

COMMERCE, FINANCE AND COMMUNICATIONS

COMMERCIAL DEVELOPMENT—COMMERCIAL ASSOCIATIONS AND CHAMBERS OF COMMERCE—COMMERCIAL TREATIES—BANKING—FEDERAL LAND BANK—UNITED STATES CUSTOMS SERVICE—DEVELOPMENT OF THE PORT OF SAN JUAN—POSTAL SERVICE—TELEGRAPH, TELEPHONE AND CABLE SERVICE—U. S. A. NAVAL COMMUNICATION—AMATEUR RADIO.

Porto Rico's Commercial Development Since 1901

By Hayden L. Moore,

Collector of Customs. Came to Porto Rico in 1898. In the employ of the United States Government in various capacities, and since 1916 to date U. S. Collector of Customs for the District of Porto Rico, at San Juan. Bank Director, and President of the only Building and Loan Association in Porto Rico. Fruit grower and cattle raiser.

Damage Done by San Ciriaco Hurricane. The first year of the civil government in Porto Rico was 1901, and that year and the following few years were lean ones in her commercial development due to the effect on her commercial life of the San Ciriaco hurricane which did great damage and swept the vegetation from her hill sides leaving only red clay.

It will be remembered that Porto Rico came under the jurisdiction of the United States in October 1898, and that from then until April 12th 1900, she had a military government, the civil government being established on the first of May 1900.

State of Commercial Growth. Immediately following the Spanish-American War her commerce decreased for a while due to unsettled conditions, the abnormal conditions being augmented by the results of the above mentioned hurricane, the results of that cyclone remaining more or less for five years. Thus it will be seen that she did not have opportunity to demonstrate her true commercial worth until 1904. With this fact in mind the following figures can be considered intelligently.

Exports and Imports. In 1901, Porto Rico purchased from the United States goods valued at \$6,965,408 and from foreign countries \$1,952,728. That same year her sale of goods to the United States was valued at \$5,581,288 and to foreign countries \$3,002,679, this making her total commerce \$17,502,103. Four years

later her commerce totalled \$35,245,824; six years later, in 1910, it was up to \$68,595,074, and in 1920 her export and import commerce had reached a value of \$247,199,983. In 1901 the share of the United States in her world commerce was 71 per cent, in 1910, 87 per cent and in 1920, 91 per cent.

Due to world conditions at the end of the great war, her total commerce then dropped, in 1921 it being \$217,758,278 and in 1922, \$136,347,720. The share of her commerce however which fell to the United States, only dropping 1 per cent for each of those years.

Trade Balance. In 1901 the trade balance against her was \$334,169, in 1902 it was \$775,654, and since then, with one exception 1907, it has always been in her favor, reaching the high mark of \$54,422,915 in 1920, and in 1922 standing at \$136,347,720, the share of the United States in her total commerce being 92 per cent in 1921 and 90 per cent in 1922.

Value of Merchandise Shipped Into Porto Rico. Of the merchandise brought into Porto Rico in 1922 from twenty-nine different countries, and eight islands of the West Indies, and valued at \$64,175,149, the share of the United States was \$57,400,028, Canada having the next largest share, \$1,286,953, and the Dutch West Indies next with \$915,920, followed by Spain with \$774,727.

Value of Merchandise Shipped Out of Porto Rico. Of the merchandise shipped from Porto

Rico in 1922, amounting to \$72,172,571, the United States took merchandise valued at \$66,229,771. Her merchandise was sent to seventeen different countries and seven islands of the West Indies, the total shipments being, in round numbers, 2,000,000 smaller than in 1918 in which year the merchandise went to only 8 countries and 7 of the West Indies.

Sugar Exports. In 1901 her sugar exports were 68,909 short tons of which the average price per ton was \$68.43 while in 1921 her sugar exports were 409,407 short tons their average price being \$176.94.

Coffee Exports. In 1901 her coffee exports were \$12,157,240 pounds, the average price of which was 13.7 cents, while in 1922 she exported 23,402,127 pounds, for which she received an average price of 14.1 cents per pound, making the total value \$4,316,859.

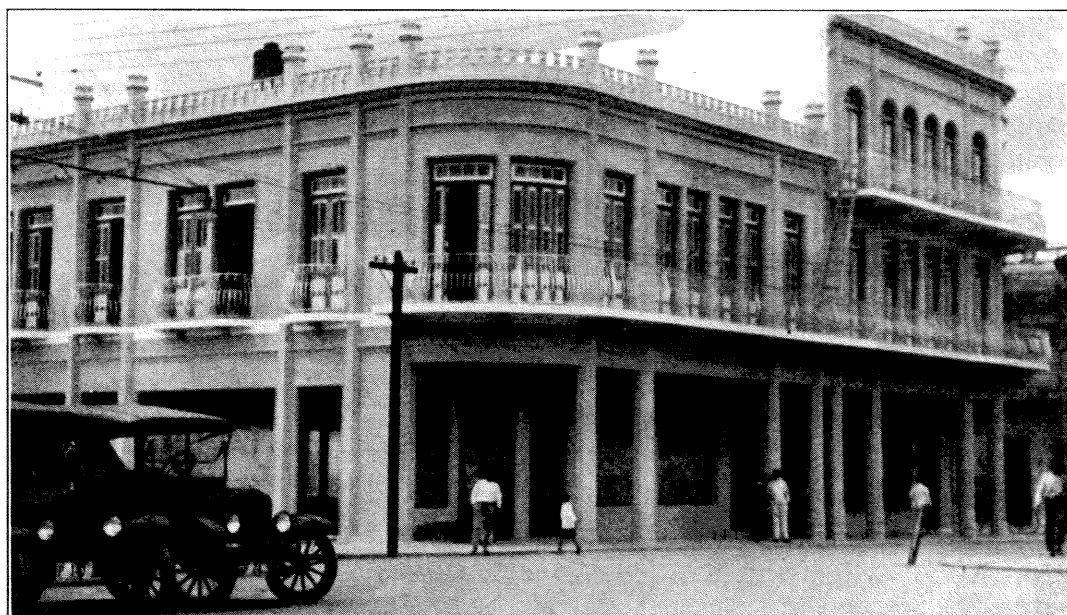
Growth of Tobacco Industry. Since 1901 the tobacco industry has seen great changes and today has reached a higher development than ever before known both in the production of the leaf and in its manufacture. The exports of same being, as follows in 1922, unmanufactured leaf to United States 17,438,679 pounds, scrap 4,931,305 pounds, cigarettes, 1396 m., cigars 140,457 m. The total value of the export to the United States being \$15,306,014

and to foreign countries \$12,262, made up of unmanufactured tobacco (leaf) 50,426 pounds, scrap 32,178 pounds, cigarettes 660,000, and cigars 47,000.

Fruit Industry. The fruit industry of Porto Rico, dates back only to the American Occupation but from 1902 to 1912 such was its development that it had grown to \$2,000,000 and in 1922 the value of Porto Rico's fruits shipped to the United States and Europe, was \$2,857,086. The Fruit Growers Association have contributed much aid to Porto Rico's fruit development, a development which promises great future growth.

Other Merchandise Shipments. Details of her merchandise shipments besides those mentioned above, shipments which figured largely to swell the total forwarded from Porto Rico in 1922, were, distilled alcohol \$40,854, coconuts, \$489,657. Hides and skins, \$84,504, straw hats and other straw articles, \$67,797, molasses and syrup \$500,669, cotton and manufactures of cotton \$3,919,465, and seeds \$10,800.

Merchandise Requirements. A word here concerning Porto Rico's trade requirements seems to be wise. Her demands for agricultural implements, brass and brass goods, cement, chemicals and drugs, coal, fertilizers, jute bags, cordage, glass and glass ware, rub-



ESTABLECIMIENTOS MERCANTILES DE MAYAGÜEZ.—NOTHING CAN SHAKE THE CONFIDENCE OF MAYAGÜEZ.

ber articles, leather and leather goods, iron and steel articles of all kinds, oils, paints, pigments and varnishes, paper and paper goods, silk, soap, beans, rice, dried peas, onions, potatoes, lumber and all kinds of wooden articles and wood goods, are all large and rapidly growing which means larger imports, and an extending market for innumerable articles of nearly every conceivable kind.

The Future Commercial Development. To

sum up, with the richest country in the world behind them and with all the inhabitants of Porto Rico industriously working in their different lines of production and trade and with the Porto Ricans, Spanish merchants and the later comers—those from Continental America—all working in union for a greater Porto Rico, her commercial development in the future is destined to make wonderful strides in the path of progress.

Commercial Associations and Chambers of Commerce

By Arturo Bravo y González,

Merchant. Executive Secretary of the Chamber of Commerce of Porto Rico and its San Juan Section. Member of the first commission sent to Washington by the Chamber of Commerce to advocate free trade for Porto Rico. Former Vice-President of "La Caja de Ahorro de Mayagüez." Ex-President of the Casino de Mayagüez.

The Royal Economic Society of Friends of the Country: Pursuant to recommendation of the Regency of the Kingdom of Spain, and bearing in mind the success of similar associations organized in Spain, The Royal Economic Society of Friends of the Country was founded in 1813 on initiative of the Intendent, Don Alejandro Ramírez.

This was the first association wherein the collective interests of the business community of Porto Rico were represented. The purpose of the association was to promote public spirit and to develop the general interests of the island. The association rendered services that contributed greatly to the development of the commerce of Porto Rico, having founded, among other institutions of learning, a class of Administrative Economy and Accounting under Don Claudio Brant, and another of navigation under direction of Don Román Baldorioty de Castro, which supplied the island with a good number of officers and pilots for its ports. The Economic Society was the organizer of the first Porto Rican Exposition. This was followed by others and in all of them the association took a very active part.

On February 28, 1814, it commenced to publish "The Financial Journal of Porto Rico," which waged continuous war in defense of free labor, and contributed greatly to the development of both agriculture and commerce, a work in which Don

José Andino cooperated actively. In spite of the fact that the association lived a long life, since it was not abolished until January 5, 1899, it lived thanks to the incessant aid of some of its protectors, for its financial resources were always insufficient to meet its obligations.

Other Financial and Administrative Institutions: The Board of Commerce and Promotion was in operation from 1839 to 1860, while on January 1, 1866, the Jurisdictional Boards of Agriculture, Industry and Commerce were organized. These were advisory boards to the government of the island and to the departmental and local authorities, in matters relative to said branches as affected the respective jurisdictions. Of the members constituting these boards, one of which functioned in each of the departments of the island, three represented agriculture, three industry and the other three commerce, their appointments being made by means of lists of names submitted to the government at Madrid.

Although these institutions were of an official nature, just as was the so-called Council of Administration established by Royal Decree of July 4, 1861, on which date the Board of Commerce and Promotion had already been abolished, it is proper to mention the Jurisdictional Boards in this sketch, for though their sphere of action comprised matters of different order, they nevertheless constituted a representation of the general

interests of the wealth of the island, commerce having therein a very direct intervention.

It has been impossible to obtain exact information, but from data secured it may be deduced that about 1880 a business association was organized in San Juan under the name of Mercantile Center of San Juan, which was presided over by Mr. José Peña Chavarri. The chief object of this association being the improvement of commerce in all its branches, by means of collective effort, and in addition, to promote the general financial development of the country. We know that this association was active for several years, and that it took up with notable interest different matters connected with the island's welfare.

On February, 1881, the by-laws of the Mercantile and Industrial Union of the City of Ponce were signed, the Union having been organized and directed, among others, by Messrs. Lucas Amadeo, Ermelindo Salazar, Román Baldorioty de Castro and Juan Mayoral. The object of the Union was to promote wealth by means of commercial and industrial progress; to bring the merchants of

Ponce closer together, and to diffuse morality as the chief factor of success in business.

One month later, and by virtue of a notarial deed signed by an important number of business-houses seeking natural protection in cases of suspension of payments and bankruptcy, the Mercantile League was born of the Mercantile Union, both associations having performed their duties during the several years of their existence.

The Grand Convention at Aibonito: Under the auspices of the aforesaid Mercantile Union of Porto Rico and Mercantile Center of San Juan, the Grand Convention of Aibonito was held August 29 and 30, 1886, at which convention the agriculture, commerce and industry of the entire country was represented by delegations. Resolutions of extreme importance to the general interests of Porto Rico were adopted, the financial condition of the island being then quite critical. The convention was presided over by Mr. Ermelindo Salazar, while Messrs. J. R. Abad and Arturo Bravo acted as secretaries.

Chambers of Commerce, Industry and Nav-



DISTRITO COMERCIAL DE PONCE.—MODERN BUSINESS ESTABLISHMENTS.

igation: As a consequence of the Royal Decree of December 19, 1885, creating the Chambers of Commerce, Industry and Navigation, one of these chambers was established in San Juan under the presidency of Mr. Pablo Ubarri, with Mr. Manuel Román as treasurer, and Mr. Rafael Pérez García as secretary. Another one was organized in Ponce with Messrs. Lorenzo Mayol, Victor Manescau and Luis R. Velázquez, as president, treasurer and secretary, respectively. These Chambers of Commerce did much towards awakening the spirit of association and were the means successfully utilized on several occasions to increase the development of trade, the progress of agriculture and the improvement of industry. For this reason it is not only the commercial group, but the country in general that should feel grateful for the benefits received from these associations. In 1898 they were dissolved on the change of sovereignty.

Retail Dealers Association: On March 1, 1891, the Porto Rico Retail Provision Dealers' Association was organized, and still exists with very satisfactory results for retailers. The object of this association is to maintain close ties between the retail dealers of the island, and to intervene in all such matters as may be related to the interests of the members, where the association can offer its cooperation.

Chamber of Commerce of Porto Rico: The needs of the commerce as the intermediary in the development of the progress of Porto Rico, required the organization of a new Chambers of Commerce adopting themselves to the new American system just established; but up to April 24, 1899, and then as the initiative of General Guy W. Henry, the reorganization of said Chambers of Commerce was not given practical form. On said date a Military Order was issued, the last paragraph of which reads as follows:

"Therefore, all persons, mercantile firms, business houses and associations engaged in business in this island, who are disposed to cooperate in carrying out the aforesaid project, are hereby required to meet in convention at the city of San Juan, in the halls of the Porto Rican Atheneum, at 9:00 a. m. of the second Monday of May, 1899, for the purpose of organizing the Chamber of Commerce of Porto Rico."

On said date, May 10, an organizing committee

was appointed and Mr. George J. Finlay designated chairman thereof. During this period of organization said committee took a very active part in several matters of great importance that came up, among them being the change of provincial for American coin; the reduction of tariff duties in Cuba on Porto Rican coffee, according to an order issued by President McKinley, and the contracting of a loan wherewith to improve the financial condition of Porto Rico.

The Chamber of Commerce of Porto Rico was formally established in December, 1899, the first Board of Directors being composed of Messrs. Andrés Crosas, President; Pedro Arsuaga and H. B. Luce, Vice-Presidents; Fidel Guillermety, Treasurer; Manuel Fernández Juncos, Secretary, and Messrs. Egozcue, Dooley, Korber, Finlay, Balasquide, Méndez, Palau, Trigo and Echegaray as members. Sections of this Chamber were constituted one year later in Ponce and Mayaguez, Messrs. Carlos Armstrong and Luis Bravo having been respectively designated presidents of said sections.

The first important measure adopted by the Chamber of Commerce of Porto Rico was the sending of a commission to Washington, composed of Messrs. Finlay, Luce, Fernández Juncos, Armstrong, J. H. Henna and Arturo Bravo, to push the reform leading to the termination of military government, and to obtain free trade between the island and the United States, or in default thereof, such tariff advantages as might be possible.

