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BULLETIN OF THE PAN AMERICAN UNION

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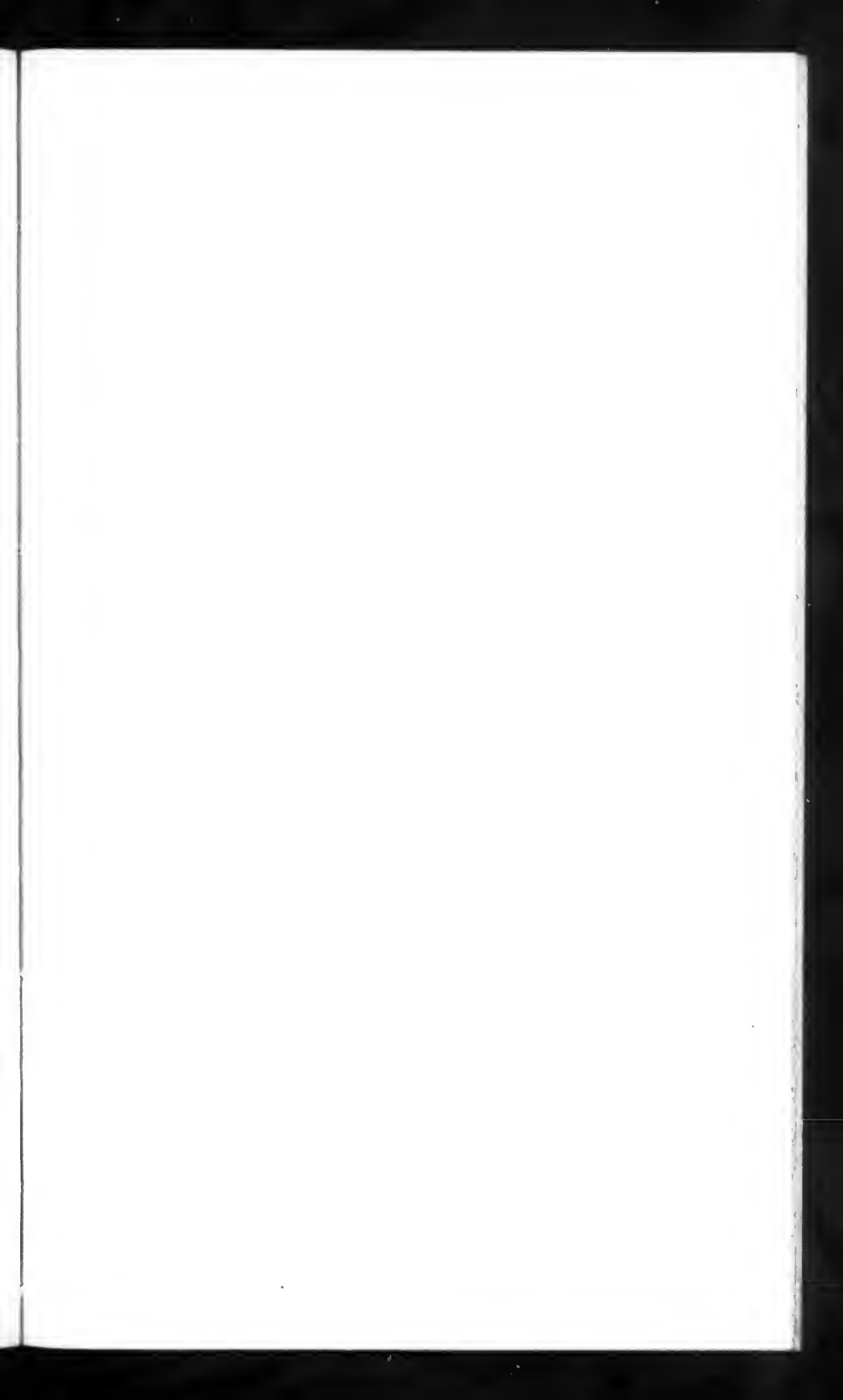


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FOREST LAKE AND MOUNTAIN SCENE, USHUAIA, ARGENTINA.

The forests of the Temperate Zone regions of South America extend southward into the Patagonian territory and even to the shores of Tierra del Fuego. At these southernmost points the trees present a gnarled and twisted appearance, due to the violent action of the southern wintry blasts. In the mountain regions, however, to the north and along the shores of the Patagonian lakes, these forestal giants grow straight and stalwart. The beech tree and the conifer constitute the forestal growth of these regions.



VOL. XLV.

JULY, 1917.

No. 1

SOUTH AMERICAN PORT IMPROVEMENTS--EAST COAST¹ " " " "

THE skipper who sailed to South American seaports a decade or more ago found it necessary to anchor his ship far out in the harbor or roadstead, as the case happened to be, and passengers and cargo were taken ashore in launches, row-boats, or lighters. Modern docking facilities were few. To-day in many ports along South America's 16,000 miles of shore line the lack of port and harbor facilities is still a handicap to shipping; but in considering the more important ports we find that millions of dollars have been expended during recent years. Indeed, the voyager of former days is amazed on revisiting the continent to see the marked improvements that stand to-day as monuments of progress. Financial outlays have been enormous; yet, in numerous cases, the work already completed is but a portion of the greater facilities that have been planned to meet the growing needs. Each port, if we delved into details, could easily furnish material for a volume; space, however, is available for little beyond a statement of main features of progress.

