.....			146	6
Porto Rico.....	800	40	8,244	385
Other countries.....	37,967	1,600	33,622	1,466
Total.....	187,409	15,607	265,526	17,051

LIGNUM-VITÆ.

United States.....	1,158	\$26,478	306	\$6,873
United Kingdom.....	225	4,217	123	2,255
Germany.....	120	2,075	4	90
France.....	27	266		
Italy.....			140	1,410
Other countries.....	761	10,489	501	6,362
Total.....	2,291	43,525	1,074	16,990

ALL OTHER WOODS.

United States.....		\$17,158		\$11,668
United Kingdom.....		6,155		5,685
Germany.....		5,958		4,922
France.....		3,101		3,865
Spain.....				264
Italy.....		675		340
Porto Rico.....		3,999		6,595
Other countries.....		20,083		4,019
Total.....		57,129		37,358

^a By Karl W. Woodward, Missoula, Montana.

The Dominican Republic has long had a reputation for the high quality of its hard-wood timber. Some of the best mahogany in the West Indies, and probably in the world, was shipped from this island. Dominican mahogany was famous not only for its large size, but for the beauty of the polished wood. Large quantities of the other valuable hard woods and dyewoods mentioned above have also been exported from this Republic, since its forest resources have always been one of the main assets.

Although this island has been settled since the time of Columbus, there are not more than 100 miles of good wagon road, and the two short railway lines only open up a comparatively small part of the Republic. Owing to the difficulty of bringing timber out of the interior, lumbering has been almost entirely confined to the immediate coast. A belt 25 miles in width, extending around the coast and along the railways, will take in all of the cut-over area. By reason of the lack of good roads the tools used in getting lumber out have also been very primitive. Carts are almost unknown, and a great deal of timber has been packed out on mules. Of course such drivable woods as mahogany have been cut from the banks of the principal streams, but these cuttings have not extended any great distance back from the main streams on account of the difficulty of dragging the logs through the dense tropical woods. The great cost of getting at the timber has only made it possible to market at a profit the choicest parts of the most valuable timbers. Everywhere in the cut-over areas one sees parts of logs which could have been used if the means of transportation had been such as to permit their being taken to the seacoast cheaply. In addition to this great waste of usable material of the species which have a recognized place on the market, there has also been an almost total neglect of those species of timber which have not attained a reputation. There are, unquestionably, a good many species which can be used to just as good advantage as the hard woods, which, like mahogany and satiuwood, have an established place on the timber market. That these have not been used does not indicate any lack of valuable qualities, but merely shows that the great cost of exportation has prevented lumbermen from experimenting with any species whose reputation is not well established.

Eighty-five per cent of the land area of the Republic is covered with timber. While, of course, the clearings which have been made for agricultural purposes are much smaller now than they will be in the near future, yet at least 50 per cent of the island is better adapted to growing trees than to the production of field crops. Hence, even with the expansion of the cocoa, tobacco, sugar cane, and rice plantations, which is sure to come with the development of the country, there will still remain a very large part of the Republic which can

be advantageously devoted to the growing of timber. The conservation of these timber resources will not only insure a steady income from the exportation of lumber, and furnish the timber upon which the development of the agricultural and mining resources will depend, but will also conserve the water needed for irrigation and prevent the occurrence of destructive floods in the parts of the Republic which have a heavy rainfall.

The timbered areas may be divided into three types, each of which has a distinctive flora, and presents different problems to the lumberman.



A RIVER IN THE REGION BEARING THE WET HARDWOOD TIMBER.

WET HARD WOOD.

All of the eastern side of the island is covered with what may be called the "wet hard-wood type." Here the rainfall varies from 60 to over 100 inches per annum. The vegetation is luxuriant, and the woods bear out the conventional idea of a tropical forest with a dense crown cover under which numerous vines and creepers grow. In this kind of a forest the machete is absolutely necessary to make any progress at all. For pack trails or wagon roads the clearings have to be made very wide in order to prevent vegetation from encroaching upon the roadway, and to make sure that the sun will reach the ground. Although the trails are frequently cut out 100 feet wide, they are commonly, even in the dry season, merely a series of mud puddles. In the timber where the sun does not have a chance

to dry out the soil, it is very difficult to take a horse through without danger of its "bogging down."

The following list gives not only the names of the important species found in the "wet hard-wood type," but also shows roughly the size which these species attain. While these estimates of height and diameter are not based upon large series of measurements, yet they are conservative and furnish in a brief way more definite information in regard to the development of these species than long descriptions would.

WET HARD-WOOD TYPE.

Species.	Diameter breast high (Inches).		Total height (feet).	
	Average.	Maximum.	Average.	Maximum.
Abey.....	15	35	60	80
Acana.....				
Acettuna.....		12		60
Algarroba (<i>Hymenax courbaril</i> L.).....	25	35	75	100
Almacigo.....		35		70
Almendra (<i>La placea Wrightii</i> Griseb?).....	20	30	70	85
Amacei (<i>Copaifera officinalis</i> Jacq.).....	20	30	70	85
Baria.....				
Bera.....		40		90
Cabllina.....				
Cabima.....		40		90
Candelon.....	25	40	70	90
Caimito de cuenyo (<i>Chrysophyllum</i> L.).....	20	35	70	80
Caoba (<i>Srieteni Malouani</i> (mahogany) L.).....	24	65	70	125
Caoba (<i>Cordia gerascanthus</i> Jacq.).....	20	36	70	80
Caya.....	25	45	75	90
Cedro (<i>Cedrela</i> (cedar) <i>Odonata</i> L.).....	20	40	70	125
Ceiba.....	40	65	85	130
Cigua (<i>Nicotiana</i> Rottb.).....		25		75
Canafistola cimarron.....	30	40	65	80
Chieharon.....				
Cochinilla.....				
Cuerno de buey.....		24		80
Copey (<i>Clusia rosea</i> L.).....	40	100	75	125
Ebano (ebony).....				
Espinillo (satinwood).....				
Granallilo.....				
Guaconejo.....		12		60
Hoja ancha.....	15	30	55	70
Jabilla (<i>Hura crepitans</i> L.).....		60		125
Jagua.....				
Jiripil.....	15	30	55	75
Jinan prieto.....	10	30	40	65
Jobo.....	25	40	60	100
Laurel.....	20	40	70	90
Limoncillo.....				
Malagata.....	8	12	50	70
Membrillo.....				
Mora (rustle).....	18	30	65	85
Nozal (<i>Juglans jamaicensis</i> (black walnut DC.).....	15	30	60	80
Palo amargo.....				
Palo blanca.....	18	25	65	90
Palo burro.....				
Palo colorado.....				
Palo de leche.....	15	30	60	90
Palmira real (<i>Roystonia regia</i> L. Cook).....	12	20	60	80
Palo de tabaco.....	20	20	70	70
Pino (<i>Pinus</i> (pine) <i>occidentalis</i> SW.).....	20	48	70	120
Pino macho (<i>Zanthoxylum martinicensis</i> Lam.).....				
Poma rosa (<i>Eugenia jambos</i> L.).....	6	10	30	50
Quebra hacha (ax breaker).....	5	8	40	60
Roble (<i>Tecoma pento phylla</i> Tries.).....	24	40	80	125
Tarana.....		20		75
Yaya (<i>Eugenia</i> Mich.) (Lancewood).....	8	10	40	75

Although this type is distributed from the sea level to an elevation of over 8,000 feet, yet the greater part of the valuable species are confined to elevations below 2,500 feet. This is the reason why it will

not be possible to get such large mahogany from the Republic in the future as has been taken out in the past. Large, finely developed trees are never found except in the deep, rich soil of the bottom lands; and while it is true that the timber resources of the interior remain almost untouched, yet it is futile to hope that these virgin timber lands will yield as large quantities of mahogany, satinwood, ebony, logwood, dividivi, and fustic as have been cut from the vicinity of the seacoast. A list is given below of the species occurring in the "wet hard-wood type," which are confined to the lower levels.



A RIVER IN THE REGION BEARING THE DRY HARDWOOD TIMBER.

Species only occurring below 2,500 feet above sea level.

Abey.	Canafistola cimarron.	Jabilla
Acano.	Copey.	Mora
Algarroba.	Ebano (ebony).	Palo de tabaco.
Caoba (mahogany).	Espinillo (satinwood).	Tarana
Capa.	Grandillo.	Yaya (lancewood).
Ceiba.	Hoja ancha	

The tropical hard woods present a marked contrast to coniferous forests and even to the hard-wood forests of the temperate regions. The latter species are almost invariably gregarious, and it is possible to log a large quantity of one species from a unit area. In the Tropics the valuable species are scattered singly over large areas. Two and three mahogany trees to an acre is a common stand.

Careful estimates show that over large areas the hard woods now valuable seldom exceed 500 feet board measure per acre.

Logging in the "wet hard-wood type" is beset by many difficulties. The frequent rains not only hinder work, but make the securing of a roadbed a very difficult matter. Unquestionably, the cheapest way in



CACTUS IN THE DRY HARDWOOD REGION.

which to get logs out of such a forest is by a railroad. Good drainage may be secured much more cheaply upon a railroad right of way than where a wagon road must be maintained. But it is seldom that there is a large enough stand per acre of species which are at present recognized as valuable to justify the expense of maintaining the railway. The problem may be solved in one or two ways.

Either the land may be used for agricultural crops after the timber has been removed, or a market must be worked up for those species which are considered valueless. Much of the land belonging to this type has been cleared for sugar and cacao plantations, but only the most valuable tree species have been removed for lumber. The others have been burned in order to clear the ground. Careful study ought to reveal ways in which these otherwise useless species can be used as substitutes for the more valuable kinds of lumber, or for the manufacture of such by-products as wood alcohol and charcoal. In tropical countries, where large fires are not needed, alcohol and charcoal ought to meet an urgent demand for easily ignited and clean fuel.

The steeper slopes occupied by the "wet hard-wood types" will be very difficult to log economically. Clearing will be out of the question, because the frequent rains will wash the soil so that agriculture can not be practiced. From its importance in preventing floods, by far the wisest course will be to keep intact, or cut only very conservatively, the mountain slopes which are covered by this type.

DRY HARD WOOD.

The type map which accompanies this article shows that the "dry hard-wood type" is confined to the western part of the island, where the moist trade winds are shut off by high mountain ranges. A list of species occurring in this type, together with estimates of the size which they reach, are given below:

DRY HARD-WOOD TYPE.

Species.	Diameter breast-high (inches).		Total height (feet).	
	Average.	Maximum.	Average.	Maximum.
Abey.....	15	35	60	80
Baitoa.....	15	35	60	70
Bayahonda blanca.....	12	30	45	60
Bayahonda prieta.....	10	30	25	45
Campeche (<i>Hematurium campechianum</i> L.) (logwood).....	20	30	70	80
Caoba (<i>Swietenia mahogany</i> L.) (mahogany).....	18	30	70	90
Caracoli.....	8	15	25	50
Dividivi (<i>Cresalpinia coriaria</i> Willd.) (divi-divi).....	12	20	50	60
Guacanejo (<i>Amyris</i> L.).....	15	20	40	65
Guayacan (<i>Guaiacum officinale</i> L.) (lignum-vitæ).....	12	20	40	50
Guayacanello.....	15	25	50	70
Mora (fustic).....	20	30	60	80
Palma de cana (<i>Sabul umbraculifera</i> Mart.).....	20	30	60	80
Tamarinlo (<i>Tamarindus indica</i> L.).....	20	30	60	80
Trejo.....				

The average stand per acre is often less than in the "wet hard-wood type," since the trees do not stand so close together. Throughout this type the annual rainfall is less than 30 inches per annum, and the dense, luxuriant vegetation of the eastern side of the island

is replaced by plants which can withstand long periods of drought. The trees are much shorter and more branchy, and large areas are covered with tree-like cacti. Except for these spiny cacti, logging is rather easy, because the soil is commonly dry enough to furnish a good hauling surface.

PINE.

The interior of the Republic around the headwaters of the main streams is covered with extensive stands of almost pure pine. The wood is almost identical in quality with the loblolly pine of the southeastern United States. The only other species which occur in this type are a few hard woods, palms, and a form of pencil cedar



HEAVY GROWTH OF PINE NEAR JARABOCCA.

which find congenial sites in the moist canyon bottoms. The stand per acre varies from 20,000 feet to 2,000 feet. The timber is naturally more dense on the eastern slopes of the mountains, where the rainfall is heavier. On the western side, the stands are very open and the trees short and scrubby. In nearly all the better stands of pine there is a dense undergrowth of poma rosa. This will form a very serious obstacle to cheap logging, since the roads and skidding trails necessary to get the timber out will have to be cut through it. And, in addition, the shade from this undergrowth keeps the soil continually wet and sticky.

As yet very little of this pine timber has been cut. There are a few small sawmills, which pay about \$20 per thousand for logs deliv-

ered at the mill and receive \$30 per thousand for the rough lumber. Some difficulty has been experienced in driving this kind of pine. The younger trees, which have a high percentage of sapwood, do not float, but the mature timber drives well, since it has a large percentage of light heartwood.

Sporadic attempts at tapping this pine for turpentine have been made. The product compares very favorably with that of the southeastern United States, and there seems to be no reason why the business can not be put upon a profitable basis.



OPEN GROWTH OF PINE IN THE WESTERN PART OF THE REPUBLIC.

Since there has been so little lumbering done, it is difficult to give a careful estimate of the probable cost of operations carried on in accordance with the methods employed elsewhere. Labor is comparatively cheap, 50 to 75 cents a day being the prevailing wages for unskilled workmen. While very few natives have had any experience in logging, there seems to be no reason why they should not, under capable leadership, develop into good woodsmen. Given a stable government, they will work industriously. Anyone who has seen the immense amount of labor involved in clearing up a sugar or cacao plantation must entertain great respect for the working capacity of the men who have made the clearings.

The Dominican Republic enjoys an enviable reputation for its healthfulness. Malaria and yellow fever are almost unknown, and

even with a marked increase in the population simple sanitary measures will insure almost the same degree of working efficiency as is obtained in temperate climates.

At present the cost of living is very high on account of the import duties on clothing and foodstuffs which are not raised in the country. The customs receipts are the main source of income for the Government, and the prices of such standard articles as flour and cotton goods are almost double what they are in this country. Realizing the severe check which these import duties are putting upon the industries of the country, arrangements have already been made to reduce the tariffs.



PINE-CLAD HILLS NEAR JARABOCCA.

The system of land titles prevailing in the Republic is similar to that which is in vogue in parts of New Mexico and California. Large grants of land were made during the time of the Spanish occupation to individuals. Instead of being subdivided amongst the descendants of these original grantees, the tracts have been held more or less in common. Each family uses as much land as it needs for its maintenance. The population has not been, up to this time, dense enough to occupy more than a small portion of the arable land within the Republic, so that this communal system of land ownership has worked very well. However, with the influx of emigrants, subdivision of these large tracts amongst the individual owners must follow in the same way that the grants in the southwestern part of the United States have been broken up.

Lumbering has been one of the most important industries of the Dominican Republic, and, under a wise policy of conservation and utilization, the timber resources of the island will continue to be one of its chief assets. While the exports of such foodstuffs as sugar, coffee, and cacao will increase greatly, there must always remain a large area of land which is better suited to growing trees than any agricultural crop. A statesmanlike policy in the development of the means of transportation will make it possible to reach the untouched timber resources of the interior, and the Dominican Republic ought to supply from her virgin timber lands the needs of those other West Indian islands from which the timber has been recklessly cut off. Cuba, Porto Rico, and Jamaica are already feeling the effects of the short-sighted policy which has permitted the destructive exploitation of their timber lands.

To anyone acquainted with the geography of the West Indies it is unnecessary to enlarge upon the favorable location of San Domingo. It lies on the main route of travel between North and South America and has several convenient harbors for vessels sailing between Europe and Central America. This advantage will be augmented, naturally, by the opening of the Panama Canal. After careful weighing of all the pros and cons the Dominican Republic will be found to offer a very attractive field to the lumberman, whether he wishes to cut hard woods or pine.

CABINET WOODS.

Caoba (mahogany).	Acana.	Espinillo (satinwood).
Candelon.	Nogal (walnut).	Ebano (ebony).
Caracoli.	Cedro (cedar).	
Bayahonda.	Sabina.	

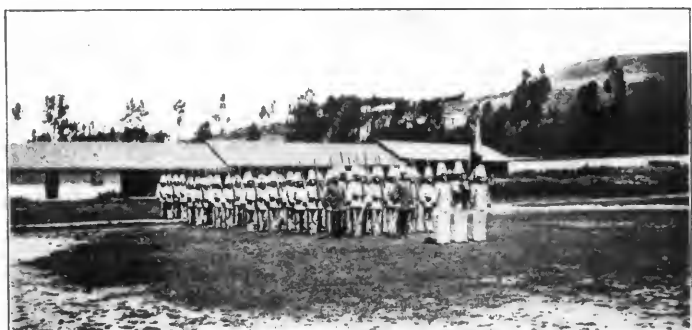
CONSTRUCTION WOODS.

Caoba (mahogany).	Quiebra hacha.	Baria.
Roble.	Cuerno-de-buey.	Chicharon.
Caja.	Jique.	Accitimo.
Cigua.	Amacei.	Tarana.
Capa.	Granadillo.	Algarroba.
Pino (pine).	Baitoa.	
Hoja ancha.	Yaya (lancewood).	

CROSS-TIE WOODS.

(Durable in contact with the ground.)

Caoba (mahogany).	Roble.	Accituno.
Mora.	Candelon.	Baitoa.
Jique.	Carcoli.	Baria.
Bayahonda.	Cedro (cedar).	Cuerno-de-buey.
Capa.	Almendro.	Hoja ancha.
Quiebra hacha.	Nogal (walnut).	Algarroba.



ECUADOR'S MILITARY SCHOOL " " "

THE Military College of Quito is one of the most recent institutions of its kind on the Western Hemisphere, having been founded in 1897 by the present President of Ecuador, Gen. ELOY ALFARO. It is indicative of the modern ambition of the Republic, in a line with the progressive spirit of all nations, to offer to the young men of the country an opportunity for first-class military training, as well as to foster in the youth of the land that regard for discipline which is such an essential factor in the activities of twentieth century life. Ecuador has hitherto been somewhat isolated from the rest of the world and even from its nearest neighbors, Colombia and Peru, lying, as it does, among the mountains of the Andes. But, with the completion of the Guayaquil and Quito Railway the beautiful plateau on which the capital and the more cultivated areas of the Republic are situated has become easily accessible, and the future prosperity assured to the Republic by the completion of the Panama Canal will rapidly overcome the natural obstacles against which the country has heretofore been obliged to contend.

The whole nation, therefore, is anticipating its participation in the advancement of Latin America, and recognizes that this college and the education imparted in it is one important factor toward that end. Their spirit of nationality is intense, and while they are proud of their history, they desire to unify their forces so as to be able to have their military training the same in all parts of the country.