The Mayaguez and Ponce sections did very good work in benefit of their respective localities, and of the entire island also, a memorial sent by the Ponce section in 1903 to the Congress of the United States being worthy of special mention. Said memorial was written in defense of the coffee interests and was endorsed by the Mayaguez section, the Chamber of Commerce of Porto Rico, the banking institutions, the Coffee Growers Association, etc.

Messrs. J. D. Luce, Manuel Paniagua and Ramón Valdés were successive presidents of the Chamber of Commerce of Porto Rico, at different times up to 1913. In 1911, 1912 and part of 1913, and due to special circumstances then prevailing, there was an interval of inactivity by the Chamber. In October, 1913, which might be called the

period of reorganization, the new president, Mr. Benito Zaldondo gave it notable impulse. The activities which from this time the new Chamber of Commerce entered into obtained deserved praise, and although the efforts of the organization in attacking problems as important as the creation of free ports in Porto Rico and the organization of a steamship line controlled by our commerce, did not achieve such success as might have been desired, they gave faith of the Chamber's sound purposes. The Chamber also cooperated with other commercial associations that developed their activities at that time, in the realization of several projects of unquestionable usefulness, and we must therefore acknowledge the success the Chamber attained.

The Board of Trade: At the end of 1905 the foundation of a commercial association under the name of "Board of Trade" was thought of, and it must have already had some official representation, for in a report of the "Defense Committee" organized by reason of a longshoremen's strike, we find the following paragraph:

"In view of the growing seriousness of the matter due to deterioration of merchandise and the obstruction of trade, two conventions were called Saturday, July 1, one of them by the President of the Chamber of Commerce and the other by several gentlemen who are organizing the Board of Trade."

These two conventions merged into one at the halls of the Chamber of Commerce, under the presidency of Mr. Paniagua, but we have not been able to find any data showing further work of the Board of Trade in favor of island interests. We are convinced, however, that it took an active part in certain activities for the welfare and progress of the island's commerce, and it must have been in operation for a number of years, because in the Register of Porto Rico for 1910 we find the Board of Trade of Porto Rico included among the commercial associations, the Board of Directors of said Board of Trade being at that time Messrs. John A. Wilson, President; F. F. Harding, Secretary, and John M. Turner, Treasurer. The Board of Trade, however, does not seem to have been registered, for in the Registry of Associations in the office of the Secretary of Porto Rico, its name does not appear.

French Organization: In 1906 and on initia-

tive of Messrs. Mateo Lucchetti and S. F. Lorenzi, with the decided endorsement of other distinguished Frenchmen, the "Chambre de Commerce Francaise," was organized in San Juan under the presidency of Mr. Lucchetti. The principal object of this association was the tightening of commercial bonds between France and Porto Rico. In spite of the fact that this French Chamber of Commerce attained the results sought, it ceased to exist in 1908 for reasons foreign to the best wishes of the parties interested.

Porto Rico Association: For the purpose of promoting commerce, industry, agriculture and the welfare of the island, the Porto Rico Association was founded in 1910, with offices in San Juan. This association was organized on initiative of Governor Colton who lent it his decided personal cooperation, specially in matters of propaganda to stimulate consumption of our coffee on the American continent. To this end an agency for the exhibition and sale of the product was established in New York. Notwithstanding its good purpose the time came when the financial condition of the association would not permit the continuance of the agency. The Porto Rico Association did not incorporate until March 28, 1913, the date on which it was registered in the office of the Secretary of Porto Rico. It was dissolved by Joint Resolution of the Legislature, approved May 15, 1919. The presidents of the Porto Rico Association were Messrs. Eduardo Giorgetti and Antonio R. Barceló, and its secretaries were Arturo Bravo, Augusto Palmer and G. F. Correa, while Mr. Fred P. Fox was the manager.

The City Club: Although the chief purpose of the City Club was to promote social relations, the Club was used as a means of cordially discussing problems of great interest to the commercial community and in favor of civic welfare, ideas which were later crystalized by the Porto Rico Association. Governor Colton was the promotor of the City Club also, the regulations of the Club having been approved February 9, 1911.

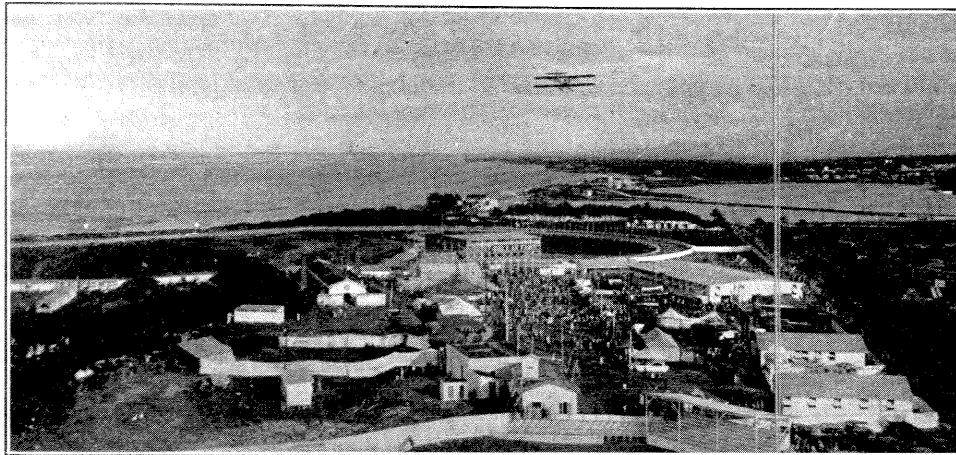
San Juan Stock Exchange: Under the name of San Juan Stock Exchange another commercial association was founded on July 15, 1909, with the principal purpose of regulating the price of values, transactions in sugar and in all other products to be made within the offices of the association, with exhibition of samples. The Stock Ex-

change's sphere of action was limited to the foregoing, since the Chamber of Commerce of Porto Rico which was at that time in the active exercise of its functions, was utilized for other purposes.

The founder of the Stock Exchange, by which simplified name it was known, was Mr. Sosthenes Behn, and the first Board of Directors was formed by Messrs. Sosthenes Behn, President; Eduardo Giorgetti, Vice-President; A. H. Noble, Secre-

during the San Juan longshoremen's strike was very efficacious. The San Juan Stock Exchange was active from the date aforesaid to July 30, 1913, when it was dissolved because of merger in a new association of which we will speak later.

New Commercial Associations: In 1911 the Importing and Exporting Commercial Association of Mayaguez was organized in that city, its activities having extended to a much greater sphere



LA TERCERA FERIA INSULAR.—INSULAR FAIR GROUNDS.

tary-Treasurer, and Manuel Paniagua, Ramón Valdés, Luis Rubert, Damián Monserrat, Luis Toro, José León Núñez, Rafael Fabián, Ramón H. Delgado and Sergio Ramírez, members.

By itself and in cooperation with other centers the Stock Exchange took part in matters of general interest. The preparation of a contract which served as a basis for transactions in rice, by which means an end was put to the frequent discussions and differences between buyers and sellers, was the exclusive work of the Stock Exchange. The association favored the generalization of the arbitration system for the settlement of controversies, which system has given the finest results. It contributed towards the improvement of transportation conditions between the island and the mainland; to the improvement of docking conditions in the harbor of San Juan; to the obtainment of advantages in the mail service, upon agreement with the administration; established a feeling of harmony between commerce and the customhouse; used its influence to obtain better compliance with sanitary orders, and its intervention

than that stated in its by-laws, this fact alone showing the important services rendered to the commercial community, specially in the western city. Mr. Tomás Quiñones was president of the first Board of Directors, while Mr. Thomas Boothby, Jr., was secretary. Mr. Primitivo Grau was later president up to December 11, 1913, on which date the association was dissolved to be merged in another as will be seen later.

To conform to the Laws of Associations of Porto Rico, the Retail Provision Dealers' Association above mentioned had to incorporate on March 29, 1912, and said association has continued to render very valuable uninterrupted services. The successive presidents of that association from the time of its foundation, having been Messrs. Venancio Luíña, Pablo Piñero, Juan Cortínez, Antonio Méndez, José Caldas, Manuel Martínez, Antonio Blanco Fernández, Ramón Docampo, Benigno Fernández, José García Díaz and Miguel Llompert Noa, who now holds said office.

For the purpose of protecting the mutual interests of retail dry goods merchants and specially

to promote cleanliness and morality in payments, the Commercial Association was founded in 1913 and 1914, said association having met with great success in the ends pursued, besides having contributed, together with other mercantile institutions, to the good results obtained by them in favor of the public wealth. It is a matter of regret that it should have been of so short duration. Messrs. J. W. Blanco and Manuel Cambor were presidents of this association, while Messrs. J. Saul and P. del Río, were secretary and treasurer, respectively.

The Insular Chamber of Commerce: The Insular Chamber of Commerce was organized July 26, 1913. This decision was taken by virtue of the growing sphere of commercial action of the San Juan Stock Exchange, and because of the need of a chamber with branches in the other important ports of the island. Repeated efforts were first made to bring about a fusion with the then existing Chamber of Commerce of Porto Rico, which would thus have had an opportunity to work in an ampler sphere. Unfortunately, and perhaps because of unlooked for erroneous interpretations, this project did not crystallize, the Insular Chamber of Commerce having been finally organized independently of the Chamber of Commerce of Porto Rico.

Sections of the Insular Chamber of Commerce: The idea of the foundation of a Chamber of Commerce with sections, including a San Juan Section, having been received with enthusiasm in the island, the Insular Chamber of Commerce—Ponce Section, Mayaguez Section, San Juan Section, Arecibo Section, Aguadilla Section, Guayama Section and San Germán Section, were established. The Insular Chamber of Commerce—Mayaguez Section succeeded the Importing and Exporting Commercial Association of Mayaguez, above referred to, and the Insular Chamber of Commerce—San Juan Section replaced the San Juan Stock Exchange.

Constitution of the Insular Chamber of Commerce: In the constitution of the Insular Chamber of Commerce it was clearly stated that the word "Commerce" was to be understood as including production and distribution, comprising industrial and agricultural interests, and as to the Sections, it was explained that while they must act in accordance with the constitution of the Insular

Chamber of Commerce, they had full liberty to appoint their own directors, to make their own regulations, and to deal with local matters.

The practical results obtained by the Insular Chamber of Commerce with the cooperation of its sections have been fully demonstrated by the impulse acquired by the Chamber in all its movements. It put an end to the disagreeable discussions between buyers and sellers over the delivery of merchandise admitting claims or over non-fulfillment of contracts. This was done by diffusing the sound idea of settling controversies by arbitration, this practice having been currently established.

The New Chamber of Commerce of Porto Rico: At an assembly held by the Insular Chamber of Commerce on February 23, 1920, by which time the Chamber of Commerce of Porto Rico had been liquidated, it was decided to change the name of Insular Chamber of Commerce, for Chamber of Commerce of Porto Rico, and at the assembly of February 11, 1921, upon request of Mr. Harry F. Bassa, it was decided to incorporate under the laws of Porto Rico so as to give the Chamber of Commerce such legal representation as it had lacked theretofore. Thus was the Chamber of Commerce of Porto Rico finally reorganized from and after February 21, 1921.

Work of the Chamber of Commerce of Porto Rico: The sphere of action of the new Chamber of Commerce of Porto Rico has not been solely limited to the interests of any special branch of business. On the contrary, it has given its attention to the protection of business in general, and has looked out for the interests of agriculture and industry as well.

In corroboration of these statements we might mention the constant efforts of the Chamber of Commerce and its Sections on behalf of tariff protection for Porto Rican coffee, although the only success achieved along this line was the enactment of an insular law prohibiting competition of foreign coffee in the island. The Chamber of Commerce carried out a successful campaign against depriving sugar of the tariff protection it enjoyed, and placed all its influence behind the movement for the extension of the consumption of Porto Rican tobacco, and very recently it co-operated decidedly and successfully in obtaining a one-half cent duty on cocoanuts.

Its successful efforts in the matter of the dredging of San Juan harbor are also worthy of mention.

By means of publication in the United States the Chamber of Commerce has contributed towards extending on the continent a knowledge of the new American territory, and this is true to such an extent that present requests for information as to the island's activities are innumerable, such requests coming from persons desiring to establish different relations in Porto Rico, in many cases with the purpose of coming here to live.

The repeated efforts of the Chamber of Commerce placed it in condition to offer facilities that culminated in the establishment of Camp "Las Casas," where native recruits received training during the war, and to the co-operation of the Chamber of Commerce in the speeches of Governor Yager to our associations, was greatly due the importance of the sums invested in Liberty Bonds. It encouraged the government in the establishment of Rural Banks in the island and in carrying out the now finished Southern Coast Irrigation System.

Association of Chamber of Commerce with National Chamber: The Chamber of Commerce of Porto Rico having joined the National Chamber of Commerce at Washington, the former now enjoys the right of intervention through its National Council in matters discussed by the latter at its annual conventions, and also takes part in the decision of such matters as are submitted to referendum. Through the said National Chamber of Commerce, the Chamber of Commerce of Porto Rico may also make suggestions to the International Chamber of Commerce, at Paris, where there is a permanent American representation.

Presidents of the Chamber of Commerce: The presidents of the Chamber of Commerce of Porto Rico have been as follows: Mr. Sosthenes Behn, 1913-15; Mr. Manuel Lomba, 1916; Mr. Alberto E. Lee, 1917; Mr. Eduardo Ferrer, 1918-20, and Mr. Manuel V. Domenech from February, 1921, to the present time.

Mr. Luis Sánchez Morales, Elias A. Wolff, Segundo Cadierno, and Waldemar E. Lee, were presidents of the San Juan Section, the office now being held by Mr. Miguel Morales. The

Ponce Section has been presided over by Messrs. Joaquín Armstrong, José González Osorio, Antonio Morales Lebrón and José Pou Carreras; the Mayaguez Section by Messrs. Beningo Rodríguez, Thomas Boothby, Jr., Primitivo Grau, A. Vicens Sastre and J. C. Cabanillas; the Arecibo Section by Lorenzo Oliver, Adolfo Koester, Andrés Oliver and Pedro Mora Acosta; the Aguadilla Section by Fernando Yumet, E. Rubio, Jr., Matías Vidal Sánchez and E. H. Lienau; the Guayama Section by G. Cautiño, M. Tejedor, F. Buitrago and Fernando Beiró, and the San Germán Section by R. A. Torres.

Chambers of Commerce Co-operate in Progress of Community: Just as events vary in aspect because of the evolution of the times, just so do Chambers of Commerce follow the new courses laid out for them. Hence the so-called modern Chambers of Commerce have a much greater scope than formerly, their influence in the world having attained immense proportions. Their sphere of action is no longer limited to questions solely aiming towards a certain line of progress. On the contrary, they offer decided co-operation in all matters relative to the progress and welfare of the community as a whole. Committees appointed by it consider and decide great financial, administrative, social, civic, moral, educational and other problems which result in benefit to the locality, state or nation, such benefits even reaching to other countries.

The degree of progress in the development of Chambers of Commerce, has been noticeable in general terms, but specially in such organizations as are in completely unburdened financial condition, since they are able to employ a well-paid office force who having attained a high standard in the performance of their duties, place themselves in position to conceive and bring up new ideas for the benefit of the institution. Such Chambers also count on a well-organized department of foreign and domestic information, this department being at present almost indispensable in associations such as ours, when we bear in mind that the inquiries of a general nature are as frequent as they are numerous.

These organizations also endeavor to maintain close and cordial relations with each other, and free of personal selfishness they spread such

knowledge as they acquire through careful investigation. That is the reason why these Chambers of Commerce are so respected and worthy of the confidence of governments. Their mission has always been one of a constructive character. In this sense they have gained ground, and their efforts will be better remunerated in the future.

The wheels of progress may not be able to turn without the intellectual axis, but neither can we do without the material basis, and through the conviction of that truth we see the surprising

advance of the Chambers of Commerce on the American continent, where, notwithstanding the great numbers on which they count, they never cease to grow by the admission of new members.