Nature has been kinder to the mariner in providing a vast number of sheltered bays, inlets, and rivers along the eastern coast of the continent than is the case on the Pacific side. From the Strait of Magellan to Panama on the Pacific there is nothing to compare with the natural facilities of the opposite coast line. Thus, the stormier ocean possesses the larger number of havens for those who sail the seas.

¹ By William A. Reid, Pan American Union staff.



A SECTION OF THE MODERN DOCKS AT PARA (BELME), BRAZIL.

Para is about 100 miles from the mouth of the Amazon. A deep channel leads from the main river to the port and docks. In a recent normal year 3,637 steam and sailing vessels entered this port, transporting thither \$29,000,000 worth of goods and bearing away \$48,000,000 worth of rubber and other products from the Amazon and its tributaries.



SCENES ON THE NORTHERN COAST OF BRAZIL.

Left: A front view of the dry dock at Para, which receives many ocean vessels as well as the smaller ships that ply up and down the Amazon. On this great river ocean ships proceed upstream for more than 2,300 miles to Iquitos in Peru. Right: A section of the breakwater at Pernambuco, the foundation of which is the natural reef extending between the inner and outer waters of the port.



PHASES OF CONSTRUCTION WORK AT PERNAMBUCO, BRAZIL.

Upper: The great breakwater being built on the reefs between the harbor and the ocean. Before the construction of this bulwark the waves of the Atlantic dashed over the reefs with great fury. Lower: A completed section of the wall of the inner port. Note the splendid stonework, the material for which was obtained near Pernambuco. Back of this wall solid earth has been used as a filler and the sea front considerably enlarged.

Comparing South America's northern shore line with the narrow southern extremity we also note marked contrasts. In the north there are bays and rivers offering the mariner ample protection, and at a few ports the waters are usually so tranquil that it is proverbially said that ships may be anchored by hairs. Four thousand miles southward the Humboldt current sweeps up from Anarctic wastes and with its winds and waves dashes against the 1,400-foot sentinel, Cape Horn, with constant and well-known fury.

Sailing southward from New York with a view of casually inspecting some of the port improvements, our first call on South America might be at Para, that great rubber-shipping center which gives its name to vast quantities of this now universally needed article. Para, or Belem, as it is officially called to distinguish it from the State of Para, has grown because the world has annually demanded greater quantities of its products, or perhaps more strictly speaking, the products that float down the 40,000 miles of the Amazon and its tributary rivers from Bolivia, Peru, and Brazil.

In a recent normal year, 3,637 steam and sailing vessels cleared from Para; they carried thither more than \$29,000,000 worth of goods and bore away \$48,000,000 in rubber and other tropical products. Only a glance at this enormous trade is necessary to show a large revenue, for the country exacts taxes on its exports. A pleasing and growing revenue suggested better port facilities. About this time the capitalist, looking around for investments, decided on Para, and the Brazilian Government granted concessions to the Port of Para Co., a Maine (U. S. A.) corporation. That event occurred 10 years ago. Two years later, or in 1909, the first units of gigantic improvements were finished and inaugurated, and since that date ships have warped to modern docks.

To-day a mile or more of wall stretches along Para's water front, and the company above named has the privileges of conducting port services, operation of warehouses, quays, etc., for 30 miles—nearly equal distances up and down the river from the city proper. These concessions continue for 65 years, or if additional improvements are constructed, the privilege may be extended 25 years.

Para, on the Para River, is nearly 100 miles from the ocean. A channel 30 feet deep leads from the main river to the actual wall where ships dock. This channel requires frequent dredging, as the river brings down a vast amount of silt and much of the latter finds its way seaward via Para. The largest steamers, however, are able to go to the docks at all seasons, and modern electric cranes handle cargo directly from the many new warehouses that line the water front. The city itself, with its 250,000 people, has improved its streets and parks in recent years, and strangers find it interesting largely on account of its contact with upper Amazon life and activity.



AT THE PORT OF BAHIA, BRAZIL.

Upper: One of the big vessels of the Lloyd Brasileiro (Brazilian Line) at her dock. This is the *Minas Geras*, and is a fair type of the Brazilian ships plying between Brazil and New York. Lower: Scene on the water front of the lower city when the activities of the day have released from labor the army of workers and their carts.



THREE PHASES OF PORT CONSTRUCTION AT RIO DE JANEIRO, BRAZIL.

Upper: One of the great sea walls under construction. After completion the water on the left of the wall was drawn to the outer bay and the area filled in with solid earth. Center: Completed section of piers showing the gigantic cranes, which move on railroad tracks as required, and several of the warehouses. Lower: A section of the sea wall nearing completion.

Seven hundred miles southeastward, passing many smaller ports, stands Brazil's most eastern city and port, Pernambuco (Recife). The population numbers 150,000 and, on account of years of former Dutch occupation, the city has possibly a more Dutch appearance than any other of Brazil.