In the beginning it was considered best to call to the aid of the college distinguished officers who had been trained in the best schools of Europe. This is a system adopted by many of the countries of the

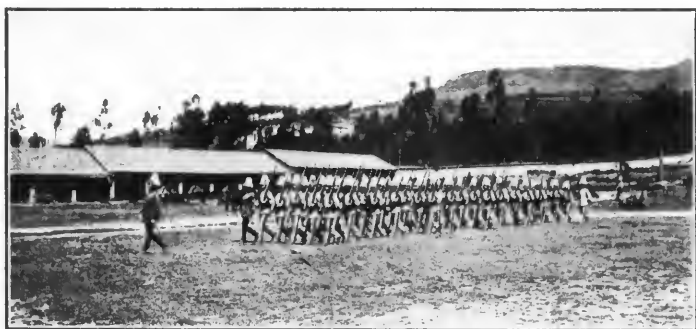


GROUP OF INSTRUCTORS AT THE NATIONAL MILITARY SCHOOL.

world, and has its advantages, because the highest skill or training can be acquired only from those who have had practical experience derived from an army which has been for generations in the field. To-day, however, instruction is given by Ecuadoran officers, who within the past few years have profited by their foreign advisers, so that they are competent to carry on the instruction independently.

Col. OLMEDO ALFARO, a son of President ALFARO, is the present director of the Military College of Quito. Colonel ALFARO received his military education in the United States Military Academy at West Point, New York.

At the end of his studies there he went to France and served diligently and for a long time in the French army. He then returned to Ecuador to introduce to the newly established institution such tactics of both the New and the Old World as seemed most fitting



CORPS OF CADETS FROM THE MILITARY SCHOOL MARCHING ON THE CAMPUS.

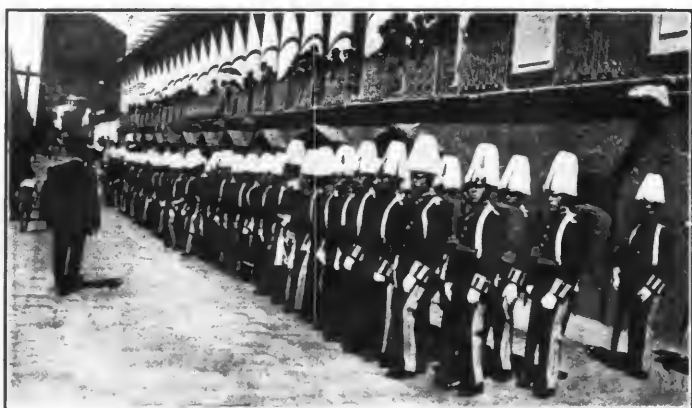
for the national environment. A brother of Col. OLMEDO ALFARO, COLÓN ELOY ALFARO, is at present following the same career at West Point.

The tactics of the Military College of Quito are based, to a considerable extent, on German methods. The regulations of the German military school have been adopted and the uniform is patterned after that of the young German officers. The school is the nucleus of the army, and as Ecuador has thus established a model school, there is no doubt but that the result will be a model army, trained and disciplined in the best sense of the word, and prepared most creditably to perform the functions pertaining to that branch of the government service.

This school at Quito is destined to rank along with such efficient institutions as those of Chile, the Argentine Republic, and Brazil. The latter have had a longer existence, but there is no reason why Ecuador, beginning under such favorable circumstances, should not be able, within a short period, to show quite as admirable results.

The Military College of Quito will soon have a new and elegant building, which will be equipped with all modern improvements. The director has done and does his best for the progress of the institution, to which he is completely devoted, and which, therefore, is largely indebted to him for its present state of prosperity and thoroughness. In fact, the entire ALFARO family, led by the President, have shown continuous interest in the school and everything relating to military education, and the Republic is sincerely grateful for their devotion.

Quito, the capital of Ecuador, it is worth repeating, lies almost on the equator at an altitude of 9,600 feet. Towering above it for 6,000 feet more is Mount Pichincha. The valley in which the city lies extends to the north and south, and along it are highways of great age, built partly by the aboriginal inhabitants and partly by



REVIEW OF CADETS FROM THE NATIONAL MILITARY SCHOOL AT THE OPENING OF THE EXPOSITION IN QUITO.

the later Spanish settlers. From Quito another well-traveled highway leads gradually down to the chief seaport of the Republic, the city of Guayaquil. This is now paralleled by the recently constructed railroad which, as the plans of the Government are completed, will be extended along the central plateau to touch the well-settled areas there. The climate of Ecuador on the coast is that of the tropical zone, while in the interior it is in all respects, except that of latitude, a temperate country. It will be seen, therefore, that the military problems presented by Ecuador are quite unique. They require particular study, because tactics applicable to portions of Europe would be of little value in such a country as this. The authorities in the school have, consequently, a great problem before them, and they have done wisely to lay such a thorough foundation for the study demanded for its successful solution.

SUBJECT - MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO OCTOBER 20, 1909.

Title.	Date of report.	Author.
ARGENTINE REPUBLIC.		
Industrial Census of the Argentine Republic.....	July 21, 1909	R. M. Barteman, Consul-General, Buenos Aires.
Railways of Argentina—Prosperity of 1908-9.....	July 26, 1909	Do.
TRADE NOTES.—Railway from Serrezuela to San Juan to be completed by January, 1910. Population of Tucuman on June 30, 1909. Population of Santa Fe on same date. Success of ambulance wagons imported from the United States for the Health Department of Buenos Aires; more to be ordered. Announcement from Santiago de Chile that the Transandine tunnel will be open to Jineal during August, 1909. Over \$40,000 to be spent in improving the national college at Parana. The Railway Exhibition Commission has decided to ask the Government to present a bill to Congress guaranteeing to foreign exhibitors at the exhibition to be held in 1910 that no patent shall be granted for similar articles to those they exhibit and that they may petition for patents on such articles. Concession requested by the Radio Telephone Co., of New Jersey, for a concession for 99 years to establish radiograph stations in the Republic and on ships flying the national flag. Notice to navigators that a luminous buoy has been placed on "Los Pinos" rock, in the North Channel. Experimental shipment of five steers from Bahla Blanca for Iquique, Chile, on July 20. Number of domestic fowls in the Republic in May, 1908.	Aug. 9, 1909	Do.
Circular No. 15 of the Railway Exhibition to be held in Buenos Aires in 1910.	Aug. 12, 1909	Do.
Bulletin of Finance for August, 1909.....	Aug. 14, 1909	Do.
Competition of automatic feeders of thrashing machines....	Aug. 25, 1909	Do.
Argentine foreign trade for the first six months of 1909.....	Aug. 26, 1909	Do.
TRADE NOTES.—Population of the city of Buenos Aires and Province of Buenos Aires on June 30, 1909. A new German Club in Buenos Aires. Report of the Argentine Ministry of Agriculture on the world's supply of wheat for 1909-10. Argentine yield of wheat for 1909-10. New prison in Buenos Aires. Population of Province of Entre Rios. Completion of the Chilean part of tunnel on the Transandine Railway. Acquisition of a building and market, at a cost of nearly \$1,000,000 U. S. currency, to widen the streets of Buenos Aires.	.....do.....	Do.
Railways in the Argentine Republic.....	Sept. 8, 1909	Do.
BRAZIL.		
Crayons, chalks, etc., in Brazil.....	July 29, 1909	G. E. Anderson, Consul-General, Rio de Janeiro.
Improvements in European-South American shipping service.	July 30, 1909	Do.
Propaganda in Argentine markets.....	Aug. 9, 1909	Dirk P. De Young, Vice-Consul, Santos.
INDUSTRIAL NOTES.—Sugar cane in Santa Catharina. Rice culture in Santa Catharina.	.....do.....	Do.
Half year of Brazilian trade.....	Aug. 10, 1909	G. E. Anderson, Consul-General, Rio de Janeiro.
Bicycles in the Argentine Republic.....	Aug. 12, 1909	Dirk P. De Young, Vice-Consul, Santos.
Prophylaxis in yellow fever.....	Aug. 16, 1909	G. E. Anderson, Consul-General, Rio de Janeiro.
Automobiles in Brazil.....	.....do.....	Do.
Undertaking of the Government of Brazil to establish an iron-working industry.	.....do.....	Do.

Title.	Date of report.	Author.
BRAZIL—continued.		
American hardware in Brazil.....	Aug. 25, 1909	G. E. Anderson, Consul-Gen- eral, Rio de Janeiro.
TRADE NOTES.—Reorganization of the Lloyd Braziliro as a corporation in which the Government is to have two-thirds of the stock and absolute control of the affairs of the company. Coffee exports of the State of São Paulo. Improvement of roads, etc., in State of Santa Catharina by using 29 per cent of last two years' revenue. Prices of Brazilian sugar as regulated by the Brazilian sugar trust. Extension of the Pernambuco Railway to Triunfo and the Central da Parahyba do Norte Railway from Guarabira to Pecerhy, both lines part of the Great Western Ry. of Brazil. Excess of exports over imports during the current calendar year. Investment of British capital in railway and industrial enterprises aside from investments in the government and semi-government securities. Development of agricultural lines of varied sorts in the State of Rio de Janeiro. Combination of the Bank of Brazil, the Rothschilds, and certain German houses to keep up the price of rubber by purchasing the new crop. Work being pushed on the Madeirama-Mamore Ry.	Aug. 27, 1909	Do.
Brazilian industries.....	Aug. 28, 1909	Do.
Brazil's immense iron-ore deposits.....	.....do.....	Do.
The rubber situation in Brazil.....	Sept. 3, 1909	Do.
Registering drug preparations in Brazil.....	Sept. 6, 1909	Do.
Marketing of the 1909 coffee crop.....	Sept. 13, 1909	Dirk P. De Young, Vice-Con- sul, Santos.
Salt trade of Brazil.....	Sept. 14, 1909	G. E. Anderson, Consul-Gen- eral, Rio de Janeiro.
CHILE.		
Private railways in Chile.....	Aug. 14, 1909	A. A. Winslow, Consul-Gen- eral, Valparaiso.
Trade conditions in Chile.....	Aug. 23, 1909	Do.
Chilean public works.....	.....do.....	Do.
TRADE AND INDUSTRIAL NOTES.—Chilean Government has under contract 698 miles of railroads at an estimated cost of \$24,267,606 U. S. gold, of which 522 miles are being built. Export of 250 tons more copper in first seven months of 1909 than in same time in 1908. Electrification of first section of the government railroad from Valparaiso to Santiago, about 115 miles. Export of nitrate during first 15 days of July, 1909, compared with same time in 1908. Probable date of completion of tunnel through the Andes, connecting Valparaiso and Buenos Aires, June 1, 1910. Purchase by Government of two 6-inch drilling outfits for sinking experimental artesian wells in semiarid portions of the Republic. Publication of decree authorizing insurance of parcel-post packages within limits of the country to the value of 200 pesos, or about \$10 U. S. gold. Plans for the reconstruction of Valparaiso after the earthquake of August 16, 1906; more than \$5,000,000 U. S. gold expended by the Government in improving streets, building and enlarging sewers, etc.	Aug. 24, 1909	Do.
Fur-bearing animals in Chile.....	Aug. 31, 1909	Do.
Government railways under construction.....	Aug. 28, 1909	Do.
Toilet articles in Chile.....	Sept. 1, 1909	Do.
Building locomotives in Chile.....	Sept. 3, 1909	Do.
TRADE NOTES.—Nitrate exported from Chile in August, 1909, compared with August, 1908. Loan of £1,000,000 placed by the city of Valparaiso for reconstruction of the city after the earthquake. Customs receipts for August, 1909, show gain of \$563,237.80, United States gold, over same period for 1908. Cost of the 1,581 miles of government railways in operation. Movement to hold an international agricultural exposition about Sept. 1, 1910, as a part of the centennial celebration. Construction of a dry dock at Taleahuano to accommodate war vessels of from 18,000 to 20,000 tons, to cost about \$2,000,000 U. S. gold. Number of domestic animals slaughtered during the years ending June 30, 1908 and 1909.	Sept. 5, 1909	Do.
Chilean foreign trade and how to get it.....	Sept. 6, 1909	Do.
Electrification of railway to Santiago.....	Sept. 7, 1909	Do.
English capital invested in Latin-American countries.....	.....do.....	Do.
COLOMBIA.		
Contract for the exploitation of the national emerald mines in Muzo.....	Sept. 12, 1909	Eugene Betts, Vice-Consul- General, Bogota.
Methods of packing by United States exporters.....	Sept. 16, 1909	C. C. Eberhardt, Consul, Barranquilla.
Reduction of Colombian consular tariff.....	.....do.....	C. L. Latham, Consul, Carta- gena.

Title.	Date of report.	Author.
DOMINICAN REPUBLIC.		
Land titles in the Republic	Aug. 31, 1909	R. J. Totten, Consul, Puerto Plata.
Mining and minerals of the Dominican Republic.....	Sept. 24, 1909	Do.
ECUADOR.		
Licensing of travelling salesmen before being allowed to sell wares in Ecuador.	Aug. 24, 1909	H. R. Dietrich, Consul-General, Guayaquil.
Statistics of live stock in Ecuador.....	Sept. 17, 1909	Do.
HONDURAS.		
TRADE REPORTS.—Intention of the Honduras R. R. to develop the agricultural resources of the large area of land ceded by the Government.	Sept. 18, 1909	Drew Linard, Consul, Celba.
MEXICO.		
Letting of contract for asphalt paving and improvement and extension of sewer and water systems of Chihuahua.	Aug. 26, 1909	L. J. Keena, Consul, Chihuahua.
Announcement of ratification of contract by the State legislature for a subsidized railroad between Monclova and Chihuahua.	Sept. 4, 1909	Do.
Further extension of the Southern Pacific R. R.....	Sept. 6, 1909	H. P. Coffin, Consul, Mazatlan.
TRADE NOTES.—Investigation by engineers regarding possibility of putting under irrigation 300,000 acres of the ranch of the Palomas Land and Cattle Co., by using the water of the Boca Grande River. Concession for the building of a metallurgical works at Parral, Chihuahua. The concession is for ten years, with exemption from state and municipal taxes; minimum capacity of plant, 30 tons daily, and same is to be completed in 18 months. Report that plans have been completed for the building of a dam and erection of a 20,000 horsepower hydroelectric power plant on the Nazas River, 25 miles above Torreon.	Sept. 9, 1909	L. J. Keena, Consul, Chihuahua.
Two vegetable waxes from Mexico.....	Sept. 18, 1909	Arnold Shanklin, Consul-General, Mexico City.
Dairy and butter trade.....	Sept. 21, 1909	A. V. Dye, Consul, Nogales.
Proposed building of mining equipment in and near Chihuahua.	Sept. 22, 1909	L. J. Keena, Consul, Chihuahua.
Land sales in the State of Sonora.....	.....do.....	Louis Hostetter, Consul, Hermosillo.
Imports from July, 1908, to June, 1909.....	Sept. 25, 1909	C. A. Miller, Consul, Matamoros.
Market for light-weight safe cabinets in Mexico.....	Sept. 30, 1909	L. J. Keena, Consul, Chihuahua.
Report on Ensenada Light and Water Supply Co.....	Oct. 5, 1909	G. B. Schmueker, Consul, Ensenada.
Building of dam and power plant on the Conchos River.....	Oct. 7, 1909	L. J. Keena, Consul, Chihuahua.
NICARAGUA.		
Market in western Nicaragua for American trunks and valises.	Aug. 17, 1909	José do Olivares, Consul, Managua.
Telephone and telegraph statistics of Nicaragua.....	Sept. 6, 1909	Do.
PANAMA.		
New explosives, and company for manufacturing them.....	Sept. 18, 1909	C. E. Guyant, Vice-Consul-General, Panama.
PERU.		
Renewal of steamship service between Iquitos and New York.	July 15, 1909	A. S. Slavey, Vice-Consul, Iquitos.
Editorial clipping regarding statistics of Peru.....	Aug. 16, 1909	S. M. Taylor, Consul-General, Callao.
Prospective changes in the Peruvian tariff.....	Aug. 17, 1909	Do.
Commerce and industries at Mollendo for 1908.....	Oct. 1, 1909	Do.
SALVADOR.		
Imports for first quarter, 1908 and 1909.....	Aug. 14, 1909	A. H. Frazier, Consul-General, San Salvador.
URUGUAY.		
The quebracho industry.....	Aug. 9, 1909	F. W. Godling, Consul, Montevideo.
New steamship service between Japan and ports of South America.	Aug. 12, 1909	Do.
Submarine sounding signals.....	Aug. 16, 1909	Do.
The olive in Uruguay.....	.....do.....	Do.
New customs regulations for travelers' baggage.....	Aug. 17, 1909	Do.
Supplemental annual report.....	Aug. 24, 1909	Do.
American stock receives championship prizes.....	Sept. 7, 1909	Do.

Title.	Date of report.	Author.
VENEZUELA.		
Consideration of new tariff classification and law postponed by Venezuelan Congress.	Aug. 11, 1909	I. A. Manning, Consul, La Guaira.
Commercial tours of American merchants recommended.	Aug. 19, 1909	Do.
Mineral deposits of southeastern Venezuela.	Aug. 26, 1909	Do.
Free export of all products of Venezuela.	do.	Do.
Banking in Caracas.	do.	Do.
Refusal of Venezuelan Government to extend period for commencing work on railway under expired contract.	do.	Do.
Commercial statistics in brief for Venezuela.	Aug. 27, 1909	Do.
Telephones in Venezuela.	do.	Do.
Paper pulp made from a species of bamboo found in delta of the Orinoco River.	Sept. 9, 1909	Do.
Cold storage for Caracas market.	do.	Do.
Anticorrosive liquid for use in steam boilers.	Sept. 13, 1909	Do.
Contract for transportation by steamboat and automobile in the Amazon Federal Territory of Venezuela.	do.	Do.
Excerpts from the new registration law in Venezuela governing the registration of titles and other documents.	Sept. 14, 1909	Do.
Credits in Latin America.	Sept. 18, 1909	Do.



ROAD BUILDING IN HONDURAS.

ARGENTINE REPUBLIC

FOREIGN COMMERCE, FIRST HALF OF 1909.

Figures of Argentine commerce, as published by the Statistical Bureau of the Republic, for the first six months of 1909 show an advance in both branches of trade, exports totaling \$251,773,439 and imports \$141,238,060, a gain of \$28,697,172 and \$9,964,699, respectively, as compared with the corresponding period of the preceding year.

Trade distribution showed a general advance for nearly every receiving and supplying country. The values as compared with the first half of 1908 were as follows for the leading countries:

IMPORTS.

Country of origin.	Value.	Comparison with 1908.
Africa.....	\$28,695	+ 86,737
Germany.....	21,528,713	+1,808,793
Austria-Hungary.....	1,402,707	- 294,883
Belgium.....	6,549,000	+ 40,425
Bolivia.....	67,217	- 2,964
Brazil.....	3,759,616	+ 672,165
Chile.....	198,789	- 57,606
Spain.....	4,295,068	+ 166,441
United States.....	18,524,586	+2,272,074
France.....	14,991,732	+2,239,476
Italy.....	13,530,069	+1,046,895
The Netherlands.....	1,063,572	+ 24,892
Paraguay.....	925,689	+ 124,471
United Kingdom.....	47,082,028	+1,888,212
Uruguay.....	1,348,703	+ 50,279
Other countries.....	5,941,385	- 40,508

EXPORTS.