The Chamber of Commerce of Porto Rico seeks greater development within the new scope at present set for associations of this class, and with the unconquerable purpose of figuring in the first line among those of its category, it hopes that by increasing its activities, the results secured for the good of the community will be greatly increased.

Commercial Treaties

Free Trade

By **Sergio Ramírez de Arellano,**

Vice-Consul of Argentine Republic.

During the short autonomic regime which was established in the last years of the Spanish dominions of Cuba and Porto Rico, they enjoyed the privilege of making commercial treaties. Cuba initiated her rights as an autonomous country by putting a custom barrier on the importations of Porto Rican leaf tobacco, at that time very important in her tobacco industry, saying that the entrance of tobacco from that island created obstacles to the development of her own production.

Porto Rico's First Modern Cigarette Factory Established. This measure created a great crisis in Porto Rico tobacco production, and she, exercising legitimate right of defense, in her turn charged high duty on Havana cigarettes, at that time the only ones consumed by Porto Ricans, and to afford an outlet for Porto Rican tobacco, which Cuba had ceased to purchase, large cigarette factories, equipped with modern machinery, were established. Factories which later formed the nucleus of the powerful association which, on the change of sovereignty in Porto Rico, was formed as the Porto Rican American Tobacco Company and which today has so many huge plants on the Island.

Thus it will be seen that Cuba's efforts to

effect a customs barrier between Porto Rico and herself, worked to the advantage of the greater development of the latter's enterprises for the manufacture of her tobacco on her own soil.

When Her Right To Make Treaties Ceased.

With the advent of the American sovereignty in Porto Rico the right to make treaties, which she had enjoyed for such a short time, ceased, she being considered in that respect the same as the States, but under the original terms of the Foraker and Jones bills, history records that provision was made for her to make treaties, but the Jones Law was changed from its original projects before it became a law, so that was eliminated, and custom-houses of a purely insular nature were introduced, the same as was done with the Philippine Islands.

An Existing Precedent For Colonial Right to Make Treaties.

Returning once more to the economic war between the two sister Antilles at the time that the autonomic government of Spain granted the right to make commercial treaties, this was at the time a matter of extraordinary comment, but there is no doubt that the measures which were adopted by both were inspired by a natural right of protection of the agricultural indus-

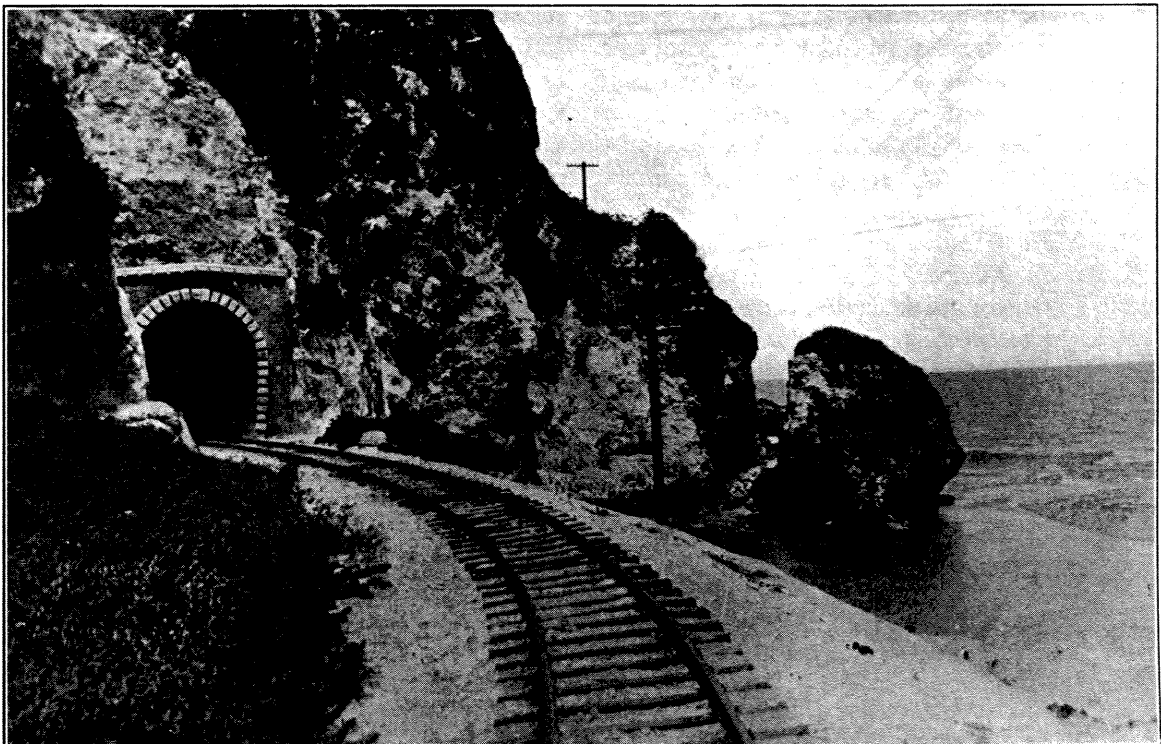
tries, just as Canada in the wish to foster her industries or needing increased fiscal income, maintains a tariff which burdens in a reasonable measure, certain importations from Great Britain. England recognizes that the economic interest of her Domains can even create a conflict with her own, and she also shows by her action that she recognizes that no one can defend better the interest of her Dominions than they themselves, and has consented therefore, at last, to the appointment of diplomats from Canada together with Embassies or Legations abroad, so that the people of her colonies through them may be the ones to initiate or carry on negotiations for the agreement of any intimate arrangement or treaty necessary with foreign countries.

A Serious Economic Crisis in the Island Ended by the European War. In 1913 when the Democratic Party again came into power in the United States, it inaugurated the doctrine of "cheapening of food of the poor," which maintained coffee free of duty and placed sugar in the list of tariff free, a desperate economic condition reigned in the island which

made many think that the interests of Porto Rico production would become in conflict with the interests of the continent.

The European War however subdued that crisis, the Congress of the United States being caused thereby to reestablish the duties on sugar, but that policy may triumph again and when that time comes, or before, Porto Rico ought to solicit the privilege which she formerly had under Spain, to look by means of commercial treaties for the protection of her products, for example, coffee, which is not produced in any country of Europe nor in Argentine, and which Cuba produces on so small a scale, and which thus lends itself, as no other product, for the transaction of economic arrangements.

An Illustrating Venezuelan Example. A peculiar case exists in regard to Venezuela and Porto Rico; the former in this case desired to antagonize certain islands, such as Curacao and Trinidad from where smuggling is actively carried on with the extensive Venezuelan coast, and not wishing to particularize against such islands, has established a tariff against



TUNEL DEL GUAJATACA.—THE GUAJATACA TUNNEL.

all the Antilles, among which is Porto Rico, and this tariff is higher than that imposed to the United States—certainly discrimination against one part of the Union.

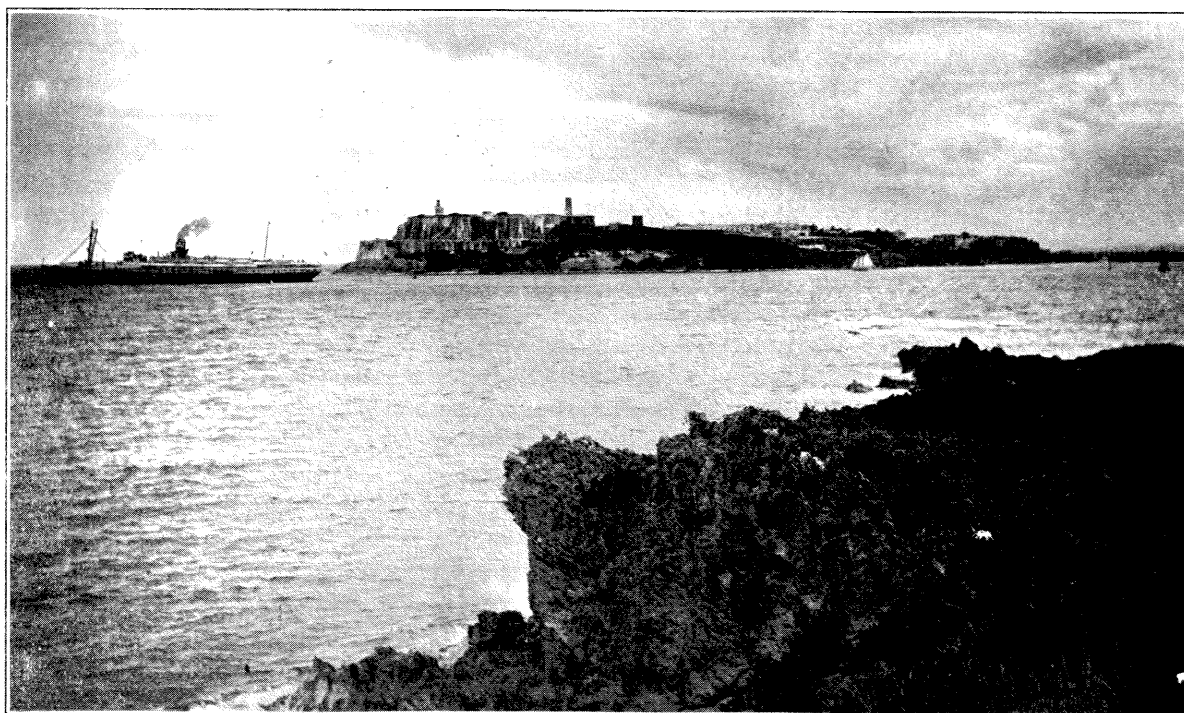
What This Means. This tariff means that Porto Rico is prevented from sending to Venezuela, a country just thirty-six hours from her shores, certain articles of its own importation which should happen to be lacking in Venezuela at certain times. On the other hand, if Porto Rico were in a position to make an arrangement with her, offering her an advantage for her meats, cacao and petroleum, she could most certainly make her modify her customs legislations with the island.

We mention meat as the first and most important commodity above, and in considering that in its relation with meat production of the States, due consideration must be given to the fact that at present Porto Rico's importation of meat from the States is comparatively small, due to the high price made necessary for it in her market by the factors of long ocean transportation, and necessary refrigeration; and hence such arrangement would not

act in competition against any existing trade in meat between two parts of the United States.

A New Horizon for the Island's Industries. But if necessary Porto Rico can bear all such seeming hardships because the legislation of the Republican Party by means of the Fordney-McCumber tariff gives her sugar and tobacco protection which greatly compensates her for the high duties imposed on her importations. Besides, the United States opens for her fields that are as yet little exploited, for the establishment of industries which could provide many products for the American nation.

Porto Rico, it is true, lacks those fundamental factors of industry, its backbone even—coal, petroleum and iron, but on the other hand possesses a factor, one very important as well—cheaper labor than in the cities of North America, not to mention water power, capable of much more intensive development for the hydraulic manufacture of electric current. She also is connected to the States by eight steamship lines which at present charge reasonable freight rates, and is also nearer to



CANAL A LA ENTRADA DE LA BAHÍA DE SAN JUAN.—A LINER PASSING OUT OF SAN JUAN HARBOR.

the South American continent from which can be brought the many raw products needed for the establishment of factories for shoes, chocolate and so many other things, many of which are enumerated in a separate article in this book. Such a favorable equilibrium of her commerce would tend to increase the island's prosperity as a whole, and would help solve the serious problem of employment for her dense population.

Some Specific Examples of the Benefit of Free Trade With the United States. Free trade with the States, in fact, has already greatly redounded to her benefit. It has raised her sugar and tobacco industries to surprising figures since 1898, and has created new sources of income for her inhabitants, such as the cultivation and exportation of fruits, which before that date reached low figures; chemical fertilizers, so necessary to her agriculture are now produced by her, while blouses and other embroideries give employment to numerous women in the Island, a most important thing in view of the large excess of females over males, as mentioned elsewhere in this book.

New Industries Being Planned. Other industries also, new ones for her, are now being studied over for possible establishment in Porto Rico; among them may be mentioned those for manufacturing paper, buttons from mother of pearl, shoes, etc., and these will be followed by others, thus opening a great field for new industries here, more fully treated on elsewhere in this book. Thus it will be seen that free trade between Porto Rico and the States of the continent has been of benefit, not alone to that island, but equally to the entire United States nation, because it has permitted her to absorb almost totally all of the Island's commercial exports, and further because it has tended to aid Louisiana and Texas, for example, to greatly enlarge their rice production, which was very insignificant prior to 1898.

Important Project—San Juan a Free Port. Among other economic reforms, aspired to by Porto Rico, is that of creating a free port at San Juan which would permit the entrance and storage of merchandise and commodities, to be afterwards distributed either for the

Island's consumption or for re-exportation to neighboring countries. This would naturally bring a far greater number of steamships to that port and thus give occupation to a greater number of day laborers and benefit the whole island generally and San Juan in particular.

More than once the press has discussed this project, and it is said that the Chamber of Commerce is studying it at present. True, this matter of making San Juan a free port would require special legislation by the United States Congress, just as the right of the making of commercial treaties as above mentioned would, but it is also true that while the precedent for such action in the latter case is found in the acts of another Nation, the precedent of different legislation for states and territories is already established in the United States by permitting Porto Rico to have special laws on internal revenue, as well as on income duties and even on matters pertaining to custom houses, because Congress allows her to retain the fees collected in them, thus proceeding in her case in a different way than that employed in the national territories, including Hawaii, and has shown the intent of considering, in that respect, Porto Rico as a separate country which must be governed by different laws than those justly enforced in other portions of the Nation.

What of the Future? The attainment of the reforms mentioned above will greatly depend on the solution to the final status of Porto Rico given by the Congress of the United States. If the final solution were to take the acquisition of an autonomic government for example, there is no doubt but what she would have the right to carry out those measures and any others of a fiscal character which it would seem wise to introduce, but should that moment arrive sight must not be lost to the fact that she would also have to get ready to assume a number of other obligations which today are under the Federal Government, such as the maintenance of the Army, Lighthouse service, the deepening of the ports, the extensive wireless service and other functions of the United States Navy, as well as the Federal Banks and other Federal service rendered the Island.

Banking Institutions

By Manuel Paniagua,

Banker and Financial Expert.

The wide scope of this book does not permit more than a short historical synthesis of the Banks so far established in Porto Rico, and some important particulars concerning their development and the great benefits rendered by them to the Island's commerce, agriculture and industry.

Short Existence of Early Banks. Fifty years ago in all Porto Rico there was not a bank. A branch of the London Colonial Bank, established in San Juan about the middle of the last century, having disappeared two or three years after it was started; and a small savings bank organized a little later for the encouragement of savings among the people of small means ended its career in bankruptcy in 1879.

The Oldest Bank of the Island. The "Sociedad Anónima de Crédito Mercantil" (Anonymous Society of Commercial Credit), established in 1877, was the first successful bank organized in the island. This bank was the forerunner of the "Banco Español de Puerto Rico" (Spanish Bank of Porto Rico), established in 1888, the stockholders of which organized and incorporated the present "Banco Comercial de Puerto Rico" (Commercial Bank of Porto Rico), when the former in 1913 reached the term of its concession. The "Banco Comercial de Puerto Rico" is, in fact, the oldest bank of the Island and the author was its organizer, incorporator and first president.

"Banco Territorial y Agrícola." Chrono-

logically, the second place belongs to the "Banco Territorial y Agrícola" (Agricultural and Territorial Bank), established in San Juan in 1894 and created as its name indicates, to strengthen the territorial credit and further the agricultural industry, a mission which it has, and is still fulfilling.

"Crédito y Ahorro Ponceño." About the same time there was organized in Ponce, under the name of "Credito y Ahorro Ponceño," (Ponce's Credit and Savings), a financial institution that filled a need in that city. It was later reorganized with an increase of its capital and occupies at present a prominent place among the island's banking institutions.