A great reef extending along the shore for many miles has long been an obstacle to sea commerce, as only smaller vessels were able to navigate the shallow course into the inner harbor. The traveler going ashore from a large vessel anchored off the reefs of Pernambuco often has the basket experience—that of descending into the ship tender or launch by this means, owing to rough waters.

Pernambuco has planned to spend \$10,000,000 or more in providing better shipping facilities. Certain parts of the outer reef are to be blown up and a deep-water course thus provided for entrance of ships into the inner bay; extensive quay walls, additional warehouses and other improvements for making a first-class port are in process of construction. The present war has checked operations but much has already been accomplished, such as the building of breakwaters, sea walls, quarrying stone, and in otherwise getting the work well under way.

Southward 382 miles stands Brazil's third city of importance, Bahia. This city has completed a portion of the port improvements which began on an extensive scale in 1909, and which were inaugurated four years later. When the plans are carried to completion a sum of more than \$20,000,000 will be represented in harbor improvements. Bahia will have added a wall and quay 500 to 600 feet wide for a distance of 2 miles. Fifteen or more warehouses, each 330 by 65 feet, are included in the betterment plans, and several of these buildings have been finished and are in use. Steam cranes, some of which are already in service, range in lifting capacity from 3 to 10 tons.

The Bay of Bahia is 25 miles long and 20 miles wide with an entrance about 2 miles broad. Normally, we see ships from all the world anchored or moving about this great sheet of smooth water.

There are three practical ways for the hurried visitor to Rio de Janeiro (738 miles southward) to see one of the world's largest and most picturesque harbors, which is always alive with ships and shipping. Sugar Loaf Peak, guarding the entrance from the Atlantic, stands nearly 1,000 feet above the placid waters by which it is almost surrounded. An aerial cable railway operating hanging cars was constructed from lower levels to the top of this great sentinel. The view over the harbor, bays, and inlets is beautiful in the extreme. Corcovado, almost double the height of the nearer peak, rises commandingly over the city and offers a still better and grander view. After seeing the harbor in this manner we take a steam launch and spend a day in little voyages here and there about the bay, large



ONE OF THE BEAUTIFUL PASSENGER LANDINGS AT RIO DE JANEIRO, KNOWN AS THE PHAROUX, BUT NOT SO GENERALLY USED SINCE THE CONSTRUCTION OF LARGER DOCKS.



Courtesy of The Americas.

PARTIAL VIEW OF THE BRAZILIAN CITY, PORTO ALEGRE.

This city of 150,000 stands at the head of the Lagoa dos Patos, about 150 miles from the sea, the route of ships being by way of Rio Grande do Sul and lengthwise of the lake.



SANTOS, THE WORLD'S GREATEST COFFEE PORT.

Upper: General view of a part of the upper bay with lighthouse on the left. Lower: View of the harbor. On the right may be seen a number of ocean ships moored at the modern docks. The vessel in the foreground is the *Northern Prince* leaving the port with 116,292 bags of coffee; at Rio de Janeiro 9,615 bags and at Bahia 2,720 bags were added to her cargo. When the ship sailed for New York she transported a total of 128,627 bags of coffee.

enough to shelter the ships of many nations, being 17 miles long and 15 miles wide. The bottlelike entrance is considerably less than 1 mile in width.

A few years ago the vessel arriving at Rio de Janeiro cast her anchor a half mile or so from shore and passengers and freight were slowly landed by means of small boats and lighters. To-day, how different! The ship draws up to one of the vacant spaces along the miles of wall that have been constructed on the water front; the passenger walks down the gang plank and into one of the great warehouses standing at intervals along the wall.

A loan of over \$40,000,000 was made to Brazil by the house of Rothschild, and in 1904 construction of Rio de Janeiro's docks on a gigantic scale was commenced. A commission was appointed whose members had charge of the various phases of the work. The plan, already executed to a large degree, called for the filling in of shallow areas along the edge of certain parts of the bay between the old shore line and the new sea walls. The first space behind the wall was set apart for cargo loading and unloading, next a wide strip of land was utilized for warehouses, while a still wider space was destined for new avenues in connection with Beira Mar, Central, and other famous thoroughfares of the Brazilian capital.

To the engineer and the builder the miles of walls that act as a buffer against the breakers or that serve as safe anchorages for ships are among the most attractive features of the modern development of Rio de Janeiro. The stonework is a marvel of beauty, strength, and permanency.

The next great seaport south of Rio de Janeiro is Santos, 225 miles distant, and a course usually covered by the average ship in a night. Santos is especially interesting to the traveler, as it is the world's greatest coffee mart. If one arrives between August and January, the season of shipping activity, he will see the docks and warehouses veritable beehives of activity.