Country of destination.	Value.	Comparison with 1908.
Africa.....	\$12,331	- \$697,747
Germany.....	21,402,618	+ 1,908,167
Austria-Hungary.....	721,661	+ 120,985
Belgium.....	27,655,178	+ 5,956,741
Bolivia.....	378,081	- 133,554
Brazil.....	8,649,419	+ 1,714,927
Chile.....	1,485,089	+ 537,355
Spain.....	1,244,114	+ 219,326
United States.....	12,057,303	+ 7,486,981
France.....	23,807,569	+ 9,966,254
Italy.....	7,544,077	+ 3,563,034
The Netherlands.....	3,128,172	- 379,163
Paraguay.....	85,851	- 66,723
United Kingdom.....	51,038,268	+ 8,440,511
Uruguay.....	561,647	+ 223,023
Other countries.....	3,449,777	+ 735,556
Orders.....	88,552,284	-10,899,101

Textiles of various kinds account for over 50 per cent of the gain in imports, the total valuation for the half year being \$28,935,379, an increase as compared with the corresponding period of 1908 of

\$5,483,370. Iron and steel and manufactures of are credited with a gain of \$2,643,327 in a total value of \$17,009,560, other items showing increased valuations being other metals, wood and manufactures of, electrical and agricultural appliances, and druggists' supplies.

In exports, live stock products show a total valuation of \$81,067,668, with a gain of \$25,751,996, chiefly attributable to wool shipments, of which 124,759 tons were sent abroad, valued at \$39,904,065, and showing a gain of \$15,371,965 as compared with the first half of 1908. In cattle shipments a gain of \$1,050,790 is reported, and in frozen beef \$1,359,340. All classifications of hides show noteworthy gains.

Agricultural products were exported to the value of \$164,932,151, representing an increase of \$1,137,238. Wheat shipments declined by 679,278 tons, with a monetary loss of \$6,654,913; on the other hand, corn exports increased by 244,693 tons and \$8,185,037, the total quantity sent abroad being 957,392 tons, worth \$24,684,531. Oats also showed a gain of 47,068 tons and \$1,801,048, the shipments covering 398,670 tons, valued at \$9,422,499.

In the gain of \$1,364,529 reported for forest products, quebracho logs and extract comprise practically the total. Logs were shipped to the value of \$1,855,006, showing a gain of \$436,124, and extract valued at \$1,938,614, an advance of \$906,814.

France, Germany, the United States, and Belgium took the bulk of the wool, Great Britain most of the frozen beef, and the United States the major share of hides.

Belgium, Great Britain, Germany, and France are the largest reported receivers of the corn shipments, but the proportion credited to "orders" far exceeds other destinations, the same statement being applicable to oats. Great Britain and Germany are the largest purchasers of quebracho products.

SANITARY CONDITION OF LIVE STOCK.

According to a statement issued by the Argentine Minister of Agriculture in August, 1909, the foot-and-mouth disease has disappeared throughout the Republic. Experiments made in the laboratory of the Bacteriological Institute and the rigorous inspection of animals have given entirely negative results.

The Minister of Foreign Affairs is requested to communicate the intelligence to legations abroad.

REMOVAL OF EMBARGO ON UNITED STATES CATTLE.

By decree of August 13, 1909, the Argentine Government removed the prohibition against the importation of cattle from the United States, which had gone into effect on November 25, 1908, as a result of the outbreak of foot-and-mouth disease in the States of New York and Pennsylvania.

PROPOSED BUDGET FOR 1910.

Estimates of expenditures for the Argentine Government during 1910, as presented by the President in a special message to Congress, are placed at \$27,997,055.84 gold and \$197,298,475.54 paper, or \$260,928,147.86 national currency. Revenues are estimated as \$69,291,661.37 gold and \$103,859,513.75 paper, or \$261,140,367 national currency.

Total revenues for 1908 amounted to \$257,789,887 paper, a surplus of \$39,949,470 over the estimate, and in the present year, when revenues were placed at \$254,776,666, the sum of \$132,382,869 was received in the first half of the year.

EXPORTS OF GOATSKINS.

A feature in the development of Argentine trade in recent years has been the increased shipment of goatskins, which in 1908 were sent abroad to the amount of 2,615,836 kilograms, valued at \$2,538,881 national currency, as compared with 591,663 kilograms in 1875.

During the first half of 1909 the exports included 1,220,719 kilograms of skins of goats and 169,130 skins of kids.

The free entry accorded to hides at United States ports is an important feature of present conditions of the trade, as it is to that country that the greater part of the shipments are made; France, Belgium, Great Britain, and Germany following in the order named.

Argentine herds, according to the recent census, include 3,945,086 goats, an increase in thirteen years of 1,196,226, with an approximate value of \$8,321,839 national currency. The province of Cordoba is credited with the largest number, or 810,831 head, followed by Santiago del Estero, 705,127; San Luis, 468,216; La Rioja, 359,811; Catamarca, 311,548; Salta, 217,054; Mendoza, 205,427, the remainder being distributed in smaller numbers over other sections.

QUEBRACHO IN THE UNITED STATES MARKET.

Statistics prepared by the Bureau of Manufactures show that there were imported into the United States in the fiscal year 1907 from the Argentine Republic 66,810 tons of quebracho wood, valued at \$840,779, and 48,871 tons in 1908, valued at \$612,971. The wood comes in free of duty, but the extract paid a duty of one-half cent a pound up to August 5, 1909. United States imports of the extract in the fiscal year 1907 were 79,033,584 pounds, valued at \$2,319,785, and 79,186,787 pounds, valued at \$2,260,364, in 1908. Nearly all of this is recorded as having come from the Argentine Republic. Under the new United States tariff the duty on quebracho extract remains the same if not exceeding 28° Baumé, but three-fourths of a cent per pound if exceeding 28° Baumé.

VITICULTURE AND WINE PRODUCTION.

Grape culture and the production of wine in the Argentine Republic has recently been made the subject of an extended report by Señor DON RICARDO PALENCIA, the area under vine growing being given as 56,819 hectares (about 142,000 acres), and the production 3,171,000 hectoliters (83,946,000 gallons) of wine.

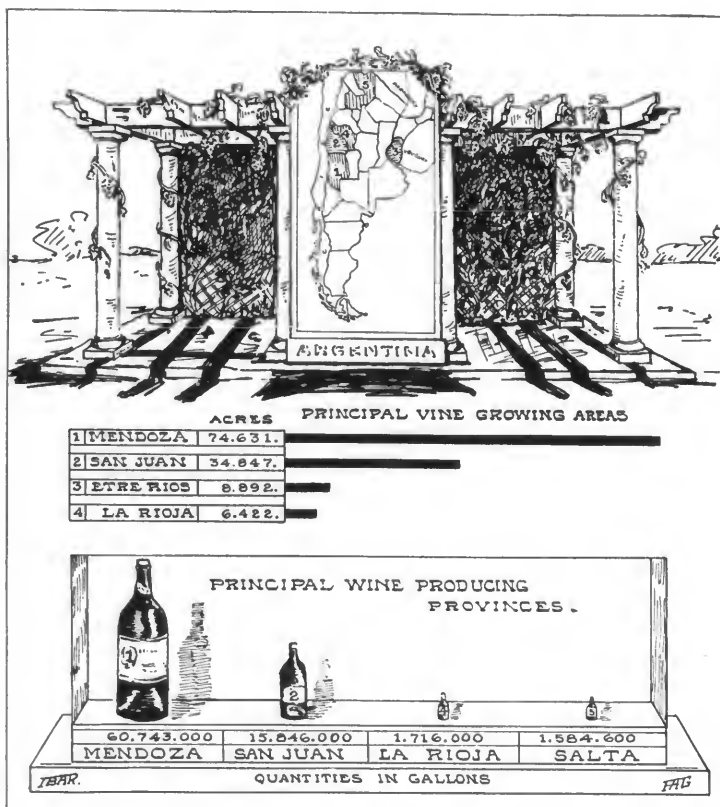
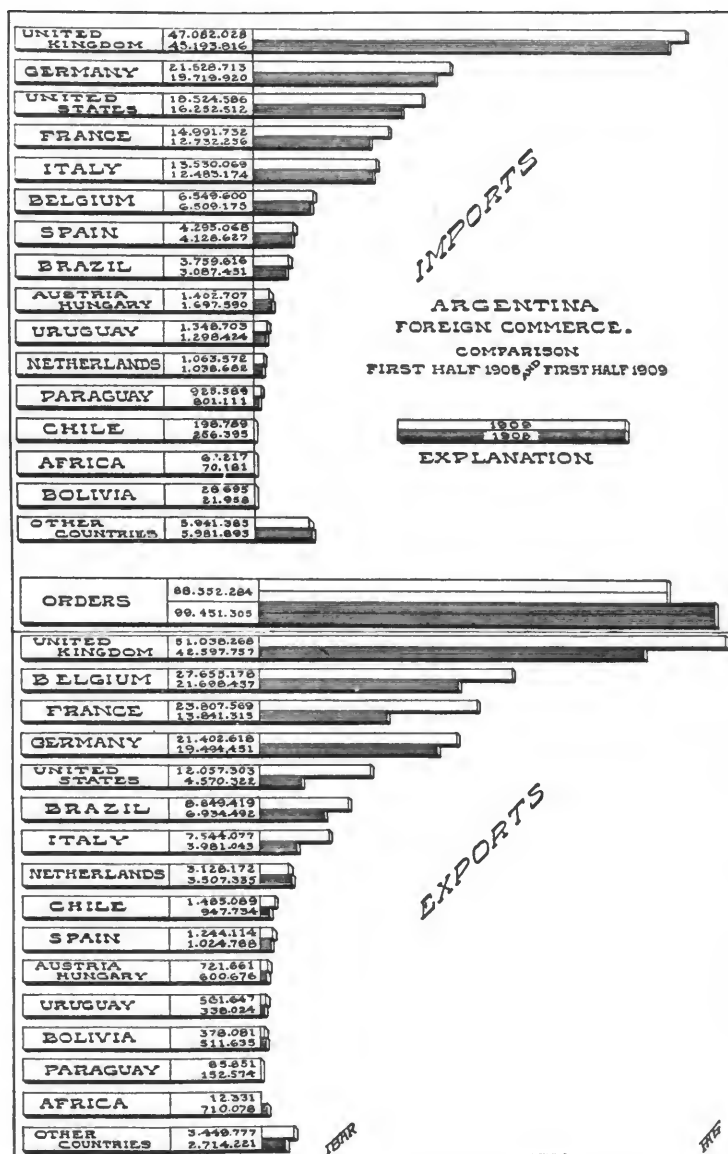


DIAGRAM SHOWING WINE PRODUCTION AND VINE GROWING AREAS OF THE ARGENTINE REPUBLIC FOR THE FISCAL YEAR 1908-9.

The value of the industry is estimated at ₧215,000,000 and its contribution to the annual trade of the Republic, ₧79,250,000.

Mendoza Province is the leading wine-producing center, with 30,215 hectares under culture; San Juan coming next, with 14,108 hectares; followed by Entre Rios, 3,600, and La Rioja, 2,600, and other sections in diminishing ratios. From Mendoza, 2,300,000



COMPARATIVE TABLE SHOWING IMPORTS AND EXPORTS OF THE ARGENTINE REPUBLIC FOR THE FIRST SIX MONTHS OF THE YEARS 1908 AND 1909.

hectoliters represent the present yearly output; from San Juan, 600,000; La Rioja, 65,000; and Salta, 60,000.

Shipments of fresh fruits are restricted owing to high rates for transportation, but the industry is rapidly expanding and, though at present confined to native consumption, the possibilities are presented of entering the European market with the Argentine product.

PATENT FEES IN THE REPUBLIC.

Argentine patent rights are granted for 5, 10, and 15 years, the fees being as follows in American currency: Caveat, \$24.70; definitive patents, 5 years, \$36.31; 10 years, \$87.91; 15 years, \$153.43. Of the fees for definitive patents, 50 per cent is cash and 50 per cent yearly installments. Applications for patents must be made on stamped paper, costing 42 cents a sheet. Other expenses usually incidental to securing a patent are: Translations, about \$2.40 a page; plates or clichés, \$1.33 to \$4.72; designs, drawings, and blueprints cost according to the character of the patent.

PROPOSED RESTRICTION OF IMMIGRATION.

The Argentine Congress has under consideration a law whereby the immigration law of October 19, 1876, shall be so amended as to eliminate the undesirable class from the large numbers of immigrants annually arriving in the country.

The bill as presented prohibits the admission of idiots, lunatics, epileptics, persons afflicted with tuberculosis or other contagious diseases, mendicants and immoral persons, anarchists, and persons previously expelled from the Republic so long as the order of expulsion remains in force.

Penalties are provided for transport companies or agents who assist in the introduction of such individuals, who shall be returned to their native countries at the expense of the company influencing their immigration.

The foreigners comprised within the limits of the law shall be unable to obtain letters of Argentine citizenship at any time.

RAILWAY TRAFFIC, FIRST HALF OF 1909.

Reports showing the marked increase in the traffic receipts of every Argentine railway for the fiscal year ended June 30, 1909, over those of the previous fiscal year furnish a striking proof of the continuously sound prosperity of the Republic.

Traffic receipts of all railways increased by \$6,618,440, or 8 per cent; the increases in round numbers for the leading lines being: Buenos Aires and Pacific, \$2,311,587; General Buenos Aires Province, \$1,459,950; Great Southern, \$997,632; Western, \$330,922; Entre

Rios, \$326,055; Santa Fe Provincial, \$272,524; Cordoba and Rosario, \$170,327; Northeast Argentine, \$155,728; Central Cordoba, Central Northern and Northwest Sections, \$145,995; Central Northern, \$126,529; Buenos Aires Central, \$97,330; Central Cordoba, \$87,597; Central Argentine, \$78,997; North Argentine, \$58,398; National Andina, \$4,866.



INAUGURAL ADDRESS OF PRESIDENT VILLAZÓN.

Through the courtesy of the Minister from Bolivia in the United States, Señor Don IGNACIO CALDERÓN, the International Bureau of the American Republics has received the address delivered on August 12, 1909, by President ELIODORO VILLAZÓN subsequent to his taking the oath of office.

The new Executive urges upon his countrymen an adequate exploitation of the abundant resources of the Republic, for which purpose means of transport are a vital necessity. The railway lines under construction from Oruro to Cochabamba, from Uyuni to Tupiza, and from Mulato to Potosi are to be pushed forward and lines between La Paz and Yungas and Yacuiba and Santa Cruz to be surveyed. Existing pacts with the Governments of Brazil and Chile, covering the Madeira-Mamore and the Arica-La Paz routes, respectively, are to be carried out vigorously and work in connection with the Puerto Suarez-Santa Cruz line actively prosecuted. New highways are to be constructed, old ones repaired, and fluvial transport facilitated in every possible manner.

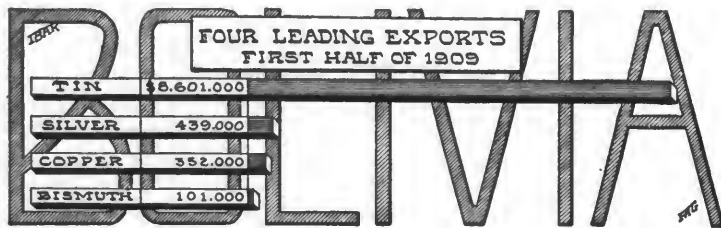
In the promotion of greater immigration, President VILLAZÓN considers the distribution of public lands an important factor, and a plan is outlined whereby the accessible regions of the Beni and Mamore rivers, of the Bolivian Chaco, and the slope of the Paraguay River may be arranged for colonization.

Although mining, which since the foundation of the Republic has been the basis of public wealth, still ranks first among the country's industries, a proper impulse given to agriculture and stock raising will raise these two branches to their proper economic importance, as fertile areas and fine grazing lands are abundant. Irrigation, the application of modern methods of husbandry, and the inbreeding of stock in accordance with sanitary and selective measures will bring due reward.

A department of mines for the protection and advancement of the mineral industry is advocated; also care in the granting of concessions and the adjudication of mining privileges.

In reviewing and forecasting the financial and commercial status of the country, President VILLAZÓN stated that the forward movement begun in 1904 had continued without interruption until 1908, at which time Bolivia was affected, as was the entire commercial world, by a financial crisis. The decline in the market price of native products caused a temporary suspension of many established enterprises and reduced operations in many others. This state of affairs is gradually being overcome and a restoration to former conditions effected.

It is not the desire of the present Executive of Bolivia to alter the established tariff rates, but he urges strict statistical returns of all duties collected and of all public revenues, so that there may be a fixed basis for estimating the possibilities of public expenditures. The placing of a foreign loan and the establishment of either a state bank or a mixed bank for the handling of public securities



are among the financial measures proposed. Attention is also called to the importance of proper sanitary regulations throughout the Republic and to the value of public instruction as a factor in the nation's uplift.

FOREIGN COMMERCE, FIRST HALF OF 1909.

Figures of the foreign trade of Bolivia during the first six months of 1909, as reported by the Department of the Treasury and Industry (*Ministerio de Hacienda é Industria*) of the Republic, are represented by exports to the value of Bs. 19,180,020^a (\$7,288,000), and imports, Bs. 16,490,376 (\$6,266,000).

In exports a gain is shown of Bs. 297,292 (\$110,700), and in imports a loss of Bs. 2,360,702 (\$893,000) as compared with the corresponding period of the preceding year.

^aThe boliviano is officially valued at 19½¢, or a little more than 38 cents United States currency.

Tin, copper, bismuth, and silver constitute the reported exports. Tin shipped to the value of Bs. 17,382,349 shows an advance of Bs. 780,558, whereas the next ranking article on the export list, silver, declined by Bs. 369,916, the entire shipments being valued at Bs. 879,118.

Bismuth exports, valued at Bs. 203,700, advanced by Bs. 28,900, but copper declined to Bs. 714,853, a loss of Bs. 106,024. For gold no shipments are noted.

Through the customs agency at Antofagasta remarkable gains are noted in imports, but elsewhere, with the exception of Tupiza, the decrease is general.

The "*Revista del Ministerio de Hacienda é Industria*" (July 20), containing the above data, publishes also a complete résumé of the trade of the Republic during the year 1908.



MODIFICATION OF TRADE-MARK LAW.

A decree dated August 6, 1909, declares that the provisions of the Brazilian law of September 24, 1904, requiring the publication in the "*Diario Oficial*" of the certificate of registration and description of national and foreign trade-marks are inapplicable to trade-marks which have been deposited at the International Bureau at Berne, in conformity with the Madrid convention of 1891.

An appeal against the admission to registration and deposit in the Junta Commercial of Rio de Janeiro of an international trade-mark can be made by anyone who considers himself prejudiced by it as regards some national mark previously registered. The term allowed for making these appeals shall be five days, reckoning from the publication of the decision; but if the party interested does not reside at Rio de Janeiro, or if he have no special attorney there, the term shall commence to run thirty days later.

CUSTOMS RECEIPTS FOR FIRST HALF OF 1909.

The receipts at the custom-houses of Brazil for the first half of 1909 amounted to 117,090,349 *milreis* (\$35,127,104), as compared with 129,566,248 *milreis* (\$38,869,874) in the corresponding period of 1908. Of this amount 36,189,830 *milreis* (\$10,856,949) were collected

at the custom-house of Rio de Janeiro, 15,720,070 *milreis* (\$4,716,021) at the custom-house of Para, and 10,790,491 *milreis* (\$3,237,147) at Santos.