"Banco Popular." Next, there was established in San Juan in the last decade of the nineteenth century a small savings bank, the "Banco Popular" (Popular Bank), which has developed into more than a savings bank, though not forgetting the chief aim for which it was organized.

Early Limited Resources. These four were the banks existing in Porto Rico in 1898 when the change of sovereignty occurred, the annual disbursements of them all not reaching \$1,500,000 by the end of that year. Their circulating bonds and bills issued reaching to about three millions; their deposits to two and a half; and their loans to about four and a half millions, and the actual cash in their vaults to over three million dollars, which it could be asserted was the total cash in the island at that time.

STATISTICAL DATA ON BANKS ESTABLISHED IN PORTO RICO AT DECEMBER 31st, 1898

	Cash on Hand	Loans	Deposits	Liabilities	Capital and Reserves	Undivided Profits
1. Banco Español de Puerto Rico . . .	\$1,944,077.22	\$2,551,085.52	\$1,111,626.42	*\$1,995,000.00	\$ 862,500.00	\$105,624.74
2. Banco Territorial y Agrícola	588,663.81	1,260,553.55	576,386.08	†894,254.38	505,728.13	32,813.92
3. Banco Popular	4,102.61	43,901.76	13,101.66	1,500.00	30,112.88	3,017.85
4. Crédito y Ahorro Ponceño	527,378.84	528,414.30	766,190.07	125,000.00	158,144.59	25,000.00
	\$3,064,222.48	\$4,398,955.13	\$2,467,304.23	\$3,015,754.38	\$1,556,585.60	\$166,456.51

* Paper Money issued.

† Mortgage Bonds issued up to \$770,440. The balance represents other obligations.



CENTRO BANCARIO DE LA ISLA.—THE HEART OF THE ISLAND'S FINANCIAL DISTRICT.

Such limited banking facilities were, nevertheless, in accordance with the actual needs. Commercially, everything was small, consequently nothing big was needed. The greatest exportation of the island in those days was eighteen million provincial dollars, that is, over ten million dollars in United States money, consequently no more banks were necessary for such restricted commercial demands.

The New Era of Great Financial Development. The change of sovereignty opened an enormous market to the island's products, and the establishment a little later of free trade with the United States, assured the great benefit of a protecting tariff, which has raised Porto Rico's production in geometrical progression.

This increase in production could not be handled with the banking resources existing in 1898 and as they were necessary new banks were established to cooperate with those in existence in the development of the Island's riches.

"American Colonial Bank." The first of these banks to start business was the "American Colonial Bank" in 1899, which was followed by the "First National Bank of Porto Rico," which more properly was an outspring

of the first and which soon after ceased operations because the mission of both was filled by the American Colonial Bank.

Canadian Banks. In 1907 or 1908 the "Royal Bank of Canada," one of the largest and strongest banking institutions of Canada, established a branch in San Juan, and a little later the "Bank of Halifax," another important Canadian bank, also established a branch there.

Later, the Bank of Halifax having been absorbed by the Royal Bank of Canada, the branch of the former disappeared, its business having been left to the Royal Bank of Canada with offices in San Juan, Ponce and Mayaguez.

The "Bank of Nova Scotia" was soon established to fill the place left vacant by the bank of Halifax, it being established in the building formerly occupied in San Juan by that bank and having branches in Ponce and Mayaguez.

"Banco de Ponce." Meanwhile, the enterprising city of Ponce was not satisfied with only a bank of its own and various branches of the San Juan banks, and therefore, a new institution was organized about four years ago with the name of "Banco de Ponce" (Bank of Ponce), which duly cooperates in the development of business in its district.

"The National City Bank of New York." Finally, "The National City Bank of New York, which was established in 1812 and is now the largest banking institution in the United States, opened branches in San Juan and Ponce, bringing world-wide banking facilities to the Island to aid in the further development of Porto Rico's business.

The "Banco Comercial," the "Banco Territorial," the "Crédito y Ahorra Ponceño" and the "American Colonial Bank" also have branches in the island's principal cities, thus efficiently serving the banking needs of the island.

Number of Banks. Besides the nine banks operating in the island and their eighteen or twenty branches, there are nine other less important banks devoted principally to savings accounts, though some of them further by financial aid the agriculture of their respective districts.

Volume of Business. At the end of the last financial year the total deposits of all banks in the island reached \$28,500,000 with a cash deposit in vaults and in other banks of \$11,000,000 and total loans of over \$25,000,000, besides investments in stocks and bonds of \$3,500,000. The quick assets and reserves of fifteen banks established in Porto Rico which are not branches of foreign banks, reach \$8,000,000 and their total active reaches \$42,000,000.

Enormous Banking Development. If the above figures are compared with those of 1898, the great banking development attained by the island in the last twenty-five years will be seen.

Federal Land Bank. In summing up this survey of the existing banks of Porto Rico, it should be stated that a few months ago a Federal bank for agricultural credits was established in San Juan, au-

thorized to make loans at long terms, with mortgage guaranty up to \$5,000 to each landowner, this sum having been increased to \$10,000 in view of the strong guaranties offered and of the good results rendered by this bank.

A Big Factor in the Island's Sources of Production. As it was to be hoped, the great development acquired by the banks permits them all, both the old ones and the newly established, to afford the commercial and especially the agricultural industries, large resources with which to meet the increasing necessities of the first and the remarkable development of the latter.

Benefits of the Big Loans. A good part of the Island's sugar Centrals and not a few tobacco factories could not have been established and developed were it not for the big loans made them by the banks for their establishment and the financing of their crops.

Today, after the high prices which the World War originated and in spite of the great benefits they gave, the island's agriculture and agricultural industries, generally speaking, live on the credit given by the banks, to which the industrial men respond by fulfilling their obligations religiously.

Increase of the Agricultural Production. Owing to the facilities which the banks have given agriculturists, the island's agricultural production on which seven-eighths of her population live is eight times larger than twenty-five years ago. Therefore, it can be rightly said that the banks are the prime factor in Porto Rico's economic life.

May those banks develop constantly to increase the benefits which they give to the island's agriculture, industry and commerce, and may the latter make proper use of such benefits for their greater progress.

The Federal Land Bank of Baltimore Porto Rico Branch

By Ernest B. Thomas, Manager

Manager Porto Rico Branch, Federal Land Bank of Baltimore.

The Federal Farm Loan Act was passed during the 64th Congress and approved by the President on July 17th, 1916. This measure became a law after full consideration of the subject.

Provisions of the Act. The act provides that its administration shall be under the direction and control of the "Federal Farm Loan Board," which is created by the terms of the act itself. This board is composed of five members including the Secretary of the Treasury, who is a member and chairman ex-officio, and four members to be appointed by the President of the United States, by and with the advice and consent of the Senate, and of the four members so chosen no more than two shall be appointed from the same political party.

Under the provisions of the act, the board mentioned was given the duty of selecting the cities in which the several Land Banks were to be established, and according to provisions of the Law, 12 banks were located and the territory in which they each were to operate was designated by this board.

Each one of the Banks has its President, Secretary, Treasurer and the usual Board of Directors and the duties of those officers are the same as like officers in similar institutions.

These banks are under general supervision and subject to examination by the Federal Loan Board and they are operated as distinct corporations.

The Purpose of the Law. The purpose of the law stated in the caption is as follows: "An act to provide capital for agricultural development, to create standard forms in investments based upon farm mortgages, to equalize rates of interest upon farm loans, to furnish a market for United States bonds, to create government depositories and financial agents for the United States, and for other purposes."

It is apparent from reading the caption of

the act, that the outstanding purpose is as stated in the first clause, "an act to provide capital for agricultural development." It is also apparent that this purpose would be impossible of realization unless the other purposes mentioned are also attained. The body of the act itself makes this fact even more apparent for the ability of any Federal Land Bank to provide capital for agricultural development and to equalize rates of interest upon farm loans, depends upon its success in creating a high standard for its bonds which it offers for sale, and the reputation of those bonds depends primarily upon the character of its farm loans.

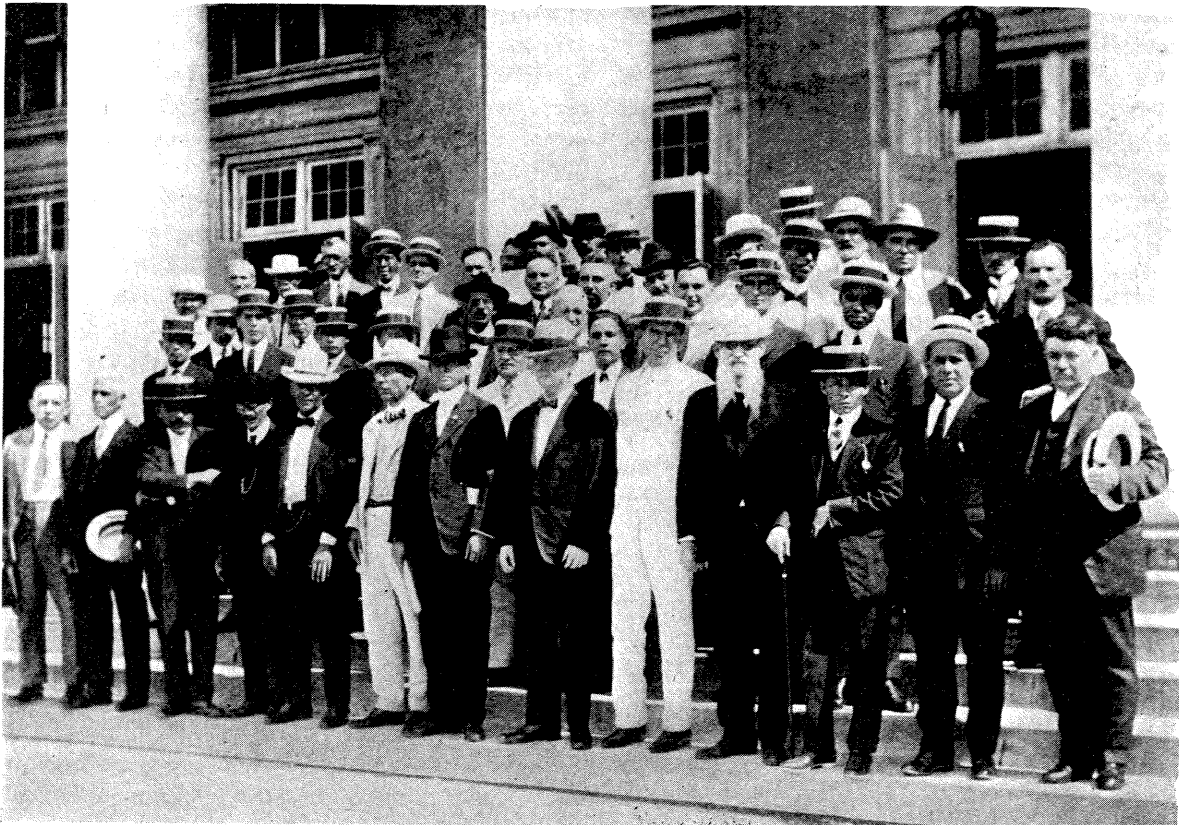
How Their First Capital Was Obtained. Under the provisions of the law, the first capital of these banks was supplied by the Secretary of the Treasury of the United States to whom capital stock of the Federal Land Banks was issued. This was the method provided by the law by which the banks were to receive their first capital. The Law further provides that when any bank is in need of more funds with which to make farm loans, after having obtained the approval of the Federal Loan Board, it may issue bonds and offer them for sale in the open market. These bonds are secured by the notes and mortgages which the bank holds.

High Rating of Farm Land Bank Bonds. From the beginning of the operation of the Farm Land Banks their bonds have had a high rating in the market and this has been due to the fact that the loans upon which they are based and by which they are secured have been carefully made under the conservative policy and management of the several Land Banks.

Care in Making Loans. Nothing would more quickly cripple the ability of Land Banks to serve the farmers in their respective districts than if the banks made loans carelessly or upon insufficient security.

The Intention of the Act—To Provide Capital for Agricultural Development. It is the primary purpose of the Land Bank in Porto Rico to render the greatest possible service for the improvement and betterment of farm

extension of the provisions as follows: "The Federal Farm Loan Board shall establish in each Federal Land Bank district a Federal Land Bank with its principal office located in such city within the district as said board shall



PRIMERA REUNIÓN DE LOS TERRATENIENTES PARA LA ORGANIZACIÓN DEL BANCO FEDERAL.
FARMERS' MEETING FOR PROMOTION OF THE FEDERAL LAND BANK.

conditions throughout the Island. This bank could make no greater mistake, however, than to adopt a policy different from the one that is so strictly followed by the banks in the States.

The Federal Farm Loan Act is intended to provide capital for agricultural development and its passage by Congress was welcomed everywhere by agriculturalists.

Establishment of Banks in Porto Rico. After the success of the Banks was demonstrated in the States the request was made that the law be extended to Porto Rico, and in response to such request, the law was amended on February 27th, 1921, which authorizes the

designate. Subject to the approval of the Farm Loan Board, any Federal Land Bank may establish branches within the Land Bank district. Subject to the approval of the Federal Farm Loan Board and under such conditions as it may prescribe the provisions of this act are extended to the Island of Porto Rico; and such Federal Land Bank as may be designated by the Federal Farm Loan Board is hereby authorized to establish a Branch Bank at such points as the Federal Farm Loan Board may direct on the Island of Porto Rico.

During the summer of 1921 a commission was sent to Porto Rico to investigate conditions and to report on the advisability of establish-

ing a land bank for this Island. That commission was composed of Captain W. H. Smith, member of the Federal Farm Land Board, Mr. George Janvier, attorney of New Orleans, and the writer, and arrived in San Juan on the morning of July 4th, 1921. Upon the return of the commission verbal reports were made to the Board in Washington of conditions as observed in Porto Rico. Later written reports were submitted by the members of the commission.

In accordance with the amendment the Federal Farm Loan Board added the Island of Porto Rico to the Loan district of the Federal Farm Loan Bank of Baltimore and authorized that bank to establish a branch bank in the city of San Juan, and this branch bank is the first one established in any of the outlying portions of the United States.

The work of establishing the Bank in Porto Rico began in June, 1922, under the direction of the writer, who had been named as manager, by the Board in Washington. Quarters for the bank were provided by the Insular Government in the building known as the Senate Building, located at the corner of San Jose and Salvador Brau streets, San Juan.

Dissemination of Information Concerning the Banks. Prior to the opening of the bank for business, a series of meetings was arranged by the Hon. Leopold Feliu, Commissioner of Agriculture and Labor. Those meetings were held in twenty-five or more towns and cities and were largely attended by farmers. Mr.

Feliu and the manager of the bank attended practically all of the meetings held. It was shown by actual count that more than 5,000 farmers were in attendance at the several meetings. The opportunity thus given to explain the purpose and the methods of the bank's business proved a most valuable medium of publicity for the dissemination of general information concerning the bank.

First Application for a Loan. The first application for a loan was received on the 22nd day of September, 1922, but October 1st should be regarded as the date when the bank actually began receiving applications for loans.

Within the first five months the bank received more than nine hundred applications for loans, aggregating more than Two Million Dollars.

Amount of Maximum Loan. The amendment to the law that extended its provisions to Porto Rico fixed a limit of \$5,000 as the maximum loan that could be granted to any one person. The last Congress, however, changed the provision by increasing the maximum loan to \$10,000.

\$700,000,000 Loaned Farmers in the States. The twelve land banks have already loaned more than \$700,000,000 to the farmers in the States and have filled a very great need, in helping to finance the essential industry of agriculture. Likewise, it is believed that agriculture in Porto Rico will be greatly benefitted by the bank established in San Juan.