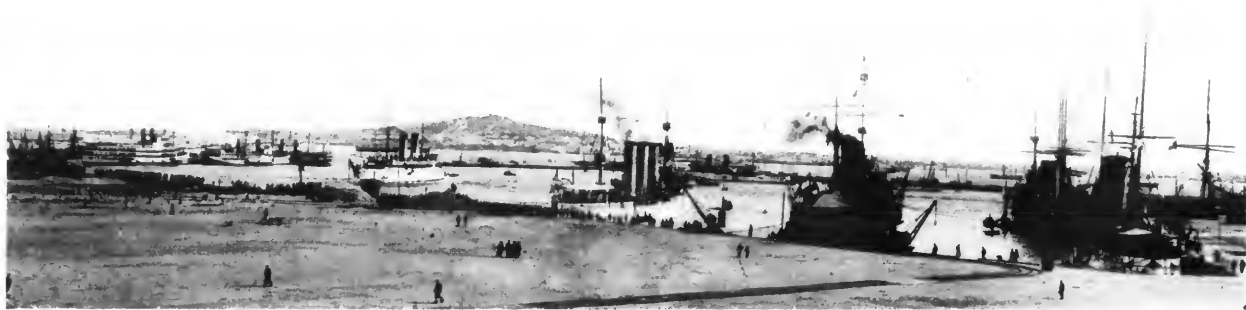
Like other Brazilian ports, Santos has constructed an extensive quay or wall along the water front, and in the latter case this improvement extends for nearly 3 miles. Trains loaded with coffee are run onto the wall and hydraulic cranes capable of raising 5 to 30 tons or more do the work of hundreds of men. There are times, however, when a large army of laborers carry the bags of coffee aboard ship. Along this waterfront are many large warehouses lighted by electricity, modernly ventilated, fitted with traveling cranes, and otherwise provided for handling coffee on a gigantic scale. Brazil's average crop is approximately 12,000,000 sacks of 60 kilos (132.76 pounds) each, the great bulk of which is shipped from Santos.

The port of Rio Grande do Sul lies about 600 miles south of Santos. Along the southeast shore of Brazil lie several lakes and lagoons, the



A SECTION OF THE NEW WATER FRONT AT RIO GRANDE DO SUL, BRAZIL.

This port is about 8 miles from the ocean, the connecting link being the river of the same name, but more properly an arm of the sea. By constructing breakwaters the current was made to deepen its own course. Pelotas and Porto Alegre are reached via Rio Grande do Sul; also there are railroad connections.



GENERAL VIEW OF THE PORT OF MONTEVIDEO, URUGUAY.

Upper: A section of the city, showing in the distance the arrangement of breakwaters and some of the new warehouses near which ships are docked. Lower: Another and closer view of a part of the harbor used by Uruguay's naval vessels. On the extreme left may be seen one of the fine river steamers that ply between Montevideo and Buenos Aires.



A NEAR VIEW OF DOCK "A," MONTEVIDEO, URUGUAY.

This picture, which was made from the headquarters of the captain of the port, shows a portion of the completed improvements and the cranes for handling cargo. Many import and export products are stored within the warehouses and along the piers.

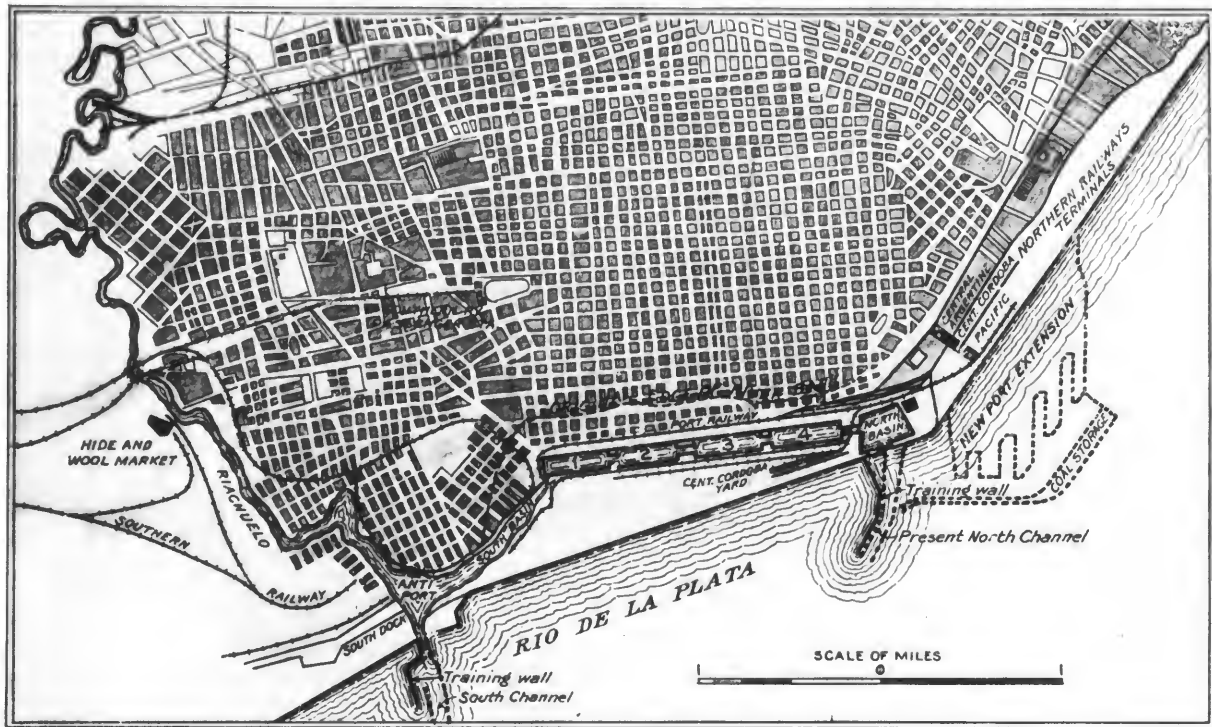
largest being Lagôa dos Patos, a body of water extending north and south 150 miles with a width of from 10 to 40 miles, separated from the ocean by a sand dune strip averaging 5 miles in width. A number of rivers and lagoons pour their waters into the larger lake; the latter empties into the Atlantic by the Rio Grande do Sul, more like an arm of the sea than a river.