The internal revenues in 1908 amounted to 43,757,000 *milreis* (\$13,127,100), against 46,393,206 *milreis* (\$13,917,961) in 1907.

TREATY OF COMMERCE AND NAVIGATION WITH ECUADOR.

The treaty of commerce and navigation concluded at Rio de Janeiro, May 10, 1907, between Brazil and Ecuador was ratified by the Brazilian Congress August 10, 1909.

ACRE TERRITORY.

Commissioners from the Acre Territory visited Rio de Janeiro in July of the present year for the purpose of laying before the Government the claims of this Territory to statehood. The Acreans claim that both from the standpoint of population and revenue the Territory is now ready to be admitted as a State of the Union. The resident population of Acre is estimated at 70,000 inhabitants, and is increasing constantly as the result of the great migratory movement to that region from the drought-affected States of northern Brazil. Their principal claim to the right of self-government, however, is based on the revenue derived from this Territory. In 1907 Acre contributed to the public treasury in revenue 14,000 *contos* (about \$4,200,000 United States money), this amount being exceeded only by that derived from the State of São Paulo and the Federal District. In 1904 Brazil paid Bolivia, as indemnity for the Acre region, 32,000 *contos* (\$9,600,000), and up to June, 1909, the Government had received in revenues from this Territory the enormous sum of 62,000 *contos* (\$18,600,000), or double the amount paid. This does not include the revenue derived from import duties, which amounts to several thousand *contos*. In the export trade of Brazil for 1907 the Acre Territory occupied second place, with exports valued at 68,000 *contos* (\$20,000,000), in a total of 860,690 *contos*.

Previous to the year 1899 the Acre region formed part of the State of Amazonas, but in that year it was transferred to Bolivia. After the revolution, led by PLACIDO DE CASTRO, Acre was restored to Brazil by the treaty of Petropolis, which provided for the administration of the region by prefects. The Territory has an area of 73,340 square miles, and is divided into three administrative districts, known as "Alto-Acre," "Alto-Purus," and "Alto-Juruá." The principal cities and towns are Rio Branco, Xapury, Porto Acre, Senna Madureira, and Cruzeiro do Sul.

The sanitary condition of the country has greatly improved in recent years, the mortality of Xapury now comparing favorably with that of the most healthful cities. The climate is not excessively hot, the temperature averaging 26° C. during the day and 20° C. during the night.

Rubber is the leading product and sole source of revenue, although the soil is well adapted to the cultivation of cereals and fruits of all kinds. The forests abound in timber and hard woods. At the National Exposition, held in 1908, there were exhibited one hundred and twenty specimens of woods from the Acre forests. Other products which abound here in their wild state, but which have not yet been industrially utilized to any extent, are the Brazil nut, copahiba oil, cacao, sarsaparilla, and Peruvian bark.

A Presidential decree, bearing date of August 12, 1909, reorganizes the financial administration of Acre Territory, creating two more custom-houses, one at Senna Madureira and another at Cruzeiro do Sul, three fiscal agencies, and five fiscal registries.

BOUNDARY TREATY WITH PERU.

The Minister of Foreign Affairs of Brazil signed on September 8, 1909, with the Peruvian representative at Rio de Janeiro, a boundary agreement based on the principle of the *uti possidetis* from the headwaters of the Javary to parallel 11°.

RATIFICATION OF NAVIGATION CONVENTION WITH PERU.

The agreement concluded at Lima April 15, 1908, between the Governments of Brazil and Peru relative to the navigation of the Japura or Caqueta River was ratified by the Brazilian Congress on September 3, 1909.

RIVER NAVIGATION SERVICE.

The Department of Industry and Public Works has called for bids for the establishment of a line of steamers on the Ibicuhy and Uruguay rivers, in the State of Rio Grande do Sul. The specifications call for three round trips per month between Uruguayana and Santo Izidro on the Uruguay River, and the same number on the Ibicuhy River between Uruguayana and Cacequi, proposals to be received up to September 9, 1909.

RUBBER CONGRESS AT MANAOS.

A commercial and industrial congress will be held in Manaus, capital of the State of Amazonas, from the 22d to the 27th of February, 1910, in which will be represented the Federal Government of

Brazil, the Brazilian rubber-producing States, the Peruvian, Bolivian, Venezuelan, and Colombian Governments, as well as various industrial, commercial, and agricultural societies.

The work of the congress will be especially devoted to the solving of all problems dealing with the rubber trade of the Amazon, Brazilian, or foreign regions. In connection with the congress samples of gum and manufactured rubber will be exhibited. These samples must arrive in Manaus by the end of January at the latest.

FLOATING DOCK AT RIO DE JANEIRO.

The Department of Industry and Public Works of Brazil has accepted the bid of Wickers Sons & Maxim for the construction of the floating dock at the port of Rio de Janeiro. Messrs. Wickers & Maxim propose to build the dock for 2,923,200 *milreis* (about \$1,461,000 United States money) and deliver it within eleven months.

BANANA EXPORTS.

The banana export trade of Brazil has increased enormously in the last few years, as may be seen from the following table giving the exports of this product at the principal ports of shipment in 1907, compared with those made in 1903:

Ports.	1907.	1903.
	<i>Bunches.</i>	<i>Bunches.</i>
Santos.....	339,595	63,791
Paranagua.....	692,587	182,486
Florianopolis.....	747,435	552,015
Other ports.....	103,427	864,236
Total.....	1,882,904	959,528

While Florianopolis is at present the leading port of shipment, Santos is becoming more and more a center for the production and export of this product. Banana cultivation is carried on extensively in the district of Santos. In 1905 it was estimated that there were 917,800 banana trees in bearing in this district, while the production of this section in 1907 was estimated at 1,601,600 bunches, worth 1,802,240 *milreis* (\$540,672). The exports from the port of Santos increased from 231,297 bunches, valued at 184,471 *milreis* (\$55,341), in 1906, to 339,505 bunches, worth 372,610 *milreis* (\$111,783), in 1907. The exports go chiefly to the Argentine Republic and Uruguay.

EXTENSION OF TELEGRAPH CONCESSION.

The Brazilian Government has extended the term of the concession of the Amazon Telegraph Company to April 2, 1945. The concession

provides for the laying of a second cable between Belem and San Jose de Amataray, the same to be in operation within eighteen months from the date of the contract. The company will continue to charge the same rates as formerly for the foreign service, but promises to make the following reductions in the rates for the Brazilian service: A reduction of 20 per cent on the present rates as soon as the number of words transmitted amounts to from 500,000 to 600,000 annually; 30 per cent when from 600,000 to 700,000 words are sent annually; and 40 per cent when from 700,000 to 900,000 words are dispatched annually. The Government pays the company an annual subsidy of £17,125.

THE TRADE IN ORCHIDS.

Interesting information in regard to the growing of and trade in orchids has been forwarded by United States Consul GEORGE A. CHAMBERLAIN from Pernambuco. The State of that name is well known as the habitat of many beautiful varieties of this highly valued plant, principal among which are the Cattleyas: *labiata*, *leopoldii*, *guttata*, and *granulosa*.

Besides these Cattleyas, other species well represented are the *Burlingtonia fragrans*, *Oncidium devaricatum*, *Oncidium gravesianum*, and the *Miltonia spectabilis moreliana*. The flowers of almost all of these are spectacular and some of them remarkably beautiful, but in trade only the Cattleyas have any importance, and of these, in turn, the labiatas are the most profuse and give the greatest return. They are the large-lipped, flaring flowers of every shade of mauve and pink, centered with magenta and yellow, that have become during the last few years a frequent feature of floral decoration of homes. They grow generally 3, 4, and 5 blooms on a stalk, and their delicious fragrance greatly resembles the odor of lilacs. Of *Cattleya labiata*, Pernambuco exported about 15,000 plants of 8 leaves and upward during the season ending with April.

The plants are gathered at three central points—Caruaru, Garanhuns, and Timbauba. The method is simple. Buyers representing foreign firms, or a firm on the coast, take up their residence at these points and announce that they are ready to receive plants. The news soon spreads, and on every market day the plants come in, sometimes brought by poor peasants in little bunches along with a goatskin or two and corn for the general market, sometimes brought by regular collectors in large cargoes.

The plants are immediately sorted according to quality and the number of leaves in good condition. Species other than the labiata are bought in very small quantities, as the demand for them in the home market is restricted to collectors. The labiatas having less

than 8 or sometimes 7 leaves are discarded, as they are too small for profitable shipment. Their collection is discouraged, as should it be long continued the plant would absolutely disappear from the regions worked. As it is, vandalism has reduced the production of this district enormously and bids fair to wipe out the trade.

Plants of 8 leaves are received in great quantities, and are paid for at about 9 cents apiece. Plants of 15 leaves or over bring 18 cents; 20 to 30 leaves, 32 cents; 30 to 40 leaves, 45 cents; above 40 leaves a special bargain is made for each plant. During the present season an extraordinary plant was brought in, numbering 206 leaves. This plant was bought for about \$5, and is worth in the United States about \$150. In full bloom it should bear 500 flowers. Like the grape cluster of Eshcol, it was carried in to market strung on a pole and borne by two men, who said they had brought it 40 miles.

The *Cattleya labiata alba* is also occasionally found in this district. It is a hybrid or diseased plant whose exquisite bloom is snow white. It is exceedingly rare.

The preparation, transportation, and shipment of plants in the Pernambuco district is not expensive. Correctly packed the plants will stand thirty to forty days' confinement and remain in good condition. Freight and expenses to New York per average case of 80 plants amount to about \$15. An export duty of about 64 cents per hundred plants is charged, and they pay in the United States 25 per cent ad valorem.

RAILWAY NOTES.

The Leopoldina Railway Company (Limited) has secured a concession from the Brazilian Government to extend its northern branch as far as Rio de Janeiro and to build a line to connect with the port of Cabo Frio. The contract provides for the rock ballasting of the railway around the bay of Rio de Janeiro and to Petropolis, for its extension into Rio de Janeiro to connect with the new docks, and for a further extension to give through service from Rio de Janeiro to Victoria, the first important port north of Rio de Janeiro, and the capital of the State of Espirito Santo. The service to Victoria, which is to be completed within two years, is to include a sleeping and dining car service, the establishment of immigrant colonies, the founding of experimental farms, and the development of meat packing and similar establishments.

President PEÇANHA has signed a decree affording the American-Canadian syndicate, which owns or controls the public utilities of Rio de Janeiro, permission to electrify the railway from the city to the top of Mount Corcovado, the unique peak which rises from the edge of the city of Rio de Janeiro to a sharp point 2,300 feet above

the ocean at its base. This will enable the company to supply a rapid and cheaper service up this mountain, near the top of which a new and modern hotel is to be constructed.

Mr. LUIZ SOARES DE GOUVÊA has obtained the government contract for the construction of the section of the Rio Grande do Norte Central Railway, comprised between Taipu and Caico. By the terms of the contract, work must be begun within three months from the date of the contract and the line be finished and equipped for operation within thirty months thereafter.

The Brazil Great Southern Railway Extensions Company is the title of an English company recently organized in London for the purpose of building a railway between Itaquí and San Borja and undertaking other railway projects in southern Brazil.

NEW INDUSTRIAL ENTERPRISE.

A Brazilian corporation known as the *Empreza Carbonifera Brasileira* has established at Bom Jardim, State of Minas Geraes, a well-equipped plant for the manufacture of briquettes from peat and lignite, of which extensive beds are found in the vicinity. An analysis of this peat shows a caloric value of 5.32, 7.5 per cent ash, 8 per cent water, and 62 per cent carbon per kilogram, which gives an idea of its industrial value. It is expected that the factory, when fully equipped, will be able to turn out 200 tons of briquettes, in addition to a variety of by-products.



SHIPMENT OF CHINCHILLA SKINS.

Among the fur-bearing animals of Chile, the chinchilla supplies the greater number of pelts for shipment abroad, though the number is apparently undergoing a diminishing ratio.

During the six years ended December 31, 1908, as reported by United States Consul WINSLOW at Valparaiso, 2,006,309 skins were exported, the year 1905 representing the high-water mark for shipments with 1,461,200. Since that time there has been a gradual decline to 38,178 in 1908. The price per dozen has advanced from \$18.25 in 1903 to \$43.85 in the latest year.

FOREIGN INVESTMENTS IN NITRATE.

The total capital invested in the nitrate industry of Chile is estimated at approximately \$127,500,000, of which amount \$53,500,000 represents British interests, \$52,500,000 Chilean, and \$16,500,000 German.

INSURANCE IN THE REPUBLIC.

The report of the government inspector of insurance, Señor Don M. VILLAMIL BLÁNCO, concerning life insurance in the Republic during 1908 shows that the four foreign companies operating in the country had policies to the value of ₱61,644,245.50 (\$22,498,783), on which premiums were collected of ₱2,826,192.77 (\$1,031,560). Payments on policies were made in the sum of ₱931,770.62 (\$340,096) by the companies, who also invested ₱2,739,153.34 (\$999,790) in Chilean securities.

Native companies, two in number, had policies amounting to \$2,157,100, on which \$102,381 were collected in premiums and \$127,759 paid out.

These figures show distinct gains over the business recorded for the two preceding years, and indicate the value of this class of enterprise in the Republic.

Foreign companies embrace two well-established New York companies, one of Canada, and one of Brazil.

All foreign companies are required to deposit with the Chilean Government an amount varying from \$40,000 to \$60,000, according to the size of the company, as a guaranty that all claims will be duly adjusted and that the laws of the land be complied with. A 2 per cent tax is collected and quarterly statements required.

In regard to fire insurance, there are 16 foreign companies in the field, carrying risks of \$70,574,922, and 22 Chilean enterprises. The companies are mainly of British origin, with one or two German, French, and Italian houses.

The European companies usually select business houses of note to act as their agents, and these firms conduct the insurance section merely as a side issue, though, apparently, with favorable results.

National companies financed and managed by Chilean agencies are numerous and prosperous, but no United States companies are reported.

Fire insurance companies are divided into two classes, according to the capital stock. Those having ₱500,000 (\$182,500) or more are in class 1 and those with smaller capital in class 2. All of the foreign companies are in the first class as are nine of the native companies.

United States Consul ALFRED A. WINSLOW states that while there are several strong foreign insurance companies doing business in the

Republic, there are abundant opportunities for more, and correspond-ence addressed to the International Bureau urges greater activity in this line on the part of United States companies.

On September 1, 1909, the decree issued by the Minister of Public Works providing for the insurance of parcel post packages within the Republic became effective.

The limits of this insurance are fixed at ₱200, or about \$40 gold, the fees being at the rate of 4 cents for each ₱20 (\$4) up to ₱100 and 2 cents for each ₱20 additional.

IRRIGATION PROJECTS.

Through the Minister of Chile in the United States the International Bureau of the American Republics is informed of projected irrigation works to be undertaken on a large scale by the Chilean Government.

As proposed in the irrigation bill now under the consideration of a parliamentary commission, ₱5,000,000 are to be expended.

Among the works to be undertaken are the Laja Canal, issuing from the river of the same name, to cost ₱1,000,200, to irrigate 30,000 hectares augmenting the value of the irrigated area fourfold and increasing the public resources by ₱9,000,000; damming of the Zeno lagoons at an expense of ₱500,000; irrigation of Nilahue, in the Department of Vichuquen, at an expenditure of ₱6,000,000, whereby 30,000 hectares will be benefited, the value of the section be increased sixfold, and public resources augmented by ₱15,000,000; extension of the Mepilla Canal by 120 kilometers, increasing the value of the area irrigated fourfold and adding ₱12,000,000 to public resources; irrigating the llanos of La Chimba, in the Department of Ovalle, whereby 10,000 hectares will be treated at a cost of ₱3,000,000 and increasing the value of each hectare by ₱500.

INCREASE OF WHEAT EXPORTS.

The Minister of Chile in the United States, Señor DON ANÍBAL CRUZ, in a statement concerning the foreign commerce of Chile for the first half of 1909, calls attention to the increased ratio of wheat exports.

During the first six months of the current year wheat was shipped abroad to the amount of 91,942,250 kilograms, valued at ₱11,635,587, as compared with 80,590,832 kilograms, worth ₱6,560,538, in the same period of 1907. Immediately prior to the latter year wheat production in the Republic was not sufficient for local needs and large imports were made.



COLOMBIA

COMPETITIVE BIDS FOR GOVERNMENT CONTRACTS.

In accordance with recently enacted legislation, all contracts made by the Colombian Government with regard to sales, construction works, repairs, printing, transports, and for all other services which are an expense to the treasury, shall be carried out by public competitive bids. Contracts for the rent and transfer of public lands and property shall also be made by competitive bids.



COSTA RICA

PRACTICAL TRAINING IN PUBLIC SCHOOLS.

In March, 1910, new systems for the practical training of public-school pupils in Costa Rica will be introduced.

President GONZÁLEZ VÍQUEZ, on September 25, 1909, signed the decrees necessary for the establishment of preparatory schools of arts and crafts (*Escuelas Preparatorias de Artes y Oficios*) and of schools of domestic instruction for women in the various provincial capitals.

In addition to the regular scholastic course the new regulations prescribe training in various manual branches, including carpentry, cabinetwork, horseshoeing, tailoring, shoemaking, painting, and tinning.

In the women's department, instruction is to be given in cooking, washing and ironing, sewing, etc., and such branches of higher manual training as may conduce to the application of improved methods in all walks of life.

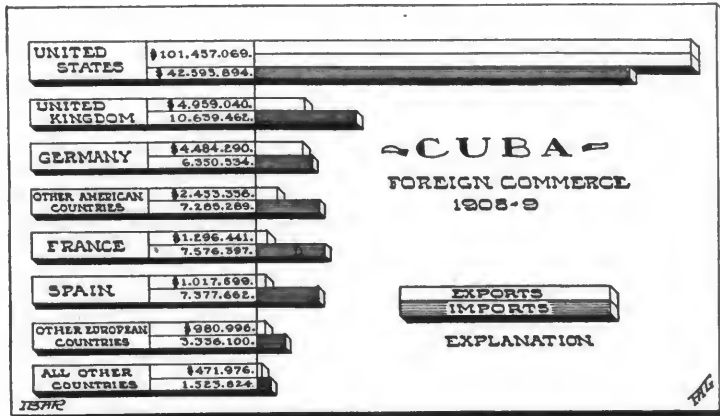
GOLD MINING IN THE REPUBLIC.

The British minister in Costa Rica reports that there are four companies, all American, mining gold in the Republic, besides other concerns still in the pioneer stage, and one not at present working. The total output of gold during 1909 is estimated at a value of £250,000. In the Abangares district, about 20 miles north of the Gulf of Nicoya, two companies produce gold to the value of £18,000 a month.

CUBA

FOREIGN COMMERCE, FISCAL YEAR 1909.