The United States Customs Service in Porto Rico

By Hayden L. Moore,

Collector of Customs. Came to Porto Rico in 1898. In the employ of the United States Government in various capacities, and since 1916 to date U. S. Collector of Customs for the District of Porto Rico, at San Juan. Bank Director, and President of the only Building and Loan Association in Porto Rico. Fruit grower and cattle raiser.

Inauguration of U. S. Customs Service. The United States customs service in Porto Rico began on October 18, 1898 on which date the transfer of sovereignty over the island was made by Spain to the United States. On that memorable date the flag of the United States was raised over all the customs buildings and offices of the island, and the records and balances of funds were transferred to officers of the United States army commanding the districts and posts at all ports of entry in Porto Rico. The Customs Service, thereafter, under the military occupation functioned in charge of army officers under the immediate direction of the War Department from Occupation Day up to May 1, 1900. On the latter date Civil Government was inaugurated in Porto Rico by authority of Act of Congress approved March 12, 1900.

Number of Officers and Employees. Under Spanish rule it has been stated on good authority, the Customs Service in the island of Porto Rico employed over 400 persons including principal officers and all subordinate employees. Today the Customs Service in Porto Rico is operated under the direction of the Honorable, The Secretary of the Treasury at Washington, D. C., by 55 Civil Service employees, which includes the Collector and the Deputy Collectors in charge at the headquarters port and the eight other ports of entry. In addition to these there are employed in the average about 15 unclassified laborers, janitors and messengers.

Improvements in the Personnel of the Service. When the island of Porto Rico was transferred to the United States, our government took over as much of the old personnel of the Customs Service as was needed to perform the required duties. Under the American Military Collectors, a very large percentage of the trade of Porto Rico was with the United

States, and as the duties between the United States and Porto Rico were gradually reduced under the Proclamation of the President and finally abolished altogether, a reduction in the personnel naturally followed in accordance with the new conditions. The Laws of Congress providing for Civil Government in Porto Rico,—that of 1900, known as the Foraker Act, and that of 1917, known as the Jones Act,—very wisely provide that the Customs duties in Porto Rico shall be collected by such Collectors, Deputy Collectors and Agents as the Secretary of the Treasury of the United States shall appoint, so that in accordance with the Civil Service Law of the United States those officials were brought under the classified Civil Service. The Collector of Customs for the district of Porto Rico, therefore, is the only Collector of Customs in the entire United States who enjoys and holds the protection of the Civil Service Law. The position of the Collector, is filled by promotion within the service and depends wholly on fitness and personal qualifications.

The status of the personnel of the Customs Service in Porto Rico has been very much improved since 1898. Inspectors of Customs at that time and for five or six years afterwards received compensation for their services at an average as low as \$540 per annum. Today no Customs Officer in Porto Rico is paid less than a basic salary of \$100 per month, very few of them earn less than \$1500 per annum including the bonus. The result is a very marked improvement not only in service rendered but in the reputation for honesty and fair dealing which the United States Customs Service in Porto Rico enjoys at the present time.

Handicaps to the Customs Service. There are still a great many handicaps that have come down from the old days. During the twenty

odd years of American control there has been scarcely any harbor improvement in Porto Rico worthy of name except at the harbor of San Juan, and a fair sized dock built by the city at the port of Ponce. Bearing in mind the fact that communication in the way of transportation of passengers and merchandise between Porto Rico and other countries and islands of the West Indies must be made upon or under the sea or thru the air, it will be seen that it is of the highest importance that the Government of Porto Rico should give its first attention to harbor improvements, they being vital to the development of the island.

Growth of Porto Rico's Trade. The following table shows the great growth of Porto Rico's trade during those 22 years as well as the important part played in that growth by the United States:

	1900
Brought from the United States.....	6,952,114
Shipped to United States	3,350,577
Imports from Foreign Countries	3,037,391
Shipped to Foreign Countries	3,261,922
Totals	16,602,004

Comparative Value of Goods Brought Into Porto Rico From the United States and Foreign Countries. A part easy to understand when one considers that Porto Rico's total outside supply of the following articles came from the U.S.A.: Brass, cornmeal, oats, wheat flour, candles, cars, automobiles, carriages and parts, explosives, cordage, rubber articles, scientific instruments, pork, pickles, etc., lard substitutes, refined sugar, vegetable oils, etc., and by the study of the following table:

Articles	From the United States Value dollars	From Foreign Countries Value dollars
Bread and biscuits.....	\$ 474,058	\$ 7,979
Rice	5,836,624	1,060
Chemicals, drugs and medicines	1,111,216	141,171
Coal	324,339	1,024
Cocoa and chocolate	135,828	5,800
Cotton cloth	5,347,722	26,426
Confectionery	437,476	50,449
Earthen, stone and china ware	292,061	13,258
Fertilizers	974,102	224,456
Fruits and nuts	316,277	85,949
Glass and glasswear	276,742	11,755
Iron and steel products....	4,571,216	46,136
Leather goods	2,644,904	50,741
Meat products	4,992,269	354,550
Condensed milk	446,879	1,301

Musical instruments	75,202	11,788
Paints and varnish	357,383	10,801
Paper and paper goods.....	1,755,960	107,161
Perfumeries, etc.	193,761	38,517
Silk, manufactures of.....	504,200	4,528
Soap	838,170	8,355
Dried beans and peas.....	1,555,930	23,414
Onions	168,741	29,898
Potatoes	460,825	9,459
Canned goods	105,096	36,213
Lumber	1,489,190	86,047
Furniture	473,175	7,958
Manufactured wool	469,932	4,270

Sugar Exports. Of the sugar exports during the period under consideration, it is of interest to note that whereas in 1901 there were but 68,909 short tons shipped, in 1920, the banner year, the shipments reached 419,388 short tons, which, as sugar rose in that year to an average price of \$235.88 per short ton, brought its value to the enormous sum of \$98,923,750 as against the value of the

	1914	1920	1922
	32,568,368	90,724,259	57,400,028
	34,423,180	133,207,508	66,229,771
	3,838,419	5,664,275	6,775,121
	8,679,582	17,603,941	5,942,800
Totals	79,509,549	247,199,983	136,347,720

1901 crop which was but \$4,715,611, the average price per short ton for that year being \$68.43.

Further, that with the exception of the years 1901, 1902 and 1907 the trade balance has always been in favor of Porto Rico, and that the United States share of the world commerce with Porto Rico has always been more than 70 per cent, reaching 92 per cent in 1916 and 1921. The United States share in 1922 was 90 per cent.

The annual exports of tobacco, manufactured and unmanufactured, amounts to more than ten million dollars, nearly all of which is shipped directly to the United States. Fruits, natural and preserved, bring in another three million dollars, and is increasing. Ninety-two percent of the Island trade in 1921, and ninety percent in 1922 was with the United States, compared with seventy-one percent in 1901 as stated above.

Tables. The following extracts from tables may be of interest and they round out this general survey of the United States Customs Service in Porto Rico:

IMPORTS AND EXPORTS BY YEARS			EXPORTS OF PRINCIPAL PRODUCTS OF PORTO RICO			
Fiscal Year ending June 30th	Imports	Exports	SUGAR		COFFEE	
	dollars	dollars	Tons	Dollars	Pounds	Dollars
1901	8,918,136	8,583,967	68,909	4,715,611	12,157,240	1,678,765
1905	16,536,259	18,709,565	135,663	11,925,804	16,849,739	2,141,019
1910	30,634,855	37,960,219	284,522	23,545,922	45,209,792	5,669,602
1915	33,884,296	49,356,907	294,475	27,278,754	51,125,620	7,082,791
1920	96,388,534	150,811,449	419,388	98,923,750	32,776,754	9,034,028
1922	64,175,149	72,172,571	469,889	40,820,333	23,402,127	4,316,859

Development of the Port of San Juan

By G. Aldea Nazario,

Historian and Newspaper Writer.

By official order, the capital of Porto Rico was moved in 1521 from Caparra on the main island, across the Bay to a small adjacent island, and there, in a spot which afforded a safe harbor and greater facilities for its defense, the city of San Juan Bautista de Puerto Rico, as it was then called, was started, which is the city of San Juan of today.

Beginnings of the Survey of the Port. Defending the port was more important in those early days than developing its harbor, but by 1863 the latter project occupied the attention of the officials. At that time the first actual survey of the needs and conditions of the port was made, and a comprehensive plan of the bay was issued by the Hydrographic Commission.

In 1882 there was founded a Board of Works of the Port, an almost autonomic institution, and up to that time the expense of the repairs of the docks had been paid by the Section of Public Works of the Government. At that time, too, the then called "Dock of the West," now the Línea Férrea del Oeste, Inc., was built.

In 1887, on her entire sea coast, San Juan had few docks, they being—the dock of the port the pier for schooners, and the small landing places of the arsenal, called "Pantalón," where the launch of the Arsenal landed, and near which the ships of the Hydrographic Commission cast anchor.

The coal house of the Arsenal also had a small pier, as did the "Compañía Puertorri-

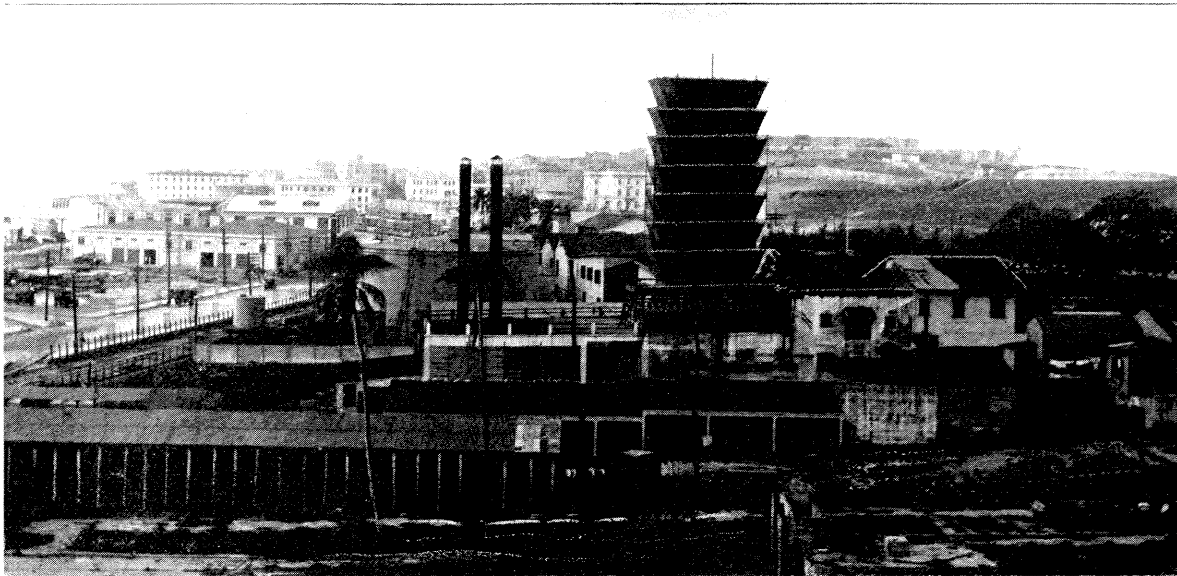
queña of the Antillian." In Cataño at the southern part of the bay, the Valdés concern had a pier.

Port Improvements. The work of building docks and piers in San Juan bay was strongly accelerated from 1887, and the up-keep and improvement of existing ones was also attended to, as was the placing of channel buoys and the drainage of channels of the San Juan sewerage system also entrusted to the Board of Works of the Port.

An efficient dredger called "España" was secured and the tug boats "Borinquen" and "Joaquín" were bought. In the "Puntilla" on the site of the old "Santo Toribio" fortifications, donated by the "Ramo de Guerra," shops and warehouses were built, a buoy depot constructed and a small pier for the landing of supply and tugboats was built.

From 1887 to 1894 the following work was done in accordance with the plan issued June 30, 1887. The total volume of the material dredged, 517,129 cubic meters, divided as follows: From the port 100,911 cubic meters, from the western part of the Marina, between Santa Catalina and Puntilla, 106,311 cubic meters, between the warehouses of the Puertorriqueña pier and Coal Island, 132,808, from the "Charco de las Brujas," between the Coal Island and Portel Island, where the San Antonio dock is at present, 176,999 cubic meters.

Great Changes Since 1887. Since 1887 the southern and eastern parts of the Marina have experienced great changes. The first covered



HARBOR DEVELOPMENT OF GREATER SAN JUAN.

shed for warehouse use was built of wood at the southwest of the pier of the west, and in 1893-94 the warehousing capacity was amplified by another new structure at the northern part, the idea being to afford proper protection for the storage of imported goods.

On the made land of the mole, at the south of San Francisco de Paula, gained by the dredging work and near where at present stands the large tobacco factory, a Belgian iron shed was built, which afforded the city with proper storage facilities. This shed is now owned by the American Railroad Company of Porto Rico.

Under the Spanish Board of the Work of the Port, the bay was dredged so as to give a depth of water of nine meters over the sand bank of the "Tablazo," of the "Puntilla," of the "Yufri," and that part of the "Punta Larga."

The entrance channel of the harbor was dredged and marked out by buoys, and in May, 1891, a whistling buoy was installed in the channel entrance in front of El Morro. In June, 1892, a buoy of special model was installed in front of the battery of "San Fernando" and parallel to the first mentioned buoy, and conical buoys were placed marking the entire ship channel, which had been dredged to a depth of nine meters. In front

of all the docks, from the Arsenal to the railroad station, a depth of seven meters was dredged, thus enabling vessels to land at places where prior to 1887 there was but a depth of four, six or seven meters.

The change of sovereignty stopped the work of the Board of Works of the Port, but the work they had done furnished the foundation of the present development. Further development of the Marina by the dredging of San Juan Bay was not seriously considered by the Department of Military Engineers in 1906.

A Very Important Development. The Board of Works of the Port was dissolved by General Henry on February 15, 1899, and Captain A. S. Snow, U. S. N., was appointed as Supervisor of port work, Commander E. A. Ross, Chief Engineer of the Army, being detailed as Director of the Work.

First Pier Built by a Private Concern. In 1899 the Secretary of War issued an annulable franchise in favor of the New York and Porto Rico Steamship Company for the construction of pier No. 1, a wooden breakwater pier for commercial purposes, this being the first wharf of a private concern ever built in San Juan.

The people of Porto Rico and the United States reserved the right to purchase that pier at any time, in case it should be needed for

public use, for its cost price, less proper depreciation for wear and tear.

In February, 1900, this franchise was extended so as to afford the company forty additional feet, and in November of that year the wharf and pier were built, but the following year it was burned. Soon after that fire this pier was rebuilt with steel and cement.

The Second Pier Built With Private Capital.

The second pier constructed with private capital was planned in 1906 by virtue of a franchise granted to the "Insular Dock Company," and finished in 1908.

The Law of Ports and Rivers Approved.

In 1899 Congress approved the law of ports and rivers, an agreement having been made regarding San Juan bay and its docks, this agreement establishing the provisional line of moles along the coast, and the corresponding reservations of ground for the War Department, the whole Marina District, the Arsenal and the Princess Walk being made a Naval Reserve, to be used for a Naval Station in San Juan. In addition, eighty acres in Puerta de Tierra, from the batteries of the "Abanico" to the road and the "Charco de las Brujas" (Witches' Basin) and the "Island of the Marshes," was devoted to naval purposes.

The Chief of the Bureau of Docks and Arsenals of the United States, in his report in 1900 to the Secretary of the Navy, advised the extending of the area of the Naval Station in San Juan, so as to embrace the Penitentiary and the neighboring property, thus covering the whole Marina District. The Insular Legislature in 1901 passed a bill as to the above matters, and ceded Culebra Island for naval purposes.