Three Brazilian ports are reached through this waterway: Rio Grande do Sul, Pelotas, and Porto Alegre, rivals for maritime trading, although the average ocean vessel can go no farther than the first mentioned port. The populations of these cities are 30,000, 35,000, and 150,000, respectively. The former being the ocean port (8 miles from the sea), it is there that millions of dollars have been spent in dredging and improving the harbor. To some extent at least the outward flow of water was made to deepen its own channel by the construction of especially arranged concrete sea walls and jetties. In the harbor proper much land has been reclaimed behind the new wall, the latter now being of sufficient length to accommodate from 7 to 10 average size merchant vessels at the same time. Powerful and modern facilities for handling cargo are in use, together with numerous warehouses. The port properties are controlled by the Brazilian Railway Co. and its trains run directly onto the dock wall, alongside of which ships of 25-foot draft or more may anchor.

Those who have not seen Montevideo for a decade or longer, and who were accustomed to view the tedious handling of cargo as drivers urged their mule carts out into the water of the sandy beaches and there delivered products to lighters for another transshipment aboard the ship in the bay, will be amazed to inspect the port facilities to-day.

The Bay of Montevideo may be compared in form to a gigantic horseshoe opening toward the southwest, the entrance between Lobos and San José points being about 2 miles wide. The harbor is not naturally a deep one and a vast amount of dredging has been done to accommodate the constantly increasing ocean traffic.

Early in 1901 the Government of Uruguay began work on a very extensive scale to deepen the harbor and to construct the port on modern lines. Among the first purchases was dredging machinery which cost the sum of \$1,000,000, an outlay which at once suggested the important work to follow its use. For 10 years thereafter Uruguay expended more than \$1,000,000 annually for improving Montevideo's shipping facilities, not to mention the millions spent on her inland ports, and by 1910 a sum far in excess of \$15,000,000 had been paid for the work. Not only has dredging continued but sea walls or breakwaters have gradually been lengthened into the harbor. The eastern wall is more than 3,000 feet long, while the



GENERAL PLAN OF THE PORT OF BUENOS AIRES, ARGENTINA.

The dark lines indicate present facilities for handling shipping. Broken lines on extreme right show proposed port extension to meet growing needs. Immediately in rear of these proposed docks several Argentine railways have erected their depots. Along the Riachuelo River, on extreme left, additional docking facilities are available. The great hide and wool market, fronting this river, is also connected with the interior by rail.

western one is nearly a mile in length. At the end of each wall is a flashing light to aid the mariner.

The main provisions, which have been carried out to a considerable extent, call for dredging certain portions of the harbor to a depth of 32 feet below low-water mark; another area has been deepened to 16 feet below low water, the latter for the use of smaller coasting vessels. There are several moles completed and alongside of these ocean ships now tie up for the discharge and loading of passengers and cargo. One of these moles has 15 traveling cranes and 6 fixed ones, all worked by steam and capable of lifting from 2 to 4 tons. Other completed moles are similarly equipped, while additional moles planned or under construction will offer still better facilities. Several floating cranes are owned by the company working on the contract, one of which has a 50-ton capacity.

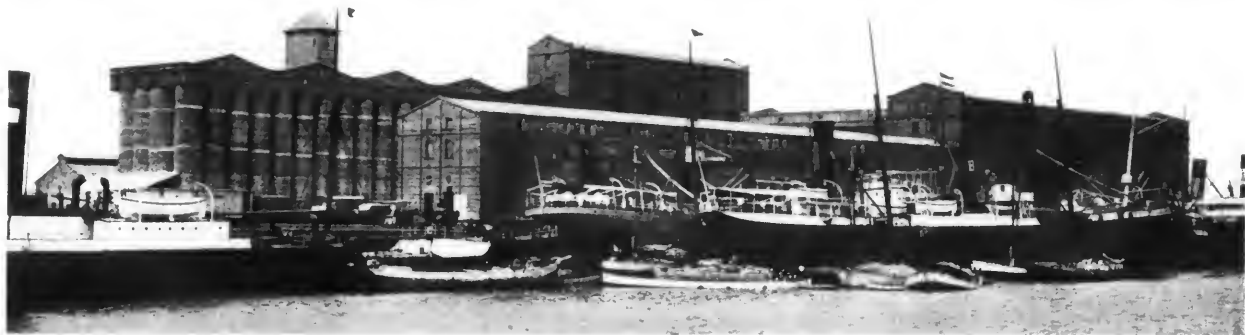
To defray a portion of expenses of port improvements Uruguay levied what is termed a "patente," or tax, of 3 per cent on imports and 1 per cent on exports of Montevideo. In a 10-year period these taxes amounted to more than \$12,000,000, or in excess of \$1,000,000 a year.