According to figures issued by the Cuban Government, the foreign commerce of the Republic for the fiscal year ending June 30, 1909,



STATEMENT OF IMPORTS AND EXPORTS OF THE REPUBLIC OF CUBA FOR THE FISCAL YEAR 1908-9.

was represented by imports to the value of \$83,900,234, and exports, \$115,637,047. As compared with the preceding twelve months, values and distribution were as follows:

Countries.	Imports.		Exports.	
	1907-8.	1908-9.	1907-8.	1908-9.
MERCHANDISE.				
United States.....	\$46,450,908	\$42,593,894	\$31,715,584	\$99,973,369
Germany.....	7,762,751	6,350,534	3,741,795	4,484,290
Spain.....	8,816,810	7,377,662	795,687	1,017,599
France.....	5,854,474	4,793,469	1,768,742	1,296,441
United Kingdom.....	14,550,912	10,639,462	5,145,571	4,959,040
Other American countries.....	8,301,208	7,266,269	2,718,005	2,455,356
Other European countries.....	3,024,233	3,536,100	868,179	980,998
All other countries.....	1,631,778	1,523,624	692,984	471,976
Total.....	96,993,134	83,900,234	97,447,447	115,637,047
SPECIE.				
United States.....	136,525	18,348	12,027,290	1,483,700
Spain.....	481,516	13,120	165,171	442,846
France.....	1,217,022	2,782,928	2,480,644	.....
All other countries.....	724	140	1,915	.....
Total.....	1,835,787	2,814,536	14,675,020	1,926,546

NEW MEMBERS OF THE PAN-AMERICAN COMMITTEE.

The President of Cuba named, under date of September 1, 1909, two additional members to serve as members of the Pan-American of Cuba, the functions of which are to secure the approval of the conventions adopted by the delegates to the Third International Conference of American States and to aid the International Bureau in the collection and distribution of information relative to the various republics.

The new members are Señores MANUEL MÁRQUEZ STERLING Y LORET DE MOLA, Minister Resident of Cuba in Rio de Janeiro, and Dr. FERNANDO SÁNCHEZ DE FUENTES Y PELÁEZ, of the University of Havana.

EDUCATION IN THE REPUBLIC.

On the occasion of the opening of the public schools of Cuba on September 12, 1909, Dr. GONZALO ARÓSTEGUI, of the Board of Education, stated that the number of pupils attending government institutions in Havana was 34,000. At the time of the taking of the first school census in 1899, under the supervision of the Commissioner of Education, Mr. HANNA, pupils at the public schools numbered 27,619, and in 1902 the number had increased to 30,184.

The total number attending school throughout the island on June 30, 1907, was 171,017, or 31.06 per cent of the scholastic population of the country, which was given as 541,445.

TELEPHONE CONCESSION.

By a decree of September 13 the Cuban Executive rescinded the concession of April 24, 1909, whereby the privilege was granted for the exploitation of the telephone system of Havana, which reverts to the city in 1911.

On the same date the same company was authorized to establish, with its center in Havana, a long-distance system connecting the whole island.

The former concession was annulled as a consequence of article 471 of the telephone act of June 18, 1909, which provides that all contracts and concessions for public services shall be regularly advertised and granted to the highest bidder.

Long-distance telephones were barred under the royal decree of May 12, 1890, and the present act is the result of special legislation.

Under the old telephone legislation companies were authorized to operate within a radius of 10 kilometers and enjoyed a monopoly during the term of the franchise. Present legislation creates no monopolies, and the Cuban Telephone Company, which is the new name of the old company, made the first application under the new law and obtained the concession.

The decree excludes the company from towns where there are local systems, but authorizes such connections as may be deemed desirable.

The company is subjected to the payment of regular taxes, but is allowed to turn over to the State in lieu of that tax an amount equal to 4 per cent of the gross earnings per annum.

DOMINICAN REPUBLIC

BUDGET ESTIMATE FOR 1909-10.

The budget law of the Dominican Government for the fiscal year 1909-10 estimates a balance of receipts and expenditures in the sum \$4,024,230.

Receipts from customs are estimated at \$3,210,000; internal revenues, \$460,000; posts and telegraphs, \$35,000; consular fees, \$15,000; stamped paper, \$43,000; and receipts from certain state properties, \$261,230.

ECUADOR

FOREIGN TRADE IN 1908.

Figures of the foreign trade of Ecuador recently received, indicate a much larger total for the commercial transactions of 1908 than was reported in previously published statements.

Exports amounted in value to \$13,279,603 and imports to \$10,277,365, a total trade valuation of \$23,556,968. In exports, a gain of \$1,486,390 is shown as compared with 1907, and an advance of \$427,378 in imports.

In an extended report on the subject furnished by United States Consul-General H. R. DIETRICH, the value of exports shipped to the leading countries was as follows:

France.....	\$5,052,885
United States.....	3,871,462
Great Britain.....	1,761,387
Germany.....	991,782
Spain.....	799,793

Cacao, which was shipped to the amount of 70,662,042 pounds, represented a valuation of \$8,868,520 and formed the bulk of exports

to France, the leading receiver of Ecuadoran products. Shipments to that country were 37,017,077 pounds, valued at \$4,869,085, the United States ranking next with 12,840,883 pounds and \$1,533,138, followed by Great Britain with 8,906,823 pounds and \$1,028,972; Spain, 5,602,813 pounds and \$733,386, and Germany, 4,229,000 pounds and \$434,963.

Hats rank next to cacao on the export list, \$799,284 representing the total value shipped, of which \$221,360 went to the United States.

Coffee shipments were 8,331,875 pounds, worth \$520,920, Chile taking 2,989,059 pounds, worth \$196,600; Germany, 2,356,673 pounds, worth \$138,368; and the United States 1,149,502, worth \$72,685.

Ivory nuts and rubber figure for \$492,626 and \$421,761, the values of which sent to the United States were \$130,498 and \$312,575, respectively. Germany alone outranks the United States as a receiver of ivory nuts, 9,001,366 pounds, worth \$192,86, being credited to that country.

Leading countries of origin for imports were: Great Britain, \$3,602,409; Germany, \$2,149,117; the United States, \$2,048,846; France, \$738,614; Italy, \$468,785; and Belgium, \$418,523.

Textiles other than silk figure for \$2,066,514 on the import list taking first rank; followed by foodstuffs, \$1,137,949; gold coin, \$931,152 (principally from Great Britain); iron and hardware, \$666,485; clothing, \$574,082; silk fabrics, \$528,504; and wines and liquors, \$527,595; no other articles exceeding \$250,000 in value.

France, Great Britain, the United States, Spain, and Austria show noteworthy gains in their purchases from Ecuador during 1908, and Germany, France, Great Britain, Belgium, and Italy increased their sales in the country.

TAX ON COMMERCIAL TRAVELERS.

On August 1, 1909, the law of February 1, 1907, compelling traveling salesmen to pay a license of 100 *suces* (equal to \$50 United States currency) before being allowed to sell their wares in Ecuador, became effective. The law also sets forth that any infringement will be punishable by a fine double the amount required to procure the license. The license so procured is null and void when such salesman leaves the country.

SANITARY MEASURES.

The Government of Ecuador has appointed Dr. LUIS FELIPE CORNEJO GOMEZ as Director of the Public Health Service in succession to Dr. BOLIVAR J. LLOYD, of the Marine-Hospital Service of the United States.

The sanitary law of the Republic, abrogating that of November 3, 1908, provides for the expenditure of certain specified funds for the sanitation of Guayaquil and other municipalities under the direction of the proper officials.



**NEW PRESIDING OFFICER FOR THE INTERNATIONAL CENTRAL
AMERICAN BUREAU.**

On September 17, 1909, the office of president of the International Central American Bureau, located in the capital of Guatemala, was transferred to Señor Don JOSÉ PINTO, delegate from Guatemala, in succession to Señor Don RICARDO J. ECHEVERRÍA, delegate from Costa Rica.

This transfer was made in accordance with the rules of the organization on the date fixed for the expiration of Señor ECHEVERRÍA's term of office. Previous to his retirement the ex-president formally inaugurated the library and lecture room of the bureau.

HONOR TO ROBERT FULTON.

The Guatemalan government has paid honor to the memory of Robert Fulton by placing a bronze bust of the great inventor in the principal park of the capital. This action was taken in consequence of a presidential decree of September 8, and the bust was placed in position on October 10, the date of the hundredth anniversary of the application of steam to fluvial transport.

The decree is as follows:

The Constitutional President of the Republic, whereas: The eventful discovery of the application of steam to navigation must be classed as the occurrence which has had the greatest influence in the development of commerce, the all-important factor of progress in all phases of modern activity; and whereas the personality of Robert Fulton, a model of singleness of purpose and perseverance, commands the gratitude of all nations as that of a superman, who has bestowed benefits on humanity, be it therefore resolved: That on the 10th of October next, in commemoration of the centennial of such discovery, a bronze bust of Robert Fulton be placed in the Estrada Cabrera Park, in the capital of the Republic. Let it be known. Estrada C. The Secretary of State in the Department of Fomento. Joaquín Mendez.



HAITI

ORANGE FLOWERS FROM AN INDUSTRIAL POINT OF VIEW.

The "*Bulletin Officiel de l'Agriculture et de l'Industrie*" of Port-au-Prince publishes in its latest issue an interesting monograph on the orange flower from an industrial point of view, in which the writer, Mr. H. DESGRAVES, a chief of bureau in the Agricultural Department, states that Haitians have at hand all the elements of a lucrative industry and at practically little expense, for orange trees abound in the Republic, and distilled orange flower water, technically known as "hydrolat," and neroli oil find a ready market not only in the country but abroad as well.

The oil obtained from the flower, and which is called "neroli oil," is much stronger than hydrolat, and commands twenty times the price, 20 drops, or scarcely a gram, bringing sometimes as high as \$1.50. The origin of the name neroli is not exactly known. Some say that it is derived from that of the Roman emperor NERO, whose love of perfumes was so great that the ceiling of his dining room represented a sky from which all kinds of perfumes rained day and night. Others think it was first made by the Sabines, who, in order to distinguish it from other perfumes of that time, called it *nero*, which signified strong. This oil enters into the composition of various products, especially perfumery. It plays an important rôle in the preparation of eau de cologne and numerous other toilet waters.

The essence obtained from bitter orange flowers is considered better and stronger than that obtained from the flower of sweet oranges. To gather them a sheet is stretched under the trees in dry weather, or two hours after sunrise, when the dew has completely evaporated. The branches are then shaken to bring down the flowers. This is repeated every other day during the flowering season. These precautions are absolutely necessary, for if the trees are shaken immediately after a rain or before the dew is dry the flowers lose their perfume and spoil very quickly. The flowers give the greatest amount of neroli oil and the sweetest perfume when they are just ready to open.

FINANCIAL CONDITION OF THE REPUBLIC.

In the statement covering the general financial conditions of the Republic of Haiti, as set forth by the Secretary of the Treasury in his report to Congress, the budget estimates for the fiscal year 1909-10 amount to \$2,694,106.57 gold and G. 6,684,656.38, as against \$2,777,-687.93 gold and G. 7,283,953.33 for the preceding year, or a decrease of \$83,581.36 gold and G. 599,296.95.

The bank statement of the Banque Nationale d'Haiti, which administers the service of the internal and foreign debt of the country, shows receipts amounting to \$849,175.66 gold and G. 4,248.75 for the six months from October, 1908, to March, 1909.

The amounts collected and paid by the Central Bureau of Receipts and Expenditures from October 1, 1908, to March 31, 1909, balanced at \$534,403.60 gold and G. 4,930,667.61, while up to March 31, 1909, the government expenses amounted to \$25,430,330.57 gold and G. 9,976,256.50.

During the first three months of the fiscal year 1908-9 the import and export duties collected at the different ports of the country amounted to \$216,359.79 gold and G. 798,729.15 and \$403,517.12 gold and G. 5,023.76, respectively.

FOREIGN RELATIONS OF THE REPUBLIC.

In the report which Mr. MURAT CLAUDE, who was appointed Secretary of State in December 1908, recently submitted to the Congress of Haiti on the foreign affairs of the country, he states that relations with the foreign powers are most satisfactory and the questions pending between them will, barring unforeseen circumstances, be settled amicably in the best interests of all the parties concerned.

Several of the French claims against the Government have been satisfactorily settled, one by arbitration, while the claim in regard to tramways, presented by the German Legation, is now pending in the courts.

On January 7, 1909, an arbitration convention was concluded between the United States and Haiti. This convention, which makes arbitration obligatory, except in cases affecting honor, dignity, and independence, was ratified by the President of Haiti on March 22, 1909, and only awaits the sanction of the legislative body for the exchange of the ratifications.

In this connection it is noted that the other Powers accredited to the Government of Haiti have expressed a desire to submit to arbitration the differences existing between them and the Republic. This is regarded as a cause for congratulation, as this new line of diplomacy denotes not only honorable progress, but is also destined to put an end to violence and imaginary claims at home and to promote the rule of justice in foreign relations.

The relations with the neighboring Dominican Republic are at the present time on a most friendly footing, and consequently there is no doubt that the delicate boundary question which has for a long time been pending between the two countries will be satisfactorily settled.

In the closing paragraph of the report the Secretary calls attention to the friendly manner in which almost all the sovereigns and heads

of foreign governments responded to the autograph letter of President SIMON announcing his election to the office of first Magistrate of the republic.

**PARTICIPATION IN THE INTERNATIONAL EXPOSITION OF
BRUSSELS.**

The Haitian Government has accepted the invitation of the Belgian Government to participate in the International Exposition which is to be held in Brussels during 1910.



REFUNDING OF THE FOREIGN DEBT.

The circular issued by the Council of Foreign Bondholders in connection with the projected refunding of the national debt of Honduras, as published in "*La Prensa*" of September 7, fixes August 4, 1910, as the possible limit for the ultimate settlement of the matter.

Bondholders of the 5 per cent loan of 1867, of the 10 per cent railway loan of the same year, of the 6½ per cent railway loan of 1869, and of the 10 per cent railway loan of 1870 are affected by the project.

Settlement is to be effected through the negotiation of a loan with the house of J. P. Morgan & Co., of New York, and specially appointed representatives of the Government of Honduras are to handle the subject in conference with the financiers of the United States.

ARBITRATION TREATY WITH BRAZIL.

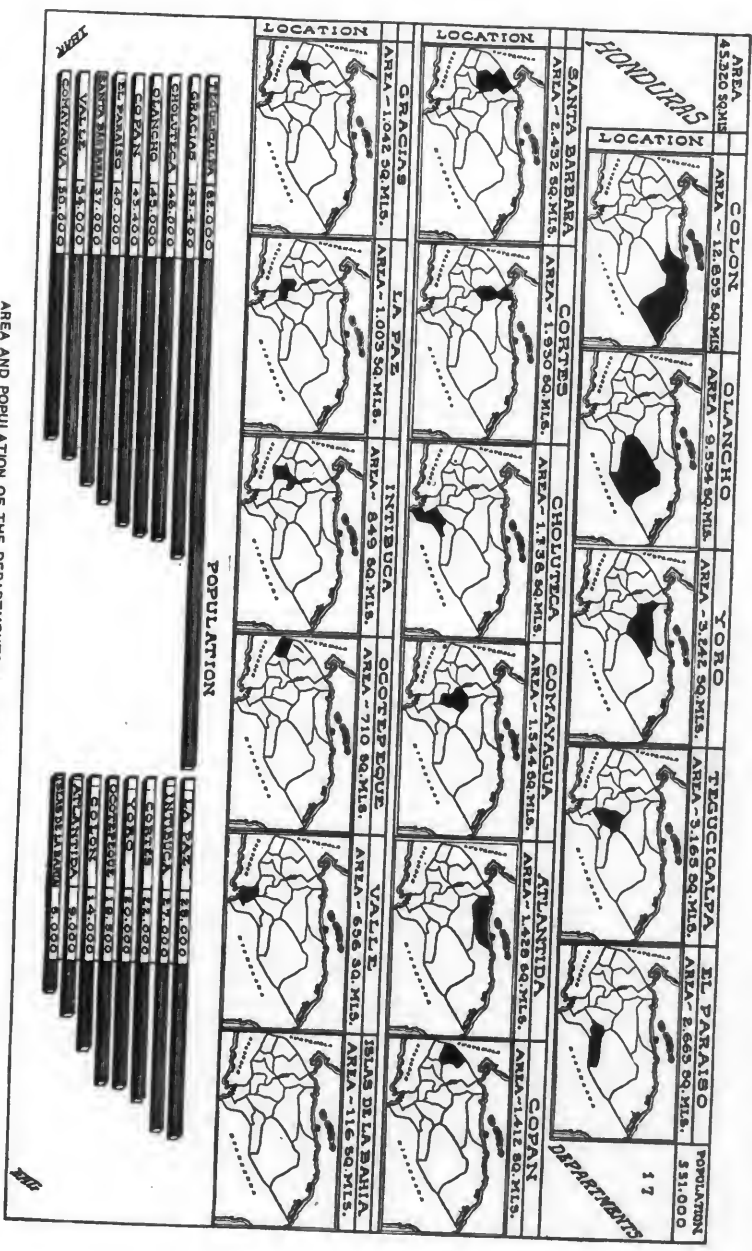
The Government of Honduras on July 30 approved the treaty of arbitration negotiated with Brazil by the representatives of the two countries in April, 1909. Publication of the terms of the treaty is made in "*La Gaceta*" for August 19, 1909.

MINING PROPERTIES IN THE REPUBLIC.

In a review of recent date, issued in Honduras, it is stated that 700 mines have been denounced in the Republic. Among the best known properties are the following:

Tegucigalpa: 5 gold; 60 gold and silver; 224 silver; 3 silver and lead; 3 copper; 2 china clay; 1 transparent quartz; 1 pit coal; 1 chalk; and 1 sulphur.

El Paraiso: 20 gold; 14 silver; 2 gold, silver, and copper.



AREA AND POPULATION OF THE DEPARTMENTS OF THE REPUBLIC OF HONDURAS.

Comayagua: 55 gold; 10 gold and silver; 20 gold, silver, and copper; 3 gold and copper; 1 gold, silver, and iron.

Valle: 5 gold; 70 gold and silver; and 18 silver.

La Paz: 1 gold; 3 gold and silver; 2 silver and lead; and 5 silver.

Gracias: 1 gold and silver; 2 silver; 4 opal and saltpeter; and 1 of white marble.

Copan: 9 gold; 30 silver; 1 copper; 1 aluminum; 1 chalk; 1 marble; 1 copper and gold; and 1 opal.

Santa Barbara: 7 gold; 1 copper; 1 iron; 2 aluminum; 1 chalk; 1 coal; 1 marble; 1 opal; and 1 silver.

Olancho: 30 gold and silver; 4 silver; 16 gold and copper; and 42 gold.

Cortes: 7 gold; 1 hard coal; 1 marble; and numerous placer mines.

Yoro: 3 gold; 7 gold and silver; 5 silver; 1 pit coal; 1 copper; 1 china clay; 1 antimony and iron; and 1 transparent quartz.

Colon: 2 gold and silver; 3 silver; 1 lead and zinc; 1 nickel; 1 iron; and 1 lead.

Choluteca: 48 gold and silver; 2 chalk; 2 copper; and 1 asphaltum.

The silver mines are the most numerous and productive, and the copper mines of Guanacaste at Olancho yield over 80 per cent pure copper, while the iron of Agalteca is abundant and of good quality.



MESSAGE OF THE PRESIDENT.