Blowing Up the Ships Which Had Been Sunk in the Channel. In October, 1899, Captain W. R. Judson, of the Engineers of the Army, submitted to the Secretary of War two alternative projects as to the lines of the port of San Juan. He advised to raise or to blow up the sunken merchant ships "Cristóbal Colón" and "Manuela," which blocked in part the entrance of the port channel at the Morro outlet. Ships which had been sunk by the Spaniards in 1898 to impede the entrance of the American warships. The original entrance

of the channel of 1200 feet thus being reduced to 400 feet.

The War Department blew them up and later appropriated \$750,000 to dredge the entrance channel and part of the bay.

The Channel Improved. The channel was improved, and though the Spanish Board of the Works of the Port had placed it to a depth of nine meters, and in some places off the Morro it was more than eleven and twelve meters in 1894, nevertheless part of the anchoring ground was not more than seven and eight meters deep.

The present bulkhead and pier head line, which had been initiated in June, 1899, by the Navy, was definitely fixed in 1912-13.

Agreement Reached As to the Limits of the Naval Reservation.

In November, 1906, a commission composed of Captain Samuel C. Lemly and the Attorney General of Porto Rico was named to make an agreement regarding the existing controversy between the Navy Department and the people of Porto Rico as to the limits of the naval reserve grounds, said Commission finally drawing up an agreement to devote the Marina district to a Naval Station, and the Insular Government acquired the properties of the naval reserve of Puerta de Tierra in the part of the highway south of the Military Reserve, as well as important marshes at the south of Puerta de Tierra at the San Antonio Channel. According to that agreement of 1906, also, the Large Island of the "Manglar" remained as Naval Reserve.

Then Came Extensive Improvements. The American Railroad Company of Porto Rico obtained in October, 1901, of the Executive Council, a franchise for the construction of Pier No. 5, which was built of iron and finished in August, 1913.

In 1912 the present Board of the Port of San Juan was created, and since then the work of port improvements has been greatly furthered.

The New York and Porto Rico Steamship Company constructed the pier and warehouses of the "San Antonio Dock Company," between the Portell and the "Pozo de las Brujas," in front of the San Antonio Channel, finishing it in 1912.

In 1916 the Porto Rico Coal Company built a pier and coal house at the east of the San Antonio Dock. Mr. Félix Benítez Rexach, from 1920 to 1922, constructed pier No. 6, with an area of 232,000 square feet, and the San Juan Dock Company is at present building a mole and shed between the Government mole and pier No. 6.

Extension of the Mole. The Board of the Works of the Port, created by the Law of March 7, 1912, which issued bonds for \$500,000, at 4% for 25 years, and another issue of \$100,000 in December, 1913, has constructed a wharf from Pier No. 1 to Pier No. 6 in a line extension of 2,350 feet, in accordance with the general plan of works which is to be carried out from pier No. 1 to the San Antonio Bridge, along the channel and at the southern part of Puerta de Tierra. Said project comprises a bulkhead and a road, which is to join with the new one at the south of Miramar, Santurce. That being the reason that the War Department has been engaged for some time filling up the marshy land of the "Isla Grande" and of the southern part of Puerta de Tierra, along the San Antonio Channel; the work of filling in the marshes and the dredging of the channel and southern landing place being now far advanced.

The Insular Board of Works of the Port Also Busy. The Board of the Works of the Port of San Juan in the meanwhile, with Insular funds and through contracts with Messrs. P. J. Carlin Construction Company, of New York, constructed the mole at a cost of \$345,841, it having an extension of 2,350 feet; said Board also built an iron shed 840 feet long through contract with Mr. Jesús Benítez; roads and transversal streets along the mole with a total of 4,760 feet and a surface of 22,580 square yards, with asphalt pavement being finished in 1917.

The total area of wharfage constructed by the Board is 118,900 square feet, including the 32,000 square feet devoted to the shed.

Now 380,500 Square Feet of Piers Available.

At present the total area of piers available in the port of San Juan is 380,500 square feet, of which 210,800 square feet are covered.

Good Railroad Connections. All the piers of

the mole and the present six private piers are connected with the railroad, which runs its cars into the sheds and loads freight directly for the Island.

Tonnage of the Port in 1919-20 and More Docking Space Needed. In 1919-20 San Juan had the 37.4% of the total tonnage of freight imported by the Island. In spite of the extension of the piers for unloading of ships, the lighterage system is yet used in San Juan, as it also is for taking supplies of water and coal.

A New Pier for Lighthouse Service. The island's Light House Service is now building a pier at the Puntilla del Arsenal to replace the two old wooden ones, said pier to be of concrete piles similar to those of Pier No. 6 and to cost \$65,000. It will be the landing place of the vessels of the buoys and lighthouse work of the Federal Government.

The Funds of the Board of the Port. The Board of the Port had receipts amounting to \$72,547 in 1920, which represented an increase over those of the former year. Finally, on January 31, 1923, said Board had a balance in safe of \$10,162 of the fund for the improvement of the port and \$164,192 in the sinking fund for interest on the debt of \$600,000 of bonds which had been sold since 1913.

Large Appropriations by the U. S. Congress. In 1912, through the activities of Sánchez Morales, the late de Diego and Roberto H. Todd, the Congress of the United States made an appropriation of \$750,000 for the work of dredging and reclaiming, and in the following budgets important sums have also been assigned, \$200,000 being appropriated in 1922-23, and \$300,000 in 1923-24.

Dredging Done. In front of the mole a depth of 24 feet was dredged, and at present 30 feet depth is being made to the landing place facing pier No. 5, and that of San Antonio. In the dredging zone in front of the eastern piers and the San Antonio Channel, 1,083,000 cubic yards will be removed by the dredger.

The San Juan bay had a surface of 84.4 acres dredged in 1920 to a depth of 30 feet, and 18 acres to a depth of 25 feet; the entrance channel being 500 feet wide and 30 feet deep.

The Federal Government in 1911 finished the dredging of the entrance channel, it now being continued to the southern landing place.

The "Isla Grande o del Manglar" Improvements. There is a petition for a franchise pending solution by the Public Service Commission to exploit Grand Island, or "Island of the Marshes," by establishing there a 10,000-ton dry-dock, one one of 5,000 tons, two ship yards, repair shops and dwellings for workers. Said petition is made by a syndicate formed by Mr. Félix Benítez Rexach, the enterprising engineer who has so fully demonstrated his capability in the work of roads and bridges, the mole of the Insular Government, pier No. 6, and other developments of general interest which he has carried out.

The Federal Government Appropriation for Dredging. The Federal Government is carry-

ing out the work of dredging as authorized on August 8, 1917, by means of an appropriation of \$400,000, of which the people of Porto Rico will refund 70%; but in no case will they have to refund more than \$1,200,000 for the filled-in land it will own after the work which is being done in Puerta de Tierra and in the southern marshes is finished. The area which will be dredged is 260 acres. Up to June 30, 1921, twenty-seven acres had been dredged, which represents 600,000 cubic yards of material removed. The San Antonio Channel will have a width of 300 feet and a depth of 30 feet.

An Up-to-date Port. The port of San Juan is therefore being improved to meet the necessities of the commerce which is hers, due to geographical location, United States sovereignty and the Panama Canal.

The Postal Service in Porto Rico

By William R. Ryan,

Veteran of the Spanish-American War. Post Office Inspector—United States
Mail Service.

Introduction of the American System. There is probably no more striking example of the progress made in Porto Rico under American administration than that afforded by the postal service. One of the first civil commissions to begin work after the transfer of the island to the United States was that of the postal service. This commission was made up of experts who inaugurated a service based upon that of the United States and which was conducted under a department organized for that purpose and known as the "Department of Posts." The commission arranged for sites for post offices, appointed and installed postmasters and employees, established mail routes, and applied the United States Postal Laws and Regulations with such modifications as were made necessary by the conditions then existing. In a remarkably short time the service was functioning.

There is no doubt no other public service which comes so near reaching all of the people, or in which the people demand so great

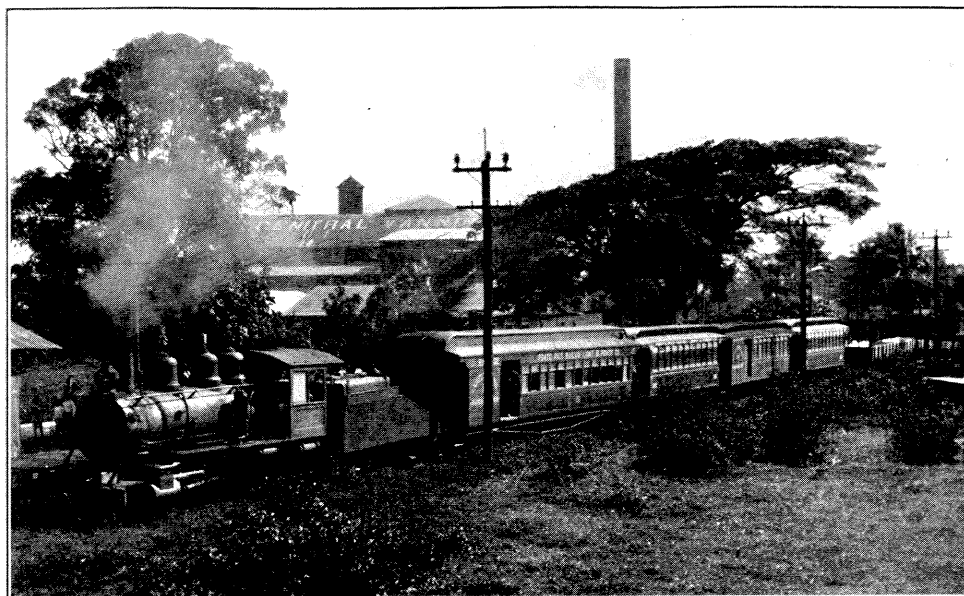
a degree of efficiency; and there is no other public service the success of which depends to so great an extent upon the intelligent cooperation of its patrons. Its efficiency increased from year to year as the people became educated to the changed conditions and learned that its only function was to serve them impartially. The various features of the service were eventually absorbed by the bureaus having charge of similar features on the continent, and the Department was dissolved.

Postal Rates. This postal service is now part and parcel of the Postal Service of the United States, the heads of the various divisions reporting direct to Washington. At the present moment every official and every employee of the postal establishment in Porto Rico is a native Porto Rican, with the exception of the Post Office Inspector and the Chief Clerk, Railway Mail Service, these latter offices being filled by continental Americans who secured their training in continental United States.

It is not unusual for a visitor to Porto Rico to express surprise when informed that he can mail letters to continental United States at the 2-cent rate and parcel post at the domestic zone rate. It is a common error of concerns and individuals in the states to place postage on letters for Porto Rico at the foreign rate

on Saturday, but this service is not regular and these boats are slow.

Perhaps here is a good place to insert some facts concerning the time taken to receive an answer from Porto Rico to a letter mailed in the United States. A letter for Porto Rico mailed in Chicago, for example, must be placed



SERVICIO FERROVIARIO DE RÍO PIEDRAS A CAGUAS.—RAILWAY SERVICE FROM RÍO PIEDRAS TO CAGUAS.

of 5 cents an ounce, or to affix a customs declaration to parcels consigned there.

Mail Service with the United States. It is a common error, too, for those on the mainland to fail to take in consideration the fact that we are fourteen hundred nautical miles from New York as the crow flies, that ships transporting mail between the mainland and Porto Rico require not less than four days to make the trip, each way and that this mail service is not daily. We have regular mail service with the mainland once a week, the boats leaving Pier 35, Brooklyn, at 12 o'clock noon, Saturdays. One of the three boats in this service, arrives at San Juan early Wednesday morning and leaves at noon Thursday of the following week. The other two boats reach San Juan, Thursday and leave on return trip at 5 p. m. Wednesday of the following week. We frequently dispatch a mail from San Juan for New York or other eastern ports

in the post office in time to catch the early morning train for New York, Friday, if it is to reach the weekly steamer leaving Brooklyn at noon Saturday, or if mailed in New York it should be in the post office by 10 a. m. Saturday. Ordinarily it will then reach San Juan, Thursday, and it must be remembered that return boats leave San Juan at 5 p. m. Wednesday, as a rule. A reply to such a letter cannot, therefore, reach New York until Monday of the third week following its mailing. It can be readily seen that a request contained in a letter from the mainland to a party in Porto Rico for a reply thereto within five days, or ten days, or even twenty days, is a request for the impossible, unless the letter should happen to catch the fast boat, and even then an answer could not be received, even to a letter mailed in New York Saturday morning, within less than nine days.

Intra-Island Service. The Intra-island ser-

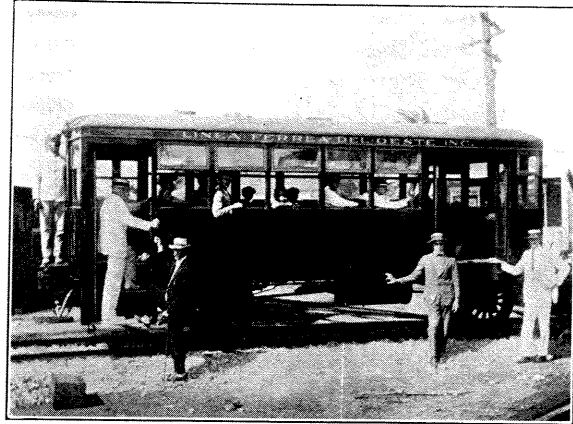
vice is daily and double daily. Letters mailed at San Juan either morning or evening, reach Mayagüez within eight hours and Ponce within ten hours, and vice versa. There are 92 post-offices and six postal stations, one railway post office and 29 star routes, with approximately 350 officers and employees.

Mail Handled. Mail handled in and out of San Juan, the principal port, will aggregate approximately 260,000 bags per year. A large part of this consists of merchandise from Continental United States and this feature will grow by leaps and bounds as enterprising merchants in the United States come to a realization of the market that exists for their wares in Porto Rico.

Cost and Revenue. Figures as to the cost of the postal service in Porto Rico and the revenue therefrom are not available at this writing, but it is probable that these two items will practically balance. It is not believed that the revenue will exceed the cost, even at the present time, and if it should it will take many years to wipe out the deficit caused by the excess of cost over revenue, incident to the reorganization of the service to conform to American standards.

Efficiency. The postal service of Porto Rico

is conducted under the same general heads and upon exactly the same basis as is the service in New York or California, and compares



SERVICIO FERROVIARIO DE CATAÑO A BAYAMÓN.
RAILWAY SERVICE BETWEEN CATAÑO AND BAYAMÓN.

favorably with that of any state in the Union. This is the more remarkable when it is considered that the employees must qualify in both English and Spanish, and should be ample refutation of the time-worn allegation that efficiency in the exercise of mind and body in the tropics is impossible.

Telegraph, Telephone and Cable Services

By Manuel Rodríguez Braschi,

Superintendent, Insular Telegraph

TELEGRAPH SERVICE

First Telegraph Lines: Porto Rico can be proud of the fact that the inventor of the recording telegraph, Mr. Samuel F. B. Morse, was a guest of this island, and that some of his first trials were made here in the town of Arroyo. The first telegraph line, about three miles in length, was built by Mr. Morse, for his private use, in 1849, from Arroyo to the Hacienda "La Enriqueta". It was abandoned after being operated for several years.

The idea of establishing telegraphic communications between all the towns in the Island was first conceived by the Spanish Government in 1864, but though several plans

for the installation were approved in the years 1864 and 1866, not until the year 1869 was the work started with the construction of the first telegraph line between San Juan and Arecibo, some 95 km. The construction of lines following in accordance with the general plan already approved and which was completed in 1870.

In the year 1886, by a Royal Decree of the Spanish Crown, dated July 29, 1884, the fusion of the Postal and Telegraph Systems was authorized, and since then, both services were conducted as a single one called "Department of Communications".