Montevideo has not only improved harbor and docking facilities but has devoted a large sum of money to building lighthouses, installation of submarine bells, harbor buoys, wireless telegraph, etc. The Cerro, or hill, which is said to have been a point for which Magellan steered his little fleet centuries ago, now serves as a signal and wireless tower. It dominates the city and surrounding country for miles, and most visitors consider the historic hill a place of special interest.

Not all of the water front of Montevideo has been turned over to trade and traffic. Indeed, sections of the long sandy beaches have been made into playgrounds for the people, and it is there we find many amusement features of the modern pleasure resort and, during the days of summer, a vast throng of citizens enjoying the sea bathing and the delightful casinos and hotels for which Montevideo is famous.

The Rio de la Plata (river of silver), so named by Sebastian Cabot, who, according to fragmentary history, observed natives of the region wearing crude ornaments made of silver, is really an arm of the sea extending 150 miles inland. The river is 120 miles wide at its mouth and at the confluence of the Uruguay and the Parana this great width has decreased to about 4 miles. Unfortunately the Plata is comparatively shallow, and for this reason a vast amount of dredging has been necessary in order to deepen the channels for the larger ocean vessels of to-day.

Buenos Aires is about 130 miles from the ocean, and this great port officially includes La Plata, a smaller but growing shipping center 40



OTHER VIEWS OF THE GRAIN WHARVES AT BUENOS AIRES, ARGENTINA.

In the two pictures we have both distant and near glimpses of trade and traffic. Notwithstanding the enormous facilities, it frequently happens that two or three ships must dock at the same pier and load cargo directly and also from the lighters, shown in the lower picture.



SECTIONS OF THE GREAT DOCKS AT BUENOS AIRES, ARGENTINA.

Upper: South Dock, looking down the rows of ships on either side loading and unloading cargo. Center: The "grain battery" from which thousands of tons of wheat and other grains are shipped annually to foreign markets. Between elevator and ship a continuous flow of grain quickly loads the latter. Lower: Scene from the deck of a departing ocean liner. Cargo has been previously loaded, passengers have been received, and the usual "good-bye" crowd stands upon the dock. If the vessel is bound to Europe or to North America, more than double the distance from New York to London must be covered before arriving at destination.

miles nearer the sea. For 20 miles or more below Buenos Aires the river has been dredged, and to-day a channel admitting the largest ships (at most seasons) is in use. The rapidly growing trade, however, caused a new impetus to port facilities, and in 1911 a contract for improvements was made calling for an outlay of more than \$24,000,000 gold. A short time thereafter these gigantic plans were started and have progressed with gratifying results, although it may be several years before the whole system can be finished and put in operation.

From the main channel up the Plata there are shorter channels leading to two extensive basins within which are included more than 660,000 square meters. There are a great number of warehouses, many of which are the property of the Government, while others are privately owned. To operate the gigantic cranes, hydraulic power is used, and in a single case, which is fairly illustrative of many others, 10,000 tons of grain may be handled in a 10-hour day. This warehouse company has a capacity for storing 120,000 tons of wheat, and attached thereto is a mill with a daily output of 4,000 bags of flour. For miles along the water fronts of the two basins already mentioned and on both sides of the Riachuelo, a tributary of the Plata which serves as a part of the Buenos Aires port, one may see at all times an array of steam and sailing ships that are really astonishing in number. In 1913, the last normal year, the vessels that cleared the port numbered 2,588, carrying away 60 per cent of the entire foreign trade of the country.

In May, 1915, upon reviewing the actual work already accomplished on the extension plans, it was shown officially that certificates of work for \$5,561,528 gold had been approved. In area the new quays will cover more than 100 acres and be served by 30 or more miles of dock railroads.

Argentina's most important southern outlet is Bahia Blanca, 500 miles south of Buenos Aires, on the great bay of the same name. The trade of the port in recent years has gone forward by leaps and bounds, a condition largely influenced by the enterprise of the railways centering there and which spread fanlike to interior regions of the country. In 35 years Bahia Blanca has grown from 2,000 to 50,000 population and millions of dollars have been spent on the ports, known as Ingeniero White and Galvan. In the year 1912 these two ports reached their greatest activity, and the exports of grain amounted to 1,759,200 metric tons, while the shipment of wool showed a total of 93,800 metric tons. Participating in this trade were more than 400 steamships for the same period of time.

At Ingeniero White the first steel mole constructed has a quayage of more than 3,000 feet and can berth at least 10 vessels at the same



TWO BUSY PORT SCENES IN ARGENTINA.

Upper: This view of a portion of the harbor facilities at Ingeniero White, Bahia Blanca, shows the plans adopted for saving time and labor. The many tracks in the foreground are on the mainland. Lower: A part of the port of La Plata, showing the deep-water canal and facilities on either side for handling cargo. Ocean vessels draw up alongside the great meat-packing plant located there and load foods directly from cold-storage warehouses.



Photo by Underwood & Underwood.

TRAFFIC FACILITIES AT BAHIA BLANCA, ARGENTINA.