At the opening of the National Congress on September 16, President DIAZ, in his semiannual message, outlined the status of the Mexican Republic both at home and abroad and gave the usual résumé of affairs during the preceding six months.

The conventions negotiated at the Second Peace Conference have been ratified, and the Government, on September 6, subscribed to the international agreement concluded in Madrid in 1891 with regard to the registration of trade-marks. The conventions on public hygiene, signed at Paris in 1903 and at Rome in 1907, have also received the formal adherence of Mexico.

Immigration statistics show that during the six months January to June, 1909, the number of persons entering the Republic was 24,300. Public health reports are satisfactory, and a sanitary station has been equipped at the port of Salina Cruz, at which point the bulk of Asiatic immigrants enter the country.

Improvements at the capital are progressing steadily, 72,000 square meters of asphalt pavement having been laid down, streets widened, and other measures taken in the interests of the inhabitants of the city.

The heavy losses of life and property occasioned by earthquake and floods have been met by Government aid, and in response to the necessities of the times relief has poured into the stricken sections from all parts of the country.

The compilation of laws undertaken by the Department of Justice has been brought up to date and the work of revising the penal code is nearly completed.

Transactions entered in the public registry of the capital from January to June, 1909, aggregated ₪971,218,938, exceeding by over ₪300,000,000 similar entries in the corresponding period of 1908.

Scholastic reforms have been introduced and new schools established, prizes offered for technical research, and archæological investigations continued with interesting results. Mexico was represented at the International Congress of Musical History, which was held at Vienna in May, 1909; at the Fourth Latin-American Medical Congress of Rio de Janeiro in August, 1909; the Medical Congress of Budapest during the same month; the leprosy congress held in Norway in September, and the congress at Rome for the discussion of labor accidents, held in May. A delegate of the Department of Public Instruction and the National Medical Institute was present, in July, at the celebration of the three hundred and fiftieth anniversary of the founding of the University of Geneva.

In regard to internal development, President DIAZ stated that during the period between January 1 and June 30, 1909, the Department of Fomento issued 715 title deeds for lands transformed from national into private property, yielding receipts to the Treasury in the amount of ₪117,087.

The geographical exploration commission continued surveys and completed maps of many sections of the Republic. The Nazas River region is at present being studied with a view to determining its cultivable areas as effected by the development of irrigation problems. Measures are being perfected for the connection of the Mexican Geodetic Survey with that of the United States, and for the establishment of such stations as are required for the completion of the meteorological service.

Deeds to mining properties during the period under review were issued to the number of 2,072. The figures for the fiscal year 1908-9 as compared with those of the preceding twelve months show a decrease of 36 per cent, due in part to the financial crisis and the low price of metals.

Ninety-six applications have been presented looking to the utilization for various purposes of 500,000 liters of water per second from bodies of water subject to Federal jurisdiction. Concessions have been granted for the use of water for irrigation, motive power, domestic and industrial purposes and nineteen title deeds have been issued authenticating new rights or confirming old ones. Special subventions have been granted for the irrigation and colonization of 130,000 hectares of land situated in the States of Sinaloa, Chihuahua, and Tamaulipas; agricultural and dairy industries have been fostered and forestry preservation has been provided for through the organization of a technical staff and practical schools.

In the half year under consideration 603 patents of invention were granted and 429 trade marks registered. Commercial names and announcements to the number of 68 were also registered.

At Tampico, Veracruz, Puerto Mexico, and Salina Cruz structural and sanitary works were carried on, canals and waterways were improved, and in various sections roads extended.

The total extent of railways in the Republic is 24,161 kilometers (15,723 miles), federal lines aggregating 19,321 kilometers and those under jurisdiction of States 4,840 kilometers. Between January and June, 1909, railways under federal jurisdiction increased by 250 kilometers. The chief contributions to this increase were made by the Cananea, Yaqui River and Pacific's line from Alamos to Guadalajara, which has been completed between Navajoa and Culiacan and Mazatlan; the Inter-California Railway; and the line between Chalco and Rio Frio, the two last-named roads having been completed.

Post-offices on July 1, 1909, numbered 2,964, and during the year the amount of correspondence handled was represented by 184,000,000 pieces. Interior postal money orders were issued during the twelve months to the amount of ₱50,110,000, of which ₱25,210,000 were credited to the last half of the year. Postal money orders abroad were drawn up between January and June, 1909, in the sum of ₱2,287,000.

Owing to a modification in the equivalent of Mexican currency, the rates of postage on parcels sent from Mexico to Great Britain and to other countries through the intermediary of the British service were doubled. For this purpose a supplementary convention was entered into. The system of advice of payment was introduced in the postal money-order service with Germany, Canada, France, Great Britain, and Salvador, and on August 1 a convention went into effect establishing a money-order service for a maximum amount of ₱200 per order between Mexico and Austria, including the Austrian post-offices in the Levant.

A parcels-post convention with Canada was concluded, to go into operation on October 1, and a modification of the postal money-order service between Mexico and the United States was entered into.

Additions to Federal telegraph lines were made between January and June to the extent of 3,383 kilometers (2,114 miles), making the present mileage over 42,750 miles. Wireless stations were established at Payo Obispo and Xcalac, in the Quintana Roo Territory, bringing the number of such stations in the Republic up to six. The improvement in receipts from the telegraph service during the half year are noted as compared with the preceding six months.

Total revenues for the fiscal year 1908-9 sufficed to meet all budget expenses, the economies exercised in expenditures occasioned by business conditions having been made without detriment to the public service.

While both import and export duties declined as compared with the preceding fiscal year, in the case of the latter the diminution is more apparent than real, being less than the amount formerly obtained from export duties on henequen and dyewoods, on which export duties were not collected during 1908-9.

The indications which these returns afford in regard to the foreign commerce of the country are borne out by the statistical returns of imports and exports. While the imports show a falling off of over ₱65,000,000, the export decline was but ₱11,000,000. It must also be noted that during the year 1908-9 no specie was exported, whereas during the previous year the shipments of specie abroad amounted to nearly ₱16,000,000, so that, eliminating this item, Mexican exports of merchandise were in excess of those reported for 1907-8.

The scarcity of wheat in the country has occasioned the extension of lowered import duties.

Many improvements have been made in the military and naval equipment of the Republic. The British-built *General Guerrero*, a gunboat of 1,800 tons displacement, has been placed upon the Pacific coast and modern guns mounted on the training corvette *Zaragoza*. The smokeless-powder factory has been thoroughly equipped with new and adequate machinery, a new rolling plant added to the national gun foundry, and the regulation armament of the Mexican Army been augmented.

In concluding his message, President DIAZ sums up the internal affairs of the Republic in the following terms:

In the foregoing review you will have observed that nothing has occurred in the administration of public affairs of a nature to impair the confidence of the Executive in the future of the Republic, seeing that both in our foreign relations and in the vital

matter of our finances, notwithstanding transient difficulties, as well as in other departments, we may note all the evidences of that prosperity and progress which for years past have been characteristic features of our situation. Happily the Government has behind it the force of public opinion, which upholds it in its efforts to stimulate the country's progressive development and to maintain its credit abroad at the high standard to which it is entitled, both by the excellent sense of its people and the exalted wisdom and patriotic sentiments of their representatives.

THE MEAT-PACKING INDUSTRY.

In September, 1909, as a result of the development of the packing industry in the Republic, the shipment of Mexican meat products was begun via Veracruz to London. The press of the country places much stress upon this fact, and in Great Britain it is stated that a new source of meat supply for the kingdom has been opened.

The factor in this important feature of industrial progress, aside from the resources of the country, is the Mexican National Packing Company, concerning whose operations the Consul-General of the United States at Mexico, Mr. ARNOLD SHANKLIN, has recently furnished a valuable report to the International Bureau of the American Republics.

Mr. Shanklin states that the company is incorporated under the laws of the State of New Jersey, having a paid-up capital of \$22,500,000. The assets of the company, as certified to on June 30, 1909, are \$38,473,000. This company was organized and financed by and through the efforts of a citizen of the United States who first went to the Republic of Mexico and studied conditions from one end to the other. He then procured from the Mexican Government a concession, which, with extensions thereof, exists up to and through the year 1926. During that term of years all of the cattle, sheep, goats, and hogs slaughtered in the City of Mexico must be slaughtered in this packing company's *rastro* or slaughtering plant. In the past, the Mexican Government has collected an annual slaughter tax in the City of Mexico amounting to more than \$560,000 (1,120,000 pesos Mexican currency), but it has agreed that for the full term of the company's concession a payment equal to one-half that amount shall be made.

The concession grants the exclusive privilege of operating cold-storage plants in the Federal District and throughout the Republic in so far as such are operated under the Federal control. The concession also carries with it the right to bring into the Republic, free of duty, all the tin, wire, and other material, with the necessary machinery needed for the purpose of the manufacture of tin cans and packing cases for tinning and caring for its products for export trade. The company has already, at its Uruapam plant, a thoroughly modern tinning plant capable of tinning 700 beeves weekly.

The slaughterhouse in Mexico City alone has an annual capacity of 220,000 beeves, 200,000 hogs, and 250,000 sheep. The company has also installed in Mexico City many retail shops where carefully-handled, clean, wholesome, refrigerated meat is sold at a reasonable price.

The company owns its own refrigerator cars and transports its meats. Under this company's system, from the time the animals are killed until delivered they are in continuous refrigeration at uniform and low temperature, thus insuring the public against the danger of improperly prepared and unrefrigerated meats.

The company's concession carries with it the privilege and obligation to supply the army, schools, academies, etc., with meat, supplying same at a figure equal to 10 per cent under the wholesale price at which it sells to the general public.

The latest statistics issued by the Department of Fomento show that there are consumed in Mexico annually 958,058 cattle, 889,130 hogs, and 1,554,245 sheep and goats, and that there are exported annually to the United States 150,000 cattle. These figures are on the basis of four years ago, since which there has unquestionably been an increase. The company will soon have in operation a number of cold-storage ships—enough to send forward to England a shipment of 2,000 beeves every ten days.

COLONIZATION CONTRACT IN DURANGO.

A colonization contract made between the Mexican Government and Señor SAMUEL GARCÍA CUÉLLAR, publication of which is made in the "*Diario Oficial*" for September 15, 1909, covers the title to 100,000 hectares of national lands in the State of Durango, for which three annual payments are to be made.

The concessionary obligates himself to establish colonies on the territory in question, placing families of at least one man, one woman, and a child on every 200 hectares. Colonization shall be made of Mexican or European families, the nationalities of the latter to be the subject of approval on the part of the Government. Five hectares are to be allotted to each family, and necessary sanitation is to be effected of the tracts occupied. The families are to guarantee a three-years' residence on the properties, and during ten years the colonies are to be exempt from military service, from the payment of taxes other than the municipal and stamp taxes, free entry for necessary implements and animals, shipment of the fruits of the soil without payment of duties, and certain other specified privileges.

NICARAGUA

TELEGRAPH AND TELEPHONE SERVICE.

According to information furnished by the Director-General of Statistics to the United States Consul at Managua, the total telegraph-wire mileage of Nicaragua is 3,637 miles and the total number of offices, 130; telephone-wire mileage, 805 miles; and the total number of telephone stations, 29.

TERCENTENARY EXPOSITION AT LEON.

In honor of the three hundredth anniversary of the founding of Leon, an exposition is to be held in that city during January, 1910, the enterprise to be the first of its kind in the Republic.

The Government and people are showing much interest in the event and prizes are to be adjudged for the best exhibits in the following sections:

(1) Mechanical industries, which comprise: Clothing, ceramics, shoes, tanneries, printing, binding, saddlery and harness, foundry, hardware, carpentry, cabinetwork, textiles, etc. (2) Agriculture and its products. (3) Chemical industries in general: Sugars, rum, wines, oils, varnishes, etc. (4) Mining and its products. (5) Fine arts and its adjuncts: Painting, sculpture, architecture, photography, engraving, gold and silver work, music, etc. (6) Woman's arts: Embroidery, hand weaving, artificial flowers, etc. (7) Live-stock industry: Horses, swine, poultry, etc. (8) Forestry: Specimens of wood in crude state, sawed and polished, rosin, specimens of rubber, vegetable wax, fibers, vines, etc. (9) Pedagogy and educational apparatus. (10) Retrospective arts: Idols, vases, urns, arms, etc.

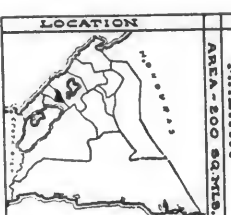
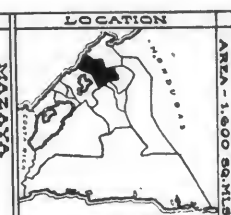
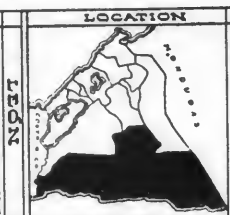

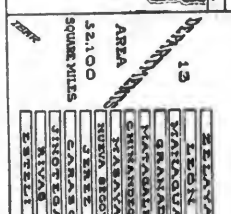
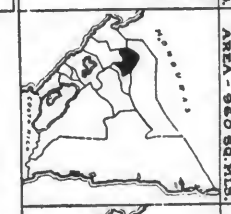
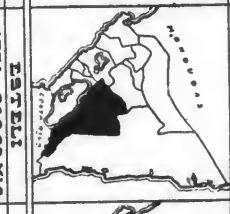
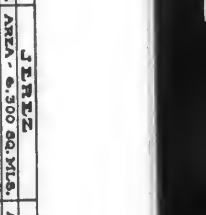
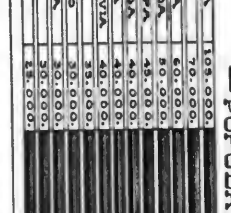
Literary and musical contests are to be held and prizes awarded.

PANAMA

FOREIGN COMMERCE, FIRST QUARTER, 1909.

This Statistical Bureau of the Panama Government (*Dirección General de Estadística*) has issued the figures of the foreign commerce of the Republic during the first three months of 1909, showing imports to the value of 1,966,289.57 *balboas* and exports worth 328,823.56 *balboas*, the *balboa* being equal in value to the gold dollar of the United States.

NICARAGUA

LOCATION	LOCATION	LOCATION	LOCATION	LOCATION	LOCATION	LOCATION	LOCATION																															
 ZELENYA AREA - 200 SQ. MILES.	 JEREZ AREA - 2,000 SQ. MILES.	 NUEVA SECOTA AREA - 2,800 SQ. MILES.	 MANAGUA* AREA - 2,100 SQ. MILES.	 CHINANDEGA AREA - 2,100 SQ. MILES.	 LEON AREA - 1,600 SQ. MILES.	 ESTELI AREA - 960 SQ. MILES.	 RIVAS AREA - 870 SQ. MILES.	 JINOTEGA AREA - 750 SQ. MILES.	 GRANADA AREA - 500 SQ. MILES.	 CARAZO AREA - 520 SQ. MILES.																												
— POPULATION —																																						
<table border="1"> <thead> <tr> <th>AREA</th> <th>POPULATION</th> </tr> </thead> <tbody> <tr> <td>ZELENYA</td> <td>103,000</td> </tr> <tr> <td>LEON</td> <td>40,000</td> </tr> <tr> <td>MANAGUA</td> <td>40,000</td> </tr> <tr> <td>NUEVA SECOTA</td> <td>50,000</td> </tr> <tr> <td>CHINANDEGA</td> <td>45,000</td> </tr> <tr> <td>JINOTEGA</td> <td>40,000</td> </tr> <tr> <td>RIVAS</td> <td>40,000</td> </tr> <tr> <td>ESTELI</td> <td>40,000</td> </tr> <tr> <td>JEREZ</td> <td>30,000</td> </tr> <tr> <td>CARAZO</td> <td>30,000</td> </tr> <tr> <td>GRANADA</td> <td>30,000</td> </tr> <tr> <td>MANAGUA</td> <td>30,000</td> </tr> <tr> <td>ZELENYA</td> <td>20,000</td> </tr> </tbody> </table>											AREA	POPULATION	ZELENYA	103,000	LEON	40,000	MANAGUA	40,000	NUEVA SECOTA	50,000	CHINANDEGA	45,000	JINOTEGA	40,000	RIVAS	40,000	ESTELI	40,000	JEREZ	30,000	CARAZO	30,000	GRANADA	30,000	MANAGUA	30,000	ZELENYA	20,000
AREA	POPULATION																																					
ZELENYA	103,000																																					
LEON	40,000																																					
MANAGUA	40,000																																					
NUEVA SECOTA	50,000																																					
CHINANDEGA	45,000																																					
JINOTEGA	40,000																																					
RIVAS	40,000																																					
ESTELI	40,000																																					
JEREZ	30,000																																					
CARAZO	30,000																																					
GRANADA	30,000																																					
MANAGUA	30,000																																					
ZELENYA	20,000																																					
<p>* NOTE: AREA OF LAKE NICARAGUA AND THE "COMARCAS" OF SAN JUAN DEL NORTE AND CABO GRANDE ARE NOT INCLUDED IN THE AREA OF ANY DEPARTMENT.</p> <p>* NOTE: IN THE DEPARTMENT OF ZELENYA ARE INCLUDED THE DISTRICTS OF RIO GRANDE, PRINCEADOKA, SIQUILA AND THE "COMARCAS" OF SAN JUAN DEL NORTE AND CABO GRANDE ARE NOT INCLUDED IN THE AREA OF ANY DEPARTMENT.</p>																																						

AREA AND POPULATION OF THE DEPARTMENTS OF THE REPUBLIC OF NICARAGUA.

During the corresponding quarter of 1908 imports amounted in value to \$1,947,625.81; a gain for the period in 1909 of \$18,663.76 is indicated, whereas in exports a decline of \$116,739.76 is reported.

The United States furnished the bulk of imports, or \$1,205,178.36, the figures showing an advance of \$138,876.09 over the same period of the preceding year, the next ranking countries being: Great Britain, \$303,175.32; Germany, \$212,672.92; France, \$77,960.30; and Italy, \$64,273.01. Italy and Germany are credited with increased quotas and Great Britain and France with decreased valuations.

As a receiver of Panama products the United States takes first place with \$271,947.40, though a falling off of \$152,546.48 is indicated as compared with the first quarter of 1908. Great Britain ranks second with \$41,469.16, representing a gain of \$36,158.66, followed by Germany, \$11,300, and France, \$2,300.

Vegetable products to the value of \$511,797.75 take first place on the import list, followed by animal products, \$363,244.65; textiles, \$305,124.03; minerals, \$281,949.26, and wines, liquors, etc., \$162,465.83.

Vegetable products to the amount of \$282,977.10 constitute the greater proportion of exports, fresh fruits (mainly bananas) figuring for \$175,438.50, representing 721,760 bunches.



THE QUEBRACHO INDUSTRY.

Two species of quebracho are to be found growing in Uruguay and the Chaco country of Paraguay and northern Argentine Republic, the red (*Aspidosperma quebracho*) being the one containing tannin used in the manufacture of the extract so valuable in the tanning of hides. In Paraguay and the Argentine Republic the wood is a large item of national wealth, the land bearing the trees selling from \$3,000 upward per square league, and during the year 1908 Paraguay manufactured 15,000 tons (estimated) of extract, valued at \$1,275,000.