Lines in Operation in 1898: In 1898, at the time of the American Occupation, the telegraph system in Porto Rico extended thruout most of the towns of the Island, connecting forty one stations. The aggregate length of the various lines was 1240.5 kilometers. The Island being at that time divided into four telegraph districts as follows:

San Juan District: Offices in the Fortaleza Building, Semáforo, Lazareto, Río Piedras, Caguas, Bayamón, Vega Baja, Manatí, Ciales, Arecibo and Utuado.

Ponce District: With stations in Ponce, Ponce Playa, Juana Díaz, Coamo, Aibonito, Cayey, Guayama, Salinas, Santa Isabel, Adjuntas and Guayanilla.

Mayagüez District: With stations at Mayagüez Playa, Añasco, Aguadilla, Camuy, Lares, San Sebastián, Cabo Rojo, San Germán and Yauco.

Humacao District: With stations at Naguabo, Fajardo, Juncos, San Lorenzo, Yabucoa, Maunabo and Arroyo.

Each district was in charge of the chief of the principal office. The Director of Communications, with headquarters in San Juan being the chief of the whole service.

The schedule of rates charged was twenty cents for an ordinary commercial telegram consisting of 15 words or less and one cent for each additional word. When the telegram was of an urgent character, and the sender requested immediate transmission, three times the ordinary fee was collected.

In the case of multiple messages, the ordinary rate was charged for the first one, and ten cents extra for each additional telegram. Press telegrams had a discount of 50 per cent over the ordinary rate.

During the last year of the Spanish Government in Porto Rico there were 41 telegraph offices, and the total value of the telegraph service handled amounted to \$102,063.29.

The Telegraph System Under the American Military Government: When the American Army took charge of the Island in 1898, the "Signal Corps" took the telegraph system under its care and organized it under the Military Government.

In August 1899, a very heavy cyclone swept

over the Island and destroyed almost completely all the telegraph lines. The "Signal Corps" started immediately the reconstruction of some of the most important lines and two months later nine lines were re-established.

In February 1901, the telegraph system was transferred to the Insular Government, and in accordance with an order from the War Department, it was placed under the Department of the Interior. The Bureau of Insular Telegraph was then established under the direction of a Superintendent. The valuation of the system at that time amounted to \$44,000. The valuation today is \$160,000.00.

When the transfer was made there were only eight telegraph lines in operation with 614 kilometers of wire, as follows: A two-wire line from San Juan to Ponce strung along the Military road; a line from San Juan to Ponce, via Mayagüez; a line from San Juan to Ponce, via Fajardo and Humacao, a line from Ponce to Adjuntas; another from Manatí to Ciales, one from Aibonito to Barros; one from Mayagüez to Las Marías and one from Aguadilla to Lares. These lines connected ten telegraph offices in the following towns: Aibonito, Central Aguirre, Caguas, Cayey, Fajardo, Ponce, Humacao, Playa Mayagüez, Playa Ponce and San Juan.

The volume of the business handled by the telegraph system in the year 1900, the last one of operation of the Military Government was as follows:

	Number	Value
Commercial messages..	65,283	\$18,845.79
Free messages	49,669	27,217.83
	<hr/>	<hr/>
Total	114,952	\$46,063.62
The expenditures were		70,238.93

Excess expenditures over incomes \$24,175.31

At that time the following officers and employees of the Insular Government had free use of the telegraph: the Officers of the United States Navy and Army in Porto Rico; the Governor of Porto Rico; the Secretary of Porto Rico; the Attorney General; the Auditor; the Treasurer and the employees and agents of the Treasury Department; the Com-

missioner of the Interior, and the employees of the public works; the Commissioner of Education; the Superior Board of Health and its employees; the Charity Board and its employees; the Judges of the Supreme Court; the Marshall of the Supreme Court, the Judges and the Prosecuting Attorneys of the District Courts; the Insular Police; the Director of Prisons; the Post Office Department; the United States District Courts; the Police Judges; the Superintendent of Elections; and the members of the Porto Rico Legislative Assembly.

The Telegraph System Under the Insular Government: Since the Insular Government took charge of the telegraph System, it has been extended to nearly every town in the Island and many new lines have been constructed. There are at present 20 telegraph lines with 1471.30 kilometers of wire and 55 telegraph offices. In the 22 remaining towns of the Island, the Porto Rico Telephone Company does the telegraph service for the Insular Government.

The yearly business handled today amounts to approximately:

Commercial messages...	300,000	\$130,000.00
Free messages.....	20,000	24,000.00
Total	320,000	\$154,000.00

Telegraph Rates: The schedule of rates charged is the following: Thirty cents for an ordinary commercial telegram consisting of ten words or less, and two cents for each additional word. For multiple telegrams fifteen cents for a message of ten words or less, and one cent for each additional word. For night letter telegrams, thirty cents for a message of fifty words or less and one cent for each additional word. For Government messages, thirteen cents for the first ten words and one cent for each additional word. For press messages, ten cents for the first ten words and one cent for each additional word.

Free service is only given to the Governor of Porto Rico, the members of the Legislative Assembly on official business or matters of public interest, and to the officers of the United States Army and Navy.

The following table will show the growth

of the insular telegraph system from 1903 to 1919:

Year	No. of all kinds of telegrams	Value of all kinds of telegrams
1903- 4.....	287,386	\$49,114.07
1904- 5.....	303,287	68,394.78
1905- 6.....	310,439	63,278.07
1906- 7.....	208,802	63,741.65
1907- 8.....	216,489	57,498.21
1909-10.....	241,846	68,820.64
1910-11.....	227,683	77,148.84
1911-12.....	233,983	90,422.93
1912-13.....	255,060	94,994.67
1913-14.....	225,240	85,676.75
1914-15.....	196,064	83,429.86
1915-16.....	207,521	76,312.61
1916-17.....	189,575	93,972.45
1917-18.....	252,920	113,172.96
1918-19.....	269,660	126,283.14

CABLE CONNECTIONS

Cable Companies Operating in the Island:

Porto Rico today has more cable connections and better facilities than any other island of the West Indies, at present there being three companies operating in the island: The West India & Panama Telegraph Cable Company with offices in San Juan and Playa Ponce; The All America Cable Co. with offices in San Juan and Playa Ponce; and the Compaigne Francaise des Cables Telegraphiques, with offices in San Juan and Playa Mayagüez, these three different connections assuring rapid and efficient service with all the American countries and other parts of the world.

Progress Made in the Last Ten Years: The progress made in this respect during the last ten years is worth mentioning. At the time of the American Occupation in 1898, only one cable company operated in the Island. That was the West India & Panama Telegraph Cable Company, which started its business in Porto Rico in the year 1870, connecting two cables in this island; one from Saint Thomas to San Juan, and another one from Christiansted, St. Croix to Ponce. Later they made the connection of San Juan, with Kingston, Jamaica and from Kingston to Ponce. This later connection being made in 1873. The

cable business to the United States and other parts of the world was then forwarded via Kingston, Jamaica.

In this way, the West India & Panama Telegraph Cable Company had the monopoly of the cable business in Porto Rico until the year 1913, when the Compaigne Francaise des Cables Telegraphiques, was also authorized to connect in San Juan its cable from Haití, thus establishing a direct communication from San Juan to North America. Later on, the same company was authorized to connect in Mayagüez its cable from Santo Domingo City and from Mayagüez to San Juan, by means of a telegraph land line, and to establish a direct communication with the island of Curaçao and the Republic of Venezuela, and with other parts of South America.

In the year 1921 another company, the All America Cable Co., was authorized to land in Ponce its cable from Guantánamo, Cuba and to connect it with San Juan, by means of a telegraph land line, thus establishing the most direct communication from Porto Rico to North and Central America.

Cable Rates: As a consequence of the competition aroused by the installation of the three above mentioned companies, cable rates from Porto Rico to all parts of the world, have been greatly reduced, as compared with those charged when there was only one or two companies operating in the island.

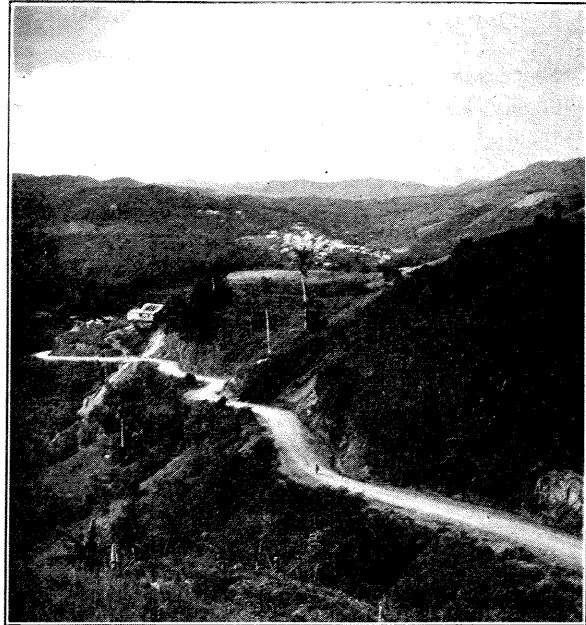
The cable rate to New York, for example, which for many years was 75 cents per word, has been reduced to 40 cents per word.

TELEPHONE SERVICE

First Telephone Lines: The idea of establishing the telephone service in Porto Rico dates from the year 1871.

The Royal Decree of the Spanish Crown, dated May 12, 1888, provided for the establishment of the Government telephone lines. In 1890 provisions were made for the granting of concessions to individuals and companies for the establishing of telephone lines within the Municipal Districts for public use but limiting the radius to ten kilometers from the Central Exchange.

The first telephone exchange, for strictly



BARRANQUITAS, CUNA DE PATRIOTAS.
THE TELEGRAPH AND TELEPHONE PUT THE HEART OF THE
MOUNTAINS IN INSTANT TOUCH WITH THE
HEART OF SAN JUAN.

official use, was established in Porto Rico in the year 1893, and the central office was installed in the office of the Governor General. This exchange was composed of only ten lines connecting the military posts and the Government offices. A little later, that same year, two official lines were established in Ponce for the use of the Fire Department; and one public line from San Juan to Santurce.

In accordance with the Decree of 1890, the following concessions were granted in the year 1897 for public telephone service: to Rafael Fabián and Antonio Ahumada for San Juan; to Alfredo B. Casals for Ponce (this concession was transferred shortly after granted to "Compañía Anónima de Redes Telefónicas") and to Rafael Fabián for Mayagüez. All these concessions were to expire in 1917, in which time they would become the property of the Government of Porto Rico without remuneration.

Exchanges in Operation in 1898: So, that, at the time of the American Occupation in 1898, telephone exchanges for local service only, were in operation in San Juan, Ponce and Mayagüez. No change was made in the telephone service during the Military Govern-

ment, but, as soon as the Civil Government was established in the island, several persons conceived the idea of establishing a long distance telephone service and to connect the several local plants in operation.

Franchises Granted Since 1901: The first franchise granted for that purpose was in the year 1901 to Pedro Juan Rosaly, authorizing him to do a local and long distance service in the whole island, but it was not approved by the President of the United States. Another franchise was then granted in 1902 to Benjamin H. Horton, for the same purpose of that granted to Pedro Juan Rosaly, which was later transferred to the Porto Rico General Telephone Company, but it was revoked because no work was done. Later, in 1905 and 1906, other franchises were granted to Pedro Juan Rosaly and Sosthenes Behn to establish long distance telephone service, between Arroyo and Hormigueros, and intermediate towns on the south side, and between Carolina and Hormigueros on the north side respectively.

Early Companies and First Telephone Line of the Insular Government: At the same time, two telephone companies were organized, the South Porto Rico Telephone Company, and the Porto Rico General Telephone Company to which the above named franchises and others previously granted to individuals were transferred.

By this time, the Insular Government also decided to do a local and long distance telephone service between San Juan and Ponce and other towns in the center of the island, and in the year 1907, the first telephone line of the Insular Telegraph was completed between those two cities, and the first local plant was built at Caguas.

Organization of the Porto Rico Telephone Company: Several years after, in 1914, the Porto Rico Telephone Company, was organized. This company acquired all the properties and rights of the other two companies and established a homogeneous telephone system in the island, extending the service to all the towns in the island with the exception of those controlled by the Insular Government.

At its inception, about 1914, the Porto Rico Telephone Company had 1716 subscribers of which 750 were in San Juan and 438 in Santurce, but from that date to 1917, the growth of the new telephone service was very rapid, developing along with various other industries of the island. During the years 1917, 1918 and 1919, because of the war with its accompanying scarcity of material and personnel, the Porto Rico Telephone Company, was seriously handicapped in its growth.

Growth of the Porto Rico Telephone Company: However, since 1919, the company has again increased its plant and subscribers and today Porto Rico has a greater telephone development than any other Latin American country of its size. It is interesting to note the following table which shows the growth since 1916 in the number of telephones which the company (not including the Insular Telegraph System) has in service:

	Number of telephones
December, 1916.....	5018
“ 1917.....	5380
“ 1918.....	5386
“ 1919.....	6594
“ 1920.....	7415
“ 1921.....	8542
July, 1922.....	9174

At the present time there is being handled throughout the system of the company over 60,000 local messages per day, that is approximately seven calls per day for each and every telephone. This average is high compared with the use of the telephone in the United States and shows that the people of Porto Rico make great use of the telephone. The company also handles approximately 1,400 long distance calls per day, that is over 600,000 calls per year. It operates seventy offices throughout the island in addition to eight toll pay stations. It has 26 Private Branch Exchanges connected to its system and provides telephone communication with 40 sugar centrals. The company has used approximately 21,000 poles in its system and has nearly 5,000 miles of wire in service. In San Juan and Santurce the Company has at this time 4,600

subscribers, which is equivalent to one telephone to each 16 persons residing in these centers. This percentage of saturation is greater than in any Latin American city, being even greater than the city of Havana which has the next largest telephone development in Latin America. The development in some of the largest Latin American cities, based principally on information furnished by the American Telephone and Telegraph Company, Statistic Department, shows the following:

	Per cent of saturation
San Juan, Porto Rico.....	6.16%
Havana, Cuba.....	5.90%
Caracas, Venezuela	3.08%
Mexico City, Mexico.....	3.07%
Montevideo.....	3.04%
Buenos Aires.....	3.03%
Rio de Janeiro.....	2.04%

The Insular Government Lines: The Insular Government controls the telephone service in the following towns: Caguas, Cayey, Aibonito, Cidra, San Lorenzo, Aguas Buenas, Gurabo, Juncos, Las Piedras, Guaynabo, Corozal and Loíza Aldea. The total number of subscribers is 505, and about 75,000 long distance calls are handled per year. According to a

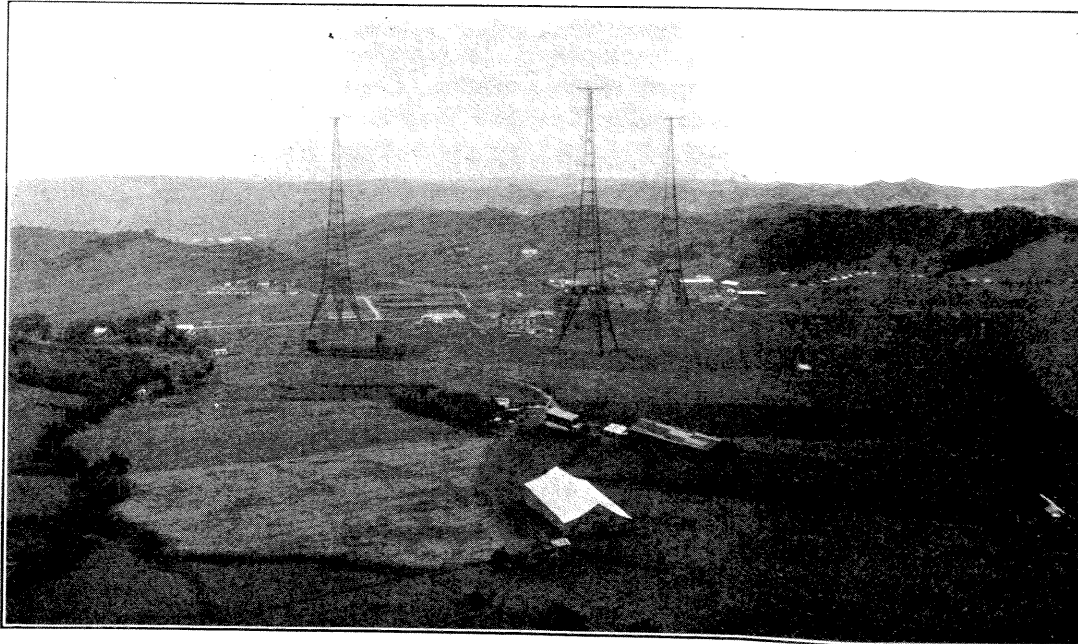
provision of the franchise of the Company, its long distance lines connect with those of the Government in several places reached by both services.