Upper: A part of the docks of the Southern Railway. This road ramifies into Argentina's southern wheat belt and its trains are run directly onto the docks and unloaded mechanically. Lower: A near view of one of the giant grain elevators. Loaded trains from the interior are quickly handled, the grain passing into the elevator for the cleaning process before entrance into the many chutes leading to the ship's hold.

time, the water depth being from 25 to 30 feet. A wooden mole with space of 754 feet was specially constructed for handling large volumes of grain in the shortest space of time, a necessity during the busy season. This mole and the electrically driven machinery make it possible to embark 10,000 tons of grain in a single day. A number of other moles act as auxiliary facilities, and all of these are equipped with the most modern machinery known to ports and harbors in any land.

Galvan, unit of the larger port, is located on land reclaimed from river swamp. This is also modern in design and equipment and has accommodation for at least 12 large vessels at long quays constructed of masonry; these quays are served by 30 railway tracks onto which trains loaded with grain are run as they come from the interior. Additional works are under construction.

Among the interesting features of the port of Bahia Blanca are the giant grain elevators which pour forth their valuable product directly into the ship's hold as the vessel lies alongside the pier. Two of these immense buildings each have a capacity for storing 26,000 tons of cereals; and into each building cars bearing 45 tons of grain are run and mechanically unloaded very quickly. A 5,000-ton ship may be fully loaded in from 6 to 8 hours.

A few miles from Bahia Blanca is Argentina's southern naval base, at which there are usually stationed a number of war vessels. A dry dock was recently finished which receives the giant sea fighters, *Rivadavia* and *Morena*, each of 28,000 tons displacement. As this dock is now the largest in South America it may be of interest to note some of its dimensions. First, the contract for the structure was let in 1911 and three years thereafter the excavations and preliminaries were completed. The total cost has been more than \$6,500,000, not including half a million additional for the latest machinery with which the dock is equipped. It is 600 feet long, 32 feet wide at base, 120 feet wide at top. Five pumps are used to discharge the water, and when all are working it requires only 1½ hours to empty the dock. Engineers Huergo and Gigliaza and Capt. Maurette, of the Argentine Navy, designed and constructed this great work. The basin on which the dock is located has been dredged to 33 feet, a channel sufficiently deep to admit the larger vessels of the present time.





Courtesy of the Cuba Review.

HOME OF THE CENTRO GALLEGO, HABANA, CUBA.

Of all the great clubs and associations of Habana, the "Centro Gallego" is the greatest in point of wealth and membership. Its palatial home, pictured above, cost over \$1,000,000, occupies an entire city block, is equipped with all the luxury and convenience of the great social clubs of large world cities, and contains the National Theater. The "Centro" boasts a membership of 45,000 and an annual income in excess of \$1,000,000.

HABANA: THE GREATEST CLUB CITY IN THE WORLD

ONE of the most striking features of the general social life of the Cuban capital is the unique development of its clubs. The city has a population of about 350,000, and according to recent statistics at least 125,000, or over one-third of all the inhabitants, are members of some club. On the face of it, such a statement would seem hardly credible to a clubman in a city of the United States or Europe. The further assertion that there is one club in Habana whose membership has reached the enormous total of 45,000 seems equally unbelievable, and yet these statements are absolutely true. Practically every man in the city is a member of a club, whether he be a millionaire sugar baron or a hod carrier; and of the two, the latter has greater incentive to belong to his large social organization than has the former to join the select and exclusive club to which wealth and position in society are requisites for membership. This state of affairs is, to say the least, rather unusual and is due to certain features that are peculiar to a number of these organizations, and the following account, chiefly based on data furnished by Sr. Francisco A. Godoy, of Habana, may serve to elucidate the matter:

The leading clubs of the city, considered from the standpoint of number of members and wealth of their treasuries, are the various organizations known as "Centros." These were originally organized by Spanish residents of the city whose purpose was to unite in a social organization those of their compatriots who came from the same section of Spain. Thus the "Centro Gallego" was organized primarily for the benefit of the Galicians, the "Centro Asturiano" for natives of Asturias, and various other sections of the mother country were similarly represented.

In addition to its social and recreative functions, the "centro" soon developed certain mutual aid and benefit features, and it is these features that have made it not only a pleasant luxury but a real necessity in the lives of the people of Habana. The "centros" have in recent years not confined their membership to persons from the respective sections of Spain which have given their names to the various organizations, but most of them are still chiefly composed of Spanish born or the immediate descendants of such. The exception to this rule is the "Centro de Dependientes," one of the three largest and wealthiest of these organizations, which is the most democratic, and to which most of the Cubans and residents of foreign birth belong.



Courtesy of the Cuba Review.

AN INTERIOR VIEW, CENTRO GALLEGO, HABANA.

Among the attractive features of the Centro Gallego are its spacious ballrooms and one of the largest billiard rooms in the world. This spaciousness is necessary to accommodate the great membership of the club, which has now reached over 45,000.



Courtesy of the Cuba Review.

GRAND STAIRWAY IN THE CENTRO GALLEGO CLUBHOUSE.