The exports of the Paraguayan extract shipped through Montevideo to the United States in 1908 were valued at \$13,990.

According to a report on the subject prepared by the United States Consul in Montevideo, the industry had its origin in France, where a consignment of logs was sent from Paraguay in 1874. The first factory in South America for the manufacture of the extract was erected at Puerto Casado, Paraguay, in 1889, followed a few

years later by four others, to support which thousands of leagues of quebracho land in the Paraguay Chaco were bought. At a later date Argentine companies whose combined capital is over \$10,000,000 were formed. One company employs in its numerous factories, workshops, and railways about 30,000 workmen with their families, and devotes a portion of its land to cattle raising.

The extract of quebracho is prepared by disintegrating the logs in a manner similar to that employed in making wood paper pulp, then macerating and cooking the product with certain chemicals. The vacuum process is also used in some factories. All utensils coming in contact with the extract must be made of copper. The product is then dried in bags, each containing 50 kilograms (110 pounds) of the extract, 24 per cent of which is tannin. A plant with a daily capacity of 15 tons of dry extract costs about \$240,000. The price of quebracho extract f. o. b. Montevideo or Buenos Aires varies from \$80 to \$85 per ton.

The method of obtaining the logs is similar to that used in the lumber regions of the United States, a large number of Indians being employed. The logs, when ready for market, are 16 to 19 feet long, 12 to 15 inches in diameter, and weigh 1,325 to 1,550 pounds each, being so heavy as to not float in water. The price per ton ranges from \$14 f. o. b. Montevideo or Buenos Aires, the only ports of shipment.

ARBITRATION CONVENTION WITH THE UNITED STATES.

On July 30, 1909, the Government of Paraguay formally approved the arbitration convention signed in Asuncion on March 13 by the Minister of Foreign Relations of the Republic and the Minister from the United States.

ESTABLISHMENT OF A MORTGAGE BANK.

By a presidential decree of August 6, 1909, Mr. PAUL BENETON is authorized to establish a mortgage bank in the capital of Paraguay with a capital of \$2,000,000. Operations may be begun when one-fourth of the capital has been subscribed, and, according to the charter, shall continue for fifty years, or at the discretion of the Executive.

EXTRACTION OF THE OIL OF PETIT-GRAIN.

Oil of petit-grain, obtained by distillation from the leaves of a certain species of bitter orange grown in Paraguay, forms the basis of many different perfumes, and its use at the present time is so extended that it largely takes the place of neroli extract, made from orange flowers. The preparation of oil of petit-grain for trade purposes constitutes a lucrative industry in Paraguay. The price in Asuncion ranges from \$6 to \$7 a kilogram, and exports show a constantly

increasing ratio, as is shown by the following figures: 1905, 7,078 kilograms; 1907, 10,872 kilograms; 1908, 30,275 kilograms.

The designation petit-grain, under which the essence is commonly known in industry and commerce, is derived from the primitive processes of extraction from scarcely formed green fruit when no larger than a chestnut or beechnut. The product now extracted from the leaves is identical with that obtained from the small fruit, and through force of habit the old name has been preserved.

In Paraguay the Jesuits are credited with having been the first to exploit petit-grain, but the exact data of the inception of this industry is unknown. In 1873 the industry was modified through the efforts of a French botanist, Mr. BALANZA, who visited Paraguay to study the flora of the country and who then examined the properties of the oranges. According to Mr. E. DE BOURGADE DE LA DARLYE, in his book "Paraguay" (London, 1892), Mr. BALANZA was the first to apply the present process of distillation in the countries of the FRANCIA and LOPEZ.

As described by Dr. DARIO FREIRE, whose valued paper published in the "*Messenger de São Paulo*," of Brazil, forms the source of the present information on the subject, the installation of these distilleries is most modest. A small stream running between the orange plantations, a cabin covered with palm leaves and a furnace, in which the wood burned is picked up in a nearby forest, are all that is necessary to begin work. The apparatus in the cabin is as simple as the accessories which surround it; a generating apparatus, whose pressure does not exceed one atmosphere, sends the vapor to the bottom of a large reservoir or bowl filled with leaves. At the top there is an opening from which extends a long tube which receives and conducts the saturated vapor through the spiral tube of a refrigerating apparatus and from which the condensed essence passes into a florentine vase which acts as a receiver and separates the water from the essence.

The output is, according to the capacity of the alembic, from 3 to 4 liters a day. The product is placed for exportation in tin boxes holding 2 kilograms. These tin boxes are made especially for this purpose and have an almost imperceptible opening at the top, which is sealed as soon as they are filled. Nothing could be more primitive and less expensive, yet, however, nothing could be more practical.

The Balanza process yields a kilogram of essence to 300 leaves, and improved machinery has failed to produce a larger quantity or a better quality. The work attached to it is inconsiderable. As soon as the apparatus has been charged for thirty-six hours it is only necessary to see to the keeping up of the fire, which takes one person about three hours a day. A small distillery of the Balanza system

produces on an average 50 kilograms of essence of petit-grain a month and on gross receipts of \$144 a net gain of \$120 is made.

There are numerous small distilleries scattered over Paraguay, the principal ones being situated as follows: About 20 at Yaguaron, 4 at Ita, 3 at San Jose de la Cordillera, 1 at Itacuruby, and 2 at Nemby, producing approximately from 2,600 to 3,000 kilograms a month or 36,000 kilograms a year.

The chemical composition of the finished product, essence of petit-grain, is as follows: Specific weight, 0.890-0.9000 at 15°, soluble at 20° in two volumes of alcohol at 80° Baumé. The essence is composed of linotol, limonen, tesquiterpene, geraniol, and acetate of geranyle. The commercial value of petit-grain depends upon the quantity of ether it contains; the proportion in general is from 49.38-51.7-51.7 per cent. Rotative power of the essence, 1-100 millimeters + 224.

THE CATTLE INDUSTRY.

Consul EDWARD J. NORTON, writing from Asuncion in relation to the cattle industry in Paraguay, says that fully 40 per cent of Paraguay's exports consist of products of the ranch. The figures for 1908 were: Jerked beef, 2,140,391 pounds; tallow, 471,749 pounds; hides (dry), 79,921; hides (salted), 177,872. The export duty on hides ranges from 63 to 68 cents each. The exportation of live animals is limited: The annual consumption of beef cattle throughout the Republic is estimated at 300,000. Beef is very cheap, and throughout the rural districts prices range from 2½ to 3½ cents per pound, while in the Asuncion markets it ranges from 3½ to 6 cents per pound. The meat is crudely cut, and between the range of prices there is frequently little to choose as regards quality.

The prices paid for stock delivered at the municipal abattoir in 1907 were: Steers, \$11.50 to \$14 American gold; cows, \$8.50 to \$10.50; hogs, \$10.50 to \$11.50; sheep, 70 cents to \$1.50; and calves, \$1.50 to \$3. There are two "saladeros," or beef-curing establishments, in Paraguay, both located on the river, north of Asuncion. Each of these plants kills, from June to October, about 18,000 head of cattle, the product being the jerked beef which figures largely in Paraguayan exports. The establishment of meat-freezing or beef-extract plants in Paraguay is the one thing required for the development of the grazing industry, and sooner or later capital will come to the country for this purpose.

PERU

CUSTOMS TREATMENT IN THE UNITED STATES.

The Consul-General of Peru in New York, in reporting to his Government concerning the effect of the new United States tariff upon goods of Peruvian origin, states that, among others, the following articles are allowed free entry:

Cotton, raw; coffee, copper bars and ores, coca leaves, hides, rubber, goatskins, cascarilla, bismuth, bones, cochineal, all kinds of unmanufactured drugs; fine furs, unmanufactured; gold, silver, nickel, and other minerals, and petroleum.

Sugar above No. 16 Dutch standard pays a duty of 95 cents per 100 pounds; alpaca and merino wools, 12 cents a pound; hats of Catacaos straw, 15 per cent ad valorem; tobacco, \$1.85 a pound; lead ores, reduced from $2\frac{1}{2}$ to $1\frac{1}{2}$ cents a pound.

In making his report, Consul-General HIGGINSON expresses the opinion that the market for hides and petroleum might be greatly improved under present conditions.

FOREIGN REGISTRATION OF TRADE-MARKS.

January 1, 1910, is the date fixed by the Peruvian Executive for the reception in Peruvian consulates abroad of applications for the registry of trade-marks.

This measure is prescribed in the decree of August 27, 1909, to meet the difficulties occasioned by the fact that many companies desirous of protection for their trade-marks have no representatives in Lima.

COCA CULTURE.

The cultivation of coca—*Erythroxylon coca peruanus*—the plant from which medicinal cocaine is obtained, is an important industry in certain sections of Peru, principally the Cuzco Valley. The annual yield is about 50,000 quintals and its value varies from \$300,000 to \$1,000,000, according to fluctuations of the market.

About thirteen months are required for the maturing of the plant, when the first crop of dark-green leaves is collected, the lighter green, younger shoots being left on the stem; at the end of two months another collection of properly matured leaves is made from the same plants, and a third, fourth, and fifth gathering is made as the year advances. In its normal production four crops annually are the usual yield.

The leaves are gathered one at a time by women, the average result of a day's labor being 1 arroba (25 pounds) of dried leaves

to every 5 women. Afterwards the leaves are subjected to a sun-drying process, during which they are continually tossed. Three hours of good sun are sufficient to dry the product of the daily labor of 40 women, or 8 arrobas of 25 pounds each.

A coca plantation will yield for eight years without replanting, the output increasing from year to year until the maximum is reached, when the production decreases in about the same ratio.

The natives chew the leaf of the coca continuously during their long journeys overland, and apparently with no bad results, the claim being made that it sustains their forces and acts as a strong tonic to the system during arduous marches. Medicinally applied as cocaine, it has the property of rendering the parts treated peculiarly insensible to pain.

IMPROVED BANKING FACILITIES WITH THE UNITED STATES.

In a report to his home Government the Peruvian Consul-General at New York states that for the transaction of banking business between Peru and the United States a special department has been established in the National Bank of Commerce of New York. Connections have been made with the Bank of Peru and London and with the German Bank of Lima.

Banking firms in other sections of Latin America are also granted the necessary facilities for the transaction of business which was formerly carried on through European channels.

TRADE-MARK PROTECTION.

For the adequate protection of the proprietary rights in trade-marks registered in Peru the President of the Republic, on September 10, 1909, formally decreed that:

On the last day of each month the Division of Industry of the Department of Fomento shall issue a statement covering such trade-marks as have become void through the expiration of the ten-year guaranty granted by Peruvian law. Said trade-marks shall not be renewed to other than the previous owner in less than three months from the publication of the statement referred to, unless so requested by the proprietor.

Each mark requires a separate registration, but slight modifications of registered marks may be permitted providing publication of the same, with modifications, be made for five consecutive days in "*El Peruano*."

If two requests for registration of the same mark are received at the same time, preference is to be given to the applicant who had previously first made use of it; in case it had not been previously applied, the native owner shall have preference; if both applicants are native

or foreign, preference shall be given to the one who first established the industry.

For the presentation of a claim before the Ministry of Fomento in regard to the falsification or imitation of a trade-mark, it is not necessary that it be made by the manufacturer himself. Any manufacturer or consumer who considers himself injured by the falsification or imitation is empowered to denounce and prosecute.

THE HIDE AND LEATHER INDUSTRY.

Mr. ARTHUR B. BUTMAN, a special agent of the United States Department of Commerce and Labor, has been investigating the shoe and leather trade in Latin America.

Regarding hides and leather in Peru, he states that the hide industry is one of growing importance. Exportations are considerable, while the resources warrant a much further development of the industry. The cattle come principally from the ports of Chala and Pisco, and from other ports in much smaller proportions. The more important breeding grounds are in the Provinces of Ayacucho, Arequipa, and Apurimac, and in the more distant Sierra. Hides from animals slaughtered in Lima constituting the largest portion of the entire production of the country, are seldom exported, being mainly used in the local tanneries.

The central market for goatskins is Piura, in northern Peru. Goat and kid skins of Piura are in great demand and considered especially valuable, owing to their unusually fine texture, flexibility, extreme softness, and adaptability for handling. These skins are sought for by glove and fine leather makers.

Hides from the arid regions of the Sierra are sun dried, and so exported. Those from the coast regions, which form the major portion of the export, are salted. Cattle hides and goatskins constitute the volume of hide and skin exports, with a small quantity of sheepskins, the latter being practically all consumed at home. Piuran goatskins are exported from the port of Paita to the United States, which, according to the Department of Fomento, takes the entire exports.

Europe furnishes the principal market for hides, the larger volume of export going to Havre, France, whence the market conditions are cabled to hide exporters in Peru. There are also shipments to Hamburg and some small lots to Liverpool. About 80 per cent of the hide exports are taken by France and Germany. It is stated that better prices can be obtained for Peruvian hides in Europe than in the United States.

Total exportations of hides and skins of all classes, cattle hides, sheepskins, goat and kid, vicuna and alpaca skins, were for the years 1902, 1904, 1906, respectively, as follows: 5,313,745 pounds, 6,680,029 pounds, and 8,056,862 pounds. In 1906 the valuation reached \$775,000.

There are about 20 tanneries in Peru. The industry, while not extensive, is of certain importance, and is centered in Lima. The tanneries are small, the capacity of the largest being about 700 cattle hides per month. Three have machinery equipment of more or less modern character. Sole leather is the principal output, the larger number producing only sole leather and sheepskins.

The chief tanning material used is *Lingue (Cascara de Chile)*, 4 sacks of which constitute the first and 8 the final strength for the lot of 120 hides. The process of tanning, from the time the hides are put into the tan liquor, occupies three to four months.

Cascara de Chile, as the name indicates, is a tanning bark of Chilean origin. *Tarra*, or *divi-divi*, also commonly used, is native to this country, being found chiefly in the Department of Ica, situated to the south of Lima. *Divi-divi* is much stronger than the Chilean bark, and consequently affords a more rapid process, lessening the time of tannage by one-third. Oak bark is also occasionally used. Tanning extracts have been tried by some of the tanners, but without satisfactory results to warrant their adoption. One firm employs the chrome process for skins.

The records of the Bureau of Statistics at Washington show that exportations of leather and manufactures of, from the United States to Peru for fiscal years 1903 to 1908, were as follows:

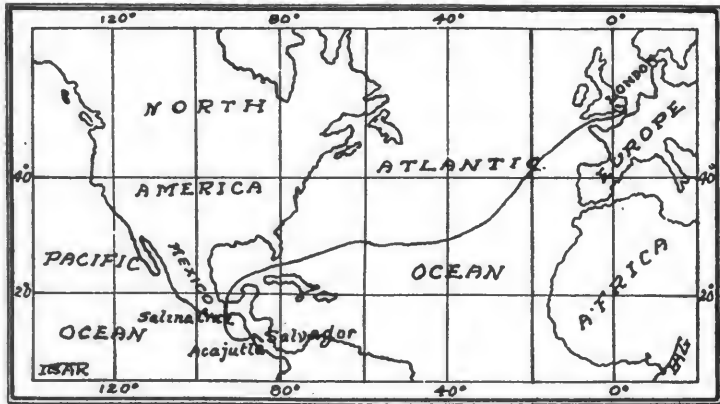
Classification.	1904.	1905.	1906.	1907.	1908.
Boots and shoes.....	\$12,880	\$28,459	\$38,393	\$59,908	\$99,185
Leather:					
Sole.....	335	259	.....	231	266
Kid glazed.....	278	1,030	813	3,187	838
Splits, buff, grain, and all other upper.....	.....	.....	.....	35,520	41,517
Patent or enameled.....	626	1,321	265	1,035	271
All other.....	214	17	1,968	884	9,592
Harness and saddles.....	2,957	4,724	6,990	8,493	9,226
All other.....	3,651	3,100	6,347	4,784	17,497
Total.....	20,950	38,910	54,776	114,042	178,392

SALVADOR

PORT MOVEMENT, FIRST HALF OF 1909.

During the first six months of 1909 entries at the ports of Acajutla, La Libertad, La Union, and El Triunfo were represented by 337 steam and 56 sailing vessels. Entries from North America were 172 steamers, and from Germany, the next ranking country, 125.

The total tonnage of the foregoing was 669,960 tons, cargo representing 17,634 tons.

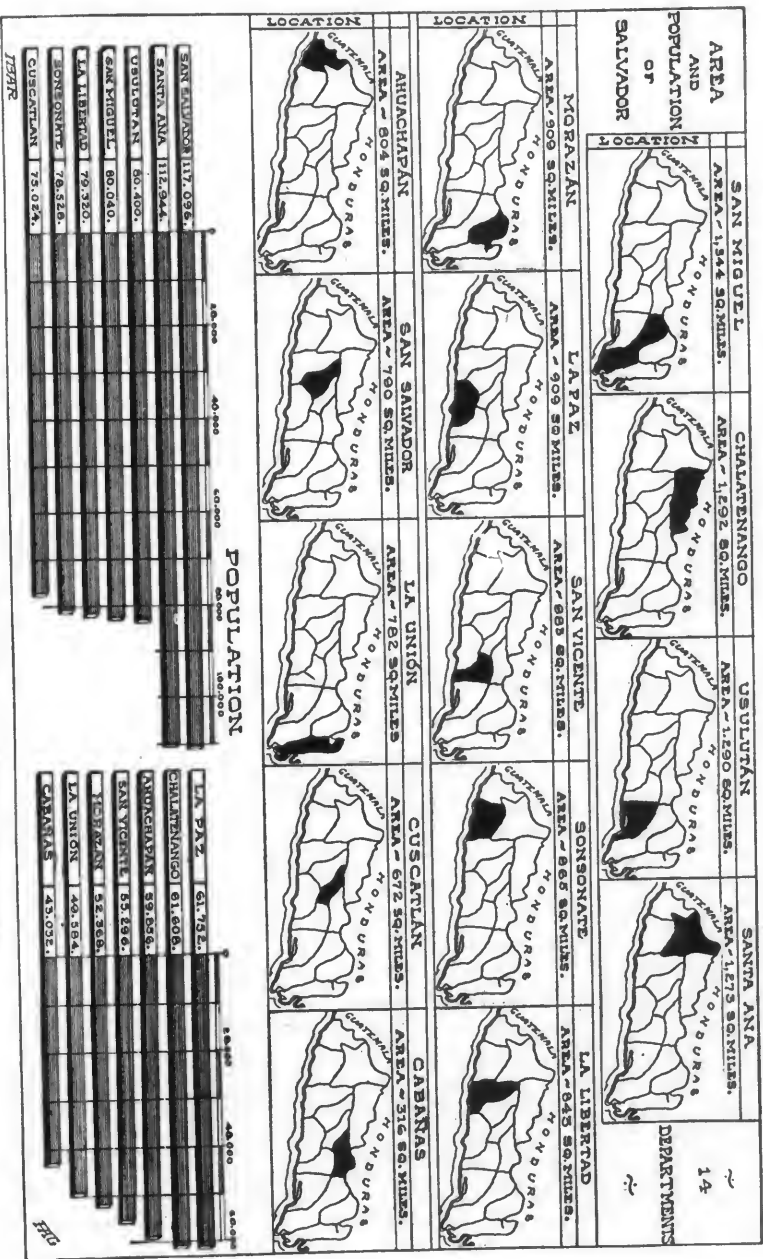


STEAMER SERVICE BETWEEN ACAJUTLA AND SALINA CRUZ.