Porto Rico has today a first class and up-to-date telephone service. Nearly every town in the island has a local telephone plant and all of them are connected to the Capital by good long distance lines.

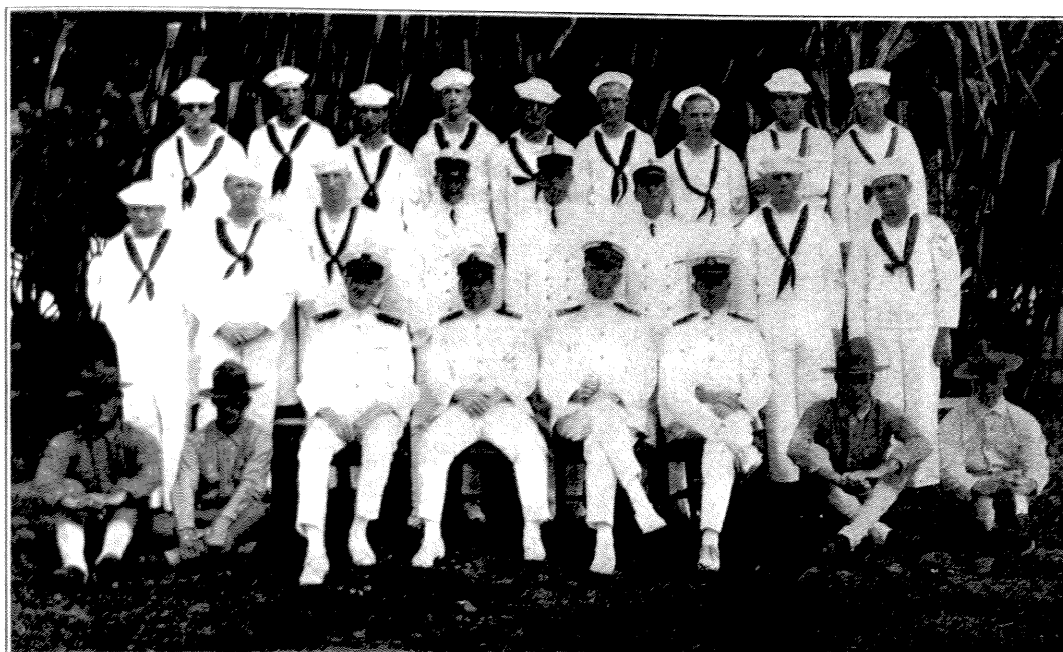
Several years ago the South Porto Rico Sugar Company installed a wireless station at its sugar central at Ensenada, Porto Rico, for the sole purpose of handling its own private business with "La Romana" Santo Domingo. Later on, this station was opened for general public business with Santo Domingo, Haiti, Venezuela, Saint Martin and other places.

At the present time, the Insular Government is installing two small stations, one at Ceiba and the other one at Vieques, to handle business with ships at sea and other surrounding islands.

We may say that the wireless telegraph service is growing rapidly in Porto Rico and it is expected that there will be other public stations in the very near future to do business with other parts of the world



UNA DE LAS ESTACIONES INALÁMBRICAS MÁS GRANDES DEL MUNDO.
SIX HUNDRED FEET TOWERS OF THE NAVAL WIRELESS PLANT, CAYEY.



PERSONAL DEL SERVICIO INALÁMBRICO NAVAL.
SAN JUAN U. S. N. WIRELESS FORCE. LIEUTENANT HULL, SECOND FROM LEFT, SEATED.

U. S. A. Naval Communication Service

Naval Radio Station NAU

By Lieut. Carl Townsend Hull, U. S. N.

and

Francis W. Hoadley,

Co-Editor, "The Book of Porto Rico."

Lieut. Hull was appointed to the U. S. Naval Academy, Annapolis, from New York State, July 2, 1909, and graduated with the class of 1913, and was in command of Submarine S-1 during the World's War.

Like all full grown projects, the U. S. Naval Radio Service at Porto Rico had a small and modest beginning, but such was its value that it rapidly developed, until today it has become one of the most modern stations of the Navy, and one of the largest in the world—capable of communicating with North American, European and Asiatic stations, and also with U. S. vessels, within a radius of four thousand miles.

First Radio Installation on the Island. In December, 1903, Rear Admiral Dunlap directed that a three-kilowatt radio transmitter should be installed on a high bluff near the city of San Juan to afford communication with a similar station on the island of Culebra, and with ships at sea. This installation made use of the old

time coherer detector, the messages being indicated on a tape, and it was the first wireless installation on the island.

The reader should note these words "old time," used above, and then reflect how in the very modern art of sending messages without wire or cable lines, such has been the rapid development, that what is new today is apt to be old tomorrow, the radio art being one which is being improved daily, both by the inventions of trained men, and the lucky hits of amateur radio sharps to whom, by the way, some of the most valued improvements are due.

NAU. Today and for the last nine years, San Juan's Naval Radio call is NAU, a call even which has been changed since early days. For back in those days the calls of practically all

radio stations consisted of but two letters, just as land telegraph office calls did, and at first when the San Juan station was wanted, thru the air went the call "S A." Today the call is NAU because now all radio calls consist of three or four letters, or one numeral and two letters, the latter being the calls assigned to the almost innumerable stations of radio amateurs.

Rapid Development. Two months after the first station was installed, that is in February 1904, the Navy Department decided to install a high power radio set at San Juan, and accordingly erected three masts, each two hundred and ten feet high, also installing a 35-kilowatt "De Forest" radio set. These masts supporting the antenna in the form of three fans of fifteen wires each and three hundred feet long.

Installation of Power Plant. At the time this set was installed power was secured from the electric lighting company's plant, but it was found that whenever it was started up it caused that company so much trouble—due to voltage surges on their lines—that the Navy installed its own power plant, and by December, 1905, the San Juan set was running under its own power and giving good results.

Restricted Communication Then. This set afforded communication with Guantánamo (SI), Colón (SL) and Key West, Florida (RD), and as an indication of the development of the wireless since then, even the ambitious amateur of today who could not secure messages from greater distances than that, would not consider that he had much of a station.

Steel Towers Take the Place of Masts. In 1915 Uncle Sam decided that his hearing could be improved and a modern 30-kilowatt "Federal" Arc Transmitter was installed followed shortly by the construction of two 300 feet steel towers which were built to take the place of the three two hundred ten feet masts erected the previous year. A picture of these towers is shown here, but owing to the installation of the new Cayey station they are to be removed, the contract for the dismantling of one of them having already been let to a San Juan company.

Uncle Sam's Hearing and Reach is Improved.

The transmitter above mentioned gave excellent results, and thanks to it and the new towers communication was established with Guantánamo, Cuba and Charlestown, S. C., U. S. A., as well as with Naval ships at sea. In a year or so, however, the 30 kilowatt arc set became obsolete, as wireless apparatus in this age of constant improvement becomes so quickly, and the Navy improved that type of set. However, due to the fact that the Department had plans formulated to transfer all transmitting apparatus to the Naval Radio Station at Cayey, P. R., no steps were taken to alter or change the 30 arc set.

San Juan Station for Receiving Only. In addition to the 30 kilowatt arc set, however, for some years the San Juan station has had a Navy 5 kilowatt spark transmitter which has performed wonderful service, reliable communication being established by means of it with Santo Domingo City, R. D., Port au Prince, Haiti, and the island of St. Martins, while Navy and commercial vessels only a few hours out of New York, have little difficulty in transmitting their messages direct to the San Juan Naval Radio Station. At present, though, that station is used only as a receiving station.

The Primary Object of San Juan Station. At the San Juan Naval Radio Station expert operators, especially trained for the work, and with many years experience, stand watches in four individual receiving booths both day and night. The primary object of this station being to give the Commander in Chief of the United States fleet, the Navy and other governmental departments an efficient and rapid communication service.

Personnel and Buildings of San Juan Station.

The complement of the personnel at this, the district center station and the headquarters of the District Communication Superintendent, consists at present of four officers and thirty-one enlisted men. The officers stationed there at present being Lieutenant C. T. Hull, U. S. N., District Communication Superintendent, Lieutenant D. T. Hunter, U. S. N., Surgeon Ensign, H. A. Rigby, Paymaster and Gunner W. H. Recksiek, officer in charge of the Sta-

tion. A two-story concrete structure is used for the radio work, and besides containing the apparatus, furnishes offices for the officers and the operators. Here, too, is maintained the station sick bay fully supplied with drugs, medicines, surgical dressings, etc., with a graduate dispenser, an enlisted man, under the Navy Surgeon.

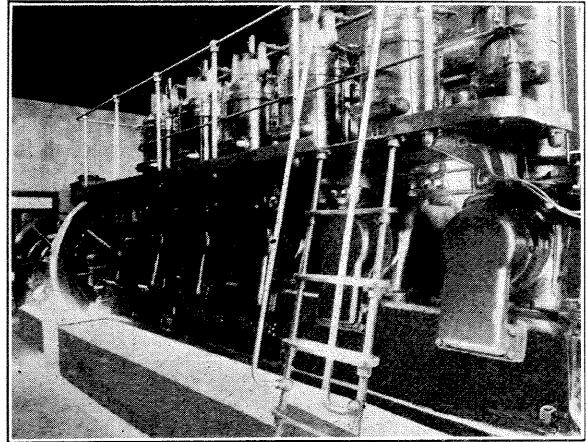
Other buildings consist of quarters for the District Communication Superintendent, the quarters of the Officer in Charge, two married operators' quarters and one bachelor's quarters. The Station is finely located on the ocean side of Carretera Central, the fine wide avenue which leads out from the old section of the city, and over which both the street cars, automobiles and other vehicles pass in order to reach the main land from the smaller island on which San Juan is located, and over which one travels in order to reach the U. S. Radio Station at Cayey.

Cayey Radio Station. This station is located in the interior of the island, near the town of Cayey, 61 kilometers from San Juan, and at a considerable higher altitude than that city.

No receiving is done at this Station, all such work being done by the San Juan Station, as previously mentioned. The Cayey Radio Station is well able to carry out the vital requirement of having all transmitting equipment available at all times, due to the fact that at it are installed three internal combustion engines and four radio sets.

Equipment. The equipment of this station consists of one 200 kilowatt arc converter, one 30 kilowatt arc converter, one two kilowatt converter and one 5 kilowatt spark transmitter. Power being supplied by the station's own power plant. Formerly its needed power was supplied by two Diesel motors of 150 H. P., but more power was needed and was provided by a 300 H. P. 6-cylinder Fairbanks-Morse engine, now in service. This motor has six cylinders of the Y type and makes 257 revolutions per minute.

Visitors to this plant are apt to express surprise at the silent running of this great motor, on the cylinder of which a silver quarter dollar can be stood on edge while the motor is at rest, then started running and stopped again



PODEROSA MÁQUINA DE 300 CABALLOS DE FUERZA, ESTACIÓN INALÁMBRICA DE CAYEY.

THE 300 H. P., 6 CYLINDER, FAIRBANKS-MORSE ENGINE, CAYEY WIRELESS STATION.

with the silver coin standing in its upright position. An interesting and rather severe test which demonstrates the quiet and freedom from vibration of this prime mover.

Three 600-Foot Towers. This station has three six hundred feet towers which support three antennae, and its equipment provides a means of constant and practically immediate touch for the different governmental branches of the island and with the head departments in Washington, as by using no outside power, it is therefore independent of line troubles.

Uncle Sam's Ears at San Juan While His Voice Comes from Cayey. As previously stated the Cayey Station does no receiving of messages. A ship or station calling San Juan being answered by the Cayey station's transmitters. The actual words, however, are sent by an operator at San Juan by means of remote control lines, the San Juan operators being able to copy different stations at the same time while another operator is sending.

Personnel and Buildings. The complement of the personnel at the Cayey station consists of one officer and twenty-four enlisted men, Gunner Neil Avery being officer in charge of the Cayey Station at present.

At this station in addition to the building used for the power house, offices, etc., living quarters are provided for the officer in charge, for three married operators as well as a building for bachelors' quarters.

Time, Trouble and Expense All Decreased. Such is the Naval Communication service of the United States at Porto Rico, a service which so clearly proves the old saying that "time changes all things," a saying which is especially applicable to the art of sending and receiving messages across thousands of miles either of land or sea, without wires, and by

so doing eliminating the factor of distance, and a vast amount of trouble and expense for the construction of overhead wires or cables under the oceans.

Porto Rico was discovered by Columbus after great difficulty, but, thanks to the discovery of the wireless, today man's messages reach that island promptly and with slight trouble.

"Amateur Radio" in Porto Rico

By Luis Rexach Disdier,

Financier. Owner of the Radio Station No. 401.

Though small geographically, Porto Rico has always been quick to grasp modern progress and to co-operate in the development of her institutions.

Though not the first in radio she has not been left behind in the furtherance of the new and marvellous means of communication devised by Marconi.

Early Experiments. Young Joaquín Agusty was her first amateur in wireless telegraphy, having begun his studies in 1912. In spite of the difficulties and toil which he experienced in a country where he was alone in the work, young Agusty persevered in his experiments and investigations, until he finally established the first radio-telegraphic station for amateurs in Porto Rico; a station built thru great sacrifice and effort. In 1920 other amateurs appeared in the Island, and in 1921 Mr. J. Piñero (4KT) built in Carolina the first radio-telephonic station.

The "Porto Rico Radio Club". The "Porto Rico Radio Club" was founded the same year; and now has three hundred and fifty enthusiastic members engaged in the development of the wireless telephony and telegraphy. This Club is connected with the American Radio Relay League of the United States of America, that League being the sole institution of its character dedicated to the transmission without charge of family messages thru the many private stations all over the vast territory of the States.

In the year 1922 Station No. 401 of amateurs was opened for service with enough power to

communicate directly with the stations of amateurs in the United States; and on the 15th of September of that year a relay service was for the first time established for wireless messages between the Island and the continent, a service which has been carried on uninterruptedly up to the present time.

Among the First Amateurs to Establish Wireless Communication With Europe. In 1922 during the experiments made under the auspices of the American Radio Relay League with the view of transmitting messages across the Atlantic thru low power stations in the Island, and establishing communications with the Stations of amateurs in Europe, Station No. 401 was among the first whose signals were distinctly interpreted by the English amateurs. Thus covering the long distance of approximately 5,000 miles with a power of 100 watts and using uninterrupted wave and in a wave extension of 200 meters.

Aims. Porto Rico amateurs are striving to make their stations of relay for wireless messages from Central and South America for the North American continent and vice versa. Accordingly, the Porto Rico Radio Club is working to get in touch with the amateurs in Central and South America and encourage them to install transmitting stations capable of reaching Porto Rico. When this is achieved, we shall have greatly aided the extended growth of good relations between the English and Spanish people of America, and greatly contributed to the development of a wonderful means of communication thruout the world.