This view of the grand stairway of the Centro Gallego Clubhouse gives a glimpse of the architectural embellishment of the interior of this modern club. It is also provided with a large library, reading rooms, ballrooms, reception halls, billiard halls, gymnasium, and other features found in modern clubhouses.



HOME OF THE "ASOCIACIÓN DE DEPENDIENTES," HABANA.

The Asociación de Dependientes is one of the three largest and wealthiest "centros," or clubs, of Habana. It was founded about 37 years ago and boasts of a membership exceeding 25,000. The upper picture shows its palatial home, the lower the main stairway in the building. In addition to the usual social club activities the Asociación maintains many novel features outlined in the text.

This remarkable "Clerks' Club" counts among its 25,000 members not only clerks, but merchants, professional men, artisans, men of wealth and leisure, as well as men who must work hard for their daily bread, and men of practically all nationalities who make their permanent home in the Cuban capital. Its doors are closed to no one who is honest and trustworthy, however rich or poor, if he can but keep up his modest dues of \$1.50 a month.

The club was founded about 37 years ago, and has grown to be one of the greatest social organizations in the Americas. Its magnificent building, which occupies an entire square of the city and cost \$1,000,000, has all the appointments, conveniences, and attractive features of the large social clubs of other American cities. Its immense ballroom will accommodate 3,000 couples at a time; its dining room contains 200 tables; and its billiard hall is said to be the largest in the world. Elegant reading rooms, a large library, well equipped gymnasium and modern bathrooms, are all adequate to accommodate the huge membership. In these features, as well as in its social entertainments, balls, etc., it is not different from the typical social club; but these form but a part of its attractions. The features that most appeal to the modest workingman, clerk, small merchant, and others of limited means may be briefly summarized as follows:

The club maintains free night schools for its members, where those of limited education may improve their general knowledge, study shorthand, bookkeeping, and various other subjects; it maintains a kindergarten for the benefit of their small children; grammar and high schools for larger boys and girls; domestic science classes where their wives and older daughters may take courses in cooking, sewing, and other domestic branches; it employs its own staff of surgeons, physicians, oculists, and dentists, who attend to the wants of the members free of any charges save perhaps for the material used in filling teeth or the lenses prescribed for the correction or aid of sight; it also maintains its own hospital, a sanitarium for consumptives, and an asylum for the insane. All of these advantages belong to each and every member, not as a matter of charity but as a matter of right. He pays his dues of \$1.50 a month and thereby becomes a partner in the organization, and is entitled to any of these privileges he desires.

These mutual aid and benefit features are not peculiar to the "Centro de Dependientes" alone; several of the other "centros" have practically the same features. Of all of them, the "Centro Gallego" is the largest and wealthiest. It has a membership of 45,000, an annual income of over \$1,000,000, and is housed in a palatial structure that cost over \$1,000,000. The second largest is the "Centro Asturiano," which has a membership of 37,000, composed chiefly of Span-



GRAND BALLROOM OF THE ASOCIACIÓN DE DEPENDIENTES.

To accommodate its large membership the Asociación de Dependientes, of Habana, has a ballroom that is large enough to permit of 3,000 couples dancing at the same time; its dining room has 200 tables, and its billiard hall is said to be the largest in the world.



THE CENTRO ASTURIANO, HABANA.

Top: A section of Central Park, Habana, showing the spacious clubhouse of the "Centro Asturiano," covering an entire city block, in the left center of the picture. Center: The "Quinta Covadonga," the splendid hospital maintained and owned by the "Centro Asturiano." Bottom: The administration building of the "Quinta Covadonga," the free hospital maintained by the "Centro Asturiano" for the benefit of its members.



A SECTION OF THE "PRADO" (PASEO DE MARTI), HABANA.

The building near the center of the picture, just beyond the automobile standing at the curb, is the home of the Casino Español, the largest and most prominent of the foreign clubs of Habana. On the same street is located the American Club, second only to the Casino in membership and importance.



MAIN STAIRWAY OF THE CASINO ESPAÑOL, HABANA.

One of the most sumptuously equipped of the strictly social clubs of Habana is the Casino Español; also the largest, in point of membership, of the foreign clubs of the city. The above picture of the main stairway of the clubhouse gives an idea of the architectural beauty of its interior.



TWO OF HABANA'S CLUB BUILDINGS.

The building shown on the left bearing the sign "Asociación Canaria" is also the home of the "Club Atlético de Cuba," while the three-story building on the right is the clubhouse of the "Veteranos de la Independencia," or Veterans Club.

iards but with a considerable Cuban contingent that is also represented on the governing board. It has one of the handsomest buildings in Habana for its home, covering an entire square and including one of the best theaters in the city. Some of the "centros," such as the "Balear" and "Castellano," admit women as well as men to membership, and for an additional fee of 50 cents a month give medical aid to other members of the family of a member. Although the medical services rendered are the chief attractions of these latter institutions, they also have a club house in addition to the sanitarium.

Relative to the popularity of the "centros" in general Señor Godoy writes:

The medical department undoubtedly is the drawing card of these institutions. It affords medical aid to the members at their homes, at the doctors' offices, or at the wonderful "quintas," or sanitariums, which each "centro" owns. A visit to these "quintas" is worth