A line of steamers is to be run between the port of Acajutla, Salvador, and Salina Cruz, Mexico, in connection with the Salvador Railway and the Tehuantepec line.

The first steamer of 13,000 tons burden, built at the Newcastle docks, will be ready for service on January 1, 1910, and is to be equipped with first-class accommodations for passengers and freight.

With connections at Salina Cruz, it is estimated that the trip to London from Salvador will be made in seventeen days. Weekly sailings are to be made from Acajutla, and the company is prepared to add as many vessels to the line as the needs of traffic may demand.



AREA AND POPULATION OF THE DEPARTMENTS OF THE REPUBLIC OF SALVADOR.

1737R

222

TREATY OF ARBITRATION WITH BRAZIL.

On September 3, 1909, a treaty of arbitration was signed by the Minister of Foreign Relations of Salvador and the Minister from Brazil in that country.

The terms of the treaty are identical with those of the pacts already signed by the representatives of Brazil and of the Republics of Honduras, Nicaragua, and Costa Rica. The same pact is being negotiated between Brazil and Guatemala.

RATIFICATION OF THE HAGUE CONVENTIONS.

The Government of Salvador formally ratified on March 5, 1909, the various conventions concluded by the representatives of participating nations at The Hague Conference of 1907.



TRADE WITH LATIN AMERICA IN 1909.

In the trade volume of the United States for the fiscal year ending June 30, 1909, represented by \$2,974,931,328, trade with Latin-American figures for \$526,052,873. While the high record of previous years was not attained, commercial transactions with Latin America show a distinct gain over 1907-8 when a total valuation of \$493,145,529 was reported.

In total imports valued at \$1,311,920,224, receipts of Latin-American merchandise reached a valuation of \$324,139,999 as compared with \$273,176,971 in the preceding year, and of exports amounting to \$1,663,011,104, shipments to Latin America were represented by \$201,912,874 against \$219,968,558.

The decline of \$18,000,000 on the side of exports is offset by a gain of over \$50,000,000 in imports, leaving a net gain to the trade of more than \$32,900,000.

A comparison of these figures with those reported for the calendar year 1908 also shows satisfactory records when the total trade between the United States and Latin America was covered by \$468,216,455, a gain of \$57,000,000 being thus indicated, while imports were represented by \$271,498,425, a gain of \$52,000,000, and exports by \$196,718,030, a gain of \$5,000,000 in the later period.

**UNITED STATES
COMMERCE
WITH
LATIN AMERICA**

COMPARISON BETWEEN THE FISCAL YEARS OF
1907-'8 AND 1908-'9

BRAZIL	98,055,229	
CUBA	80,722,193	
MEXICO	27,712,310	
ARGENTINA	22,230,182	
CHILE	11,024,088	
OTHER WEST INDIES	12,712,877	
VENEZUELA	8,318,509	
COLOMBIA	7,310,104	
PERU	6,388,544	
URUGUAY	5,670,616	
DOMINICAN REPUBLIC	3,833,849	
GUATEMALA	3,128,489	
ECUADOR	2,900,167	
COSTA RICA	2,693,888	
HONDURAS	2,409,168	
THE GUIANAS	2,180,778	
PANAMA	1,674,004	
NICARAGUA	1,006,811	
SALVADOR	821,713	
HAITI	528,847	
PARAGUAY	16,777	
BOLIVIA	138	

IMPORTS

1907-'8
1908-'9
EXPLANATION

MEXICO	46,785,222	
CUBA	43,918,266	
ARGENTINA	37,161,308	
BRAZIL	37,656,198	
PANAMA	17,527,692	
OTHER WEST INDIES	16,430,077	
CHILE	14,729,550	
PERU	10,232,666	
HAITI	10,489,268	
COLOMBIA	10,704,012	
URUGUAY	9,486,258	
THE GUIANAS	9,104,690	
DOMINICAN REPUBLIC	8,217,822	
VENEZUELA	7,989,377	
COSTA RICA	5,027,122	
ECUADOR	4,678,070	
GUATEMALA	3,432,375	
HONDURAS	3,320,713	
SALVADOR	3,284,621	
NICARAGUA	2,985,122	
BOLIVIA	2,900,182	
PARAGUAY	2,479,110	
BRAZIL	2,170,876	
VENEZUELA	2,068,811	
COSTA RICA	2,022,823	
ECUADOR	1,803,124	
GUATEMALA	1,704,104	
HONDURAS	1,720,700	
SALVADOR	1,468,623	
NICARAGUA	1,443,131	
BOLIVIA	1,320,167	
PARAGUAY	1,172,372	
BOLIVIA	71,451	
PARAGUAY	1,128,228	
PARAGUAY	22,468	
PARAGUAY	100.92	

EXPORTS

1907-'8

1908-'9

Distribution of trade values among the various countries of Latin America is reported by the United States Bureau of Statistics as follows:

	Twelve months ending June—		Twelve months ending June—	
	1908	1909	1908	1909
IMPORTS.				
Central American States:				
Costa Rica.....	\$4,405,165	\$2,695,858	\$2,696,744	\$2,307,096
Guatemala.....	2,590,107	3,148,489	1,730,700	1,706,150
Honduras.....	2,268,070	2,150,752	1,768,995	1,499,632
Nicaragua.....	1,160,832	1,004,811	1,574,879	1,355,287
Panama.....	1,409,344	1,676,994	18,232,666	16,797,520
Salvador.....	981,715	970,137	1,357,297	1,462,135
Total.....	12,675,293	11,647,041	27,361,281	25,127,836
Mexico.....	46,945,690	47,712,214	55,509,604	49,793,323
West Indies:				
British.....	12,129,350	11,410,019	12,475,383	11,715,654
Cuba.....	83,284,692	96,722,193	47,161,906	43,913,356
Danish.....	592,292	221,457	727,193	693,681
Dutch.....	361,966	249,823	706,210	635,827
French.....	60,111	49,899	1,455,701	1,411,204
Haiti.....	689,045	525,947	3,649,172	3,937,359
Dominican Republic..	4,583,661	3,653,890	2,703,276	2,579,320
Total.....	101,701,117	112,833,218	68,878,241	64,886,401
South America:				
Argentine Republic..	11,024,098	22,230,182	31,858,155	33,712,505
Bolivia.....	384	138	1,226,238	792,691
Brazil.....	74,577,864	98,053,229	19,490,077	17,527,692
Chile.....	14,777,811	13,712,373	9,194,650	5,466,286
Colombia.....	6,389,755	7,010,304	3,452,375	3,679,070
Ecuador.....	2,401,188	2,730,372	1,909,126	1,849,057
Falkland Islands.....	16,916	1,499	606	1,433
Gulana:				
British.....	230,828	791,349	1,988,385	2,009,988
Dutch.....	780,369	865,743	645,417	612,087
French.....	33,136	39,728	334,174	371,615
Paraguay.....	14,645	16,777	100,568	52,268
Peru.....	6,670,016	6,386,544	6,959,579	4,557,864
Uruguay.....	1,364,796	3,726,877	3,868,661	3,360,313
Venezuela.....	6,725,184	8,313,609	2,555,863	2,568,211
Total.....	124,998,590	163,878,724	83,583,874	76,561,680
EXPORTS.				
Central American States:				
Costa Rica.....	\$2,696,744	\$2,307,096	\$2,696,744	\$2,307,096
Guatemala.....	1,730,700	1,706,150	1,730,700	1,706,150
Honduras.....	1,768,995	1,499,632	1,768,995	1,499,632
Nicaragua.....	1,574,879	1,355,287	1,574,879	1,355,287
Panama.....	18,232,666	16,797,520	18,232,666	16,797,520
Salvador.....	1,357,297	1,462,135	1,357,297	1,462,135
Total.....	27,361,281	25,127,836	27,361,281	25,127,836
Mexico.....	55,509,604	49,793,323	55,509,604	49,793,323
West Indies:				
British.....	12,475,383	11,715,654	12,475,383	11,715,654
Cuba.....	47,161,906	43,913,356	47,161,906	43,913,356
Danish.....	727,193	693,681	727,193	693,681
Dutch.....	706,210	635,827	706,210	635,827
French.....	1,455,701	1,411,204	1,455,701	1,411,204
Haiti.....	3,649,172	3,937,359	3,649,172	3,937,359
Dominican Republic..	2,703,276	2,579,320	2,703,276	2,579,320
Total.....	68,878,241	64,886,401	68,878,241	64,886,401
South America:				
Argentine Republic..	31,858,155	33,712,505	31,858,155	33,712,505
Bolivia.....	1,226,238	792,691	1,226,238	792,691
Brazil.....	19,490,077	17,527,692	19,490,077	17,527,692
Chile.....	9,194,650	5,466,286	9,194,650	5,466,286
Colombia.....	3,452,375	3,679,070	3,452,375	3,679,070
Ecuador.....	1,909,126	1,849,057	1,909,126	1,849,057
Falkland Islands.....	606	1,433	606	1,433
Gulana:				
British.....	1,988,385	2,009,988	1,988,385	2,009,988
Dutch.....	645,417	612,087	645,417	612,087
French.....	334,174	371,615	334,174	371,615
Paraguay.....	100,568	52,268	100,568	52,268
Peru.....	6,959,579	4,557,864	6,959,579	4,557,864
Uruguay.....	3,868,661	3,360,313	3,868,661	3,360,313
Venezuela.....	2,555,863	2,568,211	2,555,863	2,568,211
Total.....	83,583,874	76,561,680	83,583,874	76,561,680

URUGUAY

PARTICIPATION IN THE BRUSSELS EXPOSITION.

The Government of Uruguay has resolved to participate actively in the Brussels Exposition, to be held in the capital of Belgium during 1910, and for that purpose has appropriated the sum of \$31,488.99.

In urging this action upon the General Assembly, President WILIMAN stated that the high estimation placed upon Uruguayan wool, wheat, and meat products in European markets justified an adequate expenditure for the proper presentation of native industrial methods before the world.

REGULATIONS FOR BAGGAGE AT MONTEVIDEO CUSTOMS.

The new regulations issued by the Montevideo custom-house authorities, in so far as they affect the general public, cover the following heads, luggage and parcels being thus defined:

Luggage.—All clothing for passengers and objects for their personal use; also clothes, furniture, and implements of immigrants, provided their quantity is not such as to indicate that they are for trade purposes; used furniture of families coming to settle in the country, said furniture to be covered by a consular certificate.

Parcels.—Small packages arriving for persons living in the country containing articles evidently intended for the private use of the person to whom they are addressed.

Luggage and parcels should be landed at the specifically appointed places and dutiable articles declared. Travelers are to be searched only when there is strong suspicion that they are concealing dutiable articles and the search is to be effected in the least vexatious manner possible.

All parcels are subject to payment of duty except those of no appreciable value, and shall be dispatched with the same formalities as luggage free of duty.

Such articles as are dutiable or concerning which there is any doubt are to be shown to the inspector, at whose valuation the duty shall be collected if it is less than \$10; otherwise they pass to the custom-house.

SPECIAL DELEGATES SENT ABROAD.

The Uruguayan Government designated the following delegates to various meetings held in other countries in the interests of science and public welfare:

To the Sixth International Congress of Hygiene, held in Budapest, August, 1909, Drs. ANGEL C. MAGGIOLO, FELIPE SOLARI, and ESTEBAN B. TOSCANO.

To the Universal Conference at The Hague for the Preservation of National Resources, Sr. VIRGILIO SAMPOGNARO, Consul of the Republic at Cherbourg.

To represent the Government on the occasion of the inauguration of the monument of the Universal Postal Union in Berne, September, 1909, the Director-General of Posts and Telegraphs, Don FRANCISCO GARCÍA Y SANTOS.

The Uruguayan Consul-General of Cuba, Sr. RAFAEL J. FOSALBA, has been directed to proceed to the United States to make a thorough investigation of the methods employed in that country in the preparation and preservation of meat products, and also to report as to the export markets for the same.

BUILDING MATERIALS IN THE REPUBLIC.

In reporting as to the timber land in Uruguay, United States Consul GODING states that the importations of lumber from the United States exceed many times the combined imports of all other countries. These imports are composed principally of white and yellow pine and spruce. Considerable quantities of walnut come from southern Europe and the United States, and some lumber is also furnished by Brazil, the Argentine Republic, and Paraguay.

During the first six months of 1909 lumber from the United States consisted of 13,659,649 feet of yellow and 4,120,154 feet of white pine.

Of native trees, the quebracho is the most valuable, but it does not exist in sufficiently large quantities to make it a national asset. The eucalyptus, which has been imported from Australia, also attains considerable growth and is utilized in various ways—for construction work, fuel, etc.

Recently the advantages offered by steel structures have received the attention of builders, and a general movement has begun toward replacing old structures with modern edifices.

In Montevideo, steel has been applied in building the Uruguay Central Railway station, and other structures are being put up wherein the old systems of bricks and stone are being replaced by steel.



VE NE ZUE LA

**APPROVAL OF THE FRENCH CABLE CONTRACT.**

By publication in the "*Diario Oficial*" of September 2 the contract entered into on the part of the Government of Venezuela and the French Cable Company in May, 1909, and supplemented on July 6, was officially promulgated.

The company is granted the exclusive cable rights in Venezuela over the line from La Guaira to Curaçao, to Santo Domingo, to Puerto Plata, to Cape Haitian, to New York.

This right is granted for a period of twenty years, with the privilege of extension for another like period and a preferential claim to a second extension of time.

The company is obligated to pay to the Government a fixed rate for every word received and transmitted over the cable; to allow a 50 per cent reduction on official and press dispatches, and to furnish to the Government certain specified statements of the business of the company at stated intervals.

Free entry is allowed for all materials and implements to be employed in the working of the cable, and exemption from all classes of taxation is afforded.

Interruption in the service save for unavoidable causes for six months in the first five years or of four in the remaining years shall occasion a rescinding of the contract, and all controversies arising regarding the operation of the same shall be settled before properly qualified tribunals of the Venezuelan Government without recourse to international claims.

COMMERCIAL TREATY WITH GERMANY.

On August 31 the treaty of amity, commerce, and navigation signed by the representatives of the Governments of Venezuela and Germany in Caracas on January 26, 1909, was officially promulgated by the President of the Republic.

The first clause of the treaty provides for most favored treatment reciprocally effective between the two nations in all transactions concerning commerce, navigation, imports, exports, transit trade, and customs privileges.

The second clause provides that ratifications shall be exchanged before September 1, 1909, and that the treaty shall go into effect ten days subsequently, to last for ten years and thereafter unless previous notification of a year is given by one of the contracting parties.

TILE FACTORY AT CARACAS.

The Venezuelan Minister of Commerce has made a ten-year contract with MIGUEL M. HERRERA, of Valencia, under which the latter agrees to establish within eighteen months one or more factories for the manufacture of porcelain and glazed ware, including floor tiles and fancy finishing tiling, and excepting ordinary earthenware, which is already being made in the country. It is stipulated that prime material found in the country, such as kaolin, etc., must be used and the greatest possible number of Venezuelans be employed.

AUTOMOBILE AND STEAMER SERVICE IN AMAZONAS.

A decree of August 13, 1909, approves in detail the terms of the contract made in April, 1908, between the Minister of the Interior of Venezuela and a citizen of that Republic for the establishment of an automobile and steamer service for the transport of freight and passengers in the Federal Territory of Amazonas. Navigation privileges are accorded on the branches of the Orinoco traversing the district and free entry through the custom-houses of the Republic is granted for the equipment necessary for the carrying out of the enterprise. Preference is to be given to citizens of the Republic in employing workmen and certain concessions are to be made by the

operating company in the matter of transport of Government officials and cargoes.

At the end of twenty years, the enterprise, with its buildings, bridges, vehicles, roads, machinery, etc., shall revert to the Government without cost.

GOVERNMENT TELEGRAPHS AND TELEPHONES.

By a law published in the "*Gaceta Oficial*" of September 3, 1909, the Government of Venezuela decrees that the establishment and administration of national telegraph lines and official telephones, whether by metallic, wireless, or other systems, are the exclusive prerogatives of the Government under the supervision of the Ministry of Fomento. Special lines for private service may be installed by railway and aerial cable companies with the approbation of the National Congress, but special telephone lines, electric-light connections, or any other enterprise necessitating metallic wires or conductors, may not be installed beyond the limits of private properties without Executive authorization.

The general public is permitted the use of public wires subject to the rules and regulations of the service.

EXPROPRIATION LAW.

By a law promulgated August 2, 1909, the Venezuelan Government abrogated the law of December 10, 1892, concerning the expropriation of properties for works of public utility.

Works of public utility are defined as those undertaken for the benefit of the Nation in general or of States, Territories, etc., whether by the Government of the Union, of States or municipalities, or by private individuals or corporations.

The formality of declaring an enterprise one of public utility is waived in cases covering the construction of railways, roads, buildings for schools, prisons, fortresses, or cemeteries; the construction or improvement of aqueducts, canals, and bridges; irrigation canals, works for the conservation of forests and water courses, and all sanitary improvements and installations. In these cases the decree of the Executive of the Nation or State is sufficient.

The destruction of private property in cases of epidemics or other public calamities is governed by special laws.

Temporary occupation of properties for the advancement of works of public utility is provided for and regulations formulated for the indemnification of the property owners.

ABOLITION OF EXPORT DUTIES.

United States Consul ISAAC A. MANNING, of La Guaira, reports under date of August 26 that the Venezuelan Minister of the Treasury

and Public Credit has sent a circular to all customs collectors requiring compliance with article No. 133 of the National Constitution, which prohibits the collection of any export duty on products of Venezuela, including cattle. The export duty on cattle was 4 bolivars (bolivar = \$0.193) per head.

BUST OF BOLIVAR IN THE INTERNATIONAL BUREAU.

The Government of Venezuela has appropriated the sum of \$3,800 for the bust of General BOLIVAR to be placed in the new building to be occupied by the International Bureau of the American Republics. The work is to be executed in marble.

NAVIGATION SERVICE.

By decree issued on September 7, 1909, the Government of Venezuela approved the contract made for the establishment of a steam-navigation service between the ports of Caño Colorado and Cristobal Colon, with connections at intermediate points. The contract is good for fifteen years, and operations must be begun within eighteen months. The service is to be carried on under the national flag, and it is agreed that in addition to the free transport of the mails the company will aid the Government in such coastwise service as may be required. Free entry is granted to materials for the construction of wharves and docks, and permission is accorded for the cutting of woods in the national forests, said timber to be used for construction purposes only.

MINING CODE.

Publication of the mining code operative in Venezuela is made in the issues of the "*Gaceta Oficial*," beginning with September 16, 1909.

THE BANK OF VENEZUELA.

During the first six months of 1909, the Bank of Venezuela, at Caracas, received \$9,557,053 and paid out \$9,296,864. The Government had a balance to its credit of \$237,980 on June 30. The net profit of the bank was \$99,419 for the six months, and the dividend paid the stockholders was 4½ per cent. Of the 600 shares of stock only 80 changed hands during the six months. The stock at present is owned by 350 persons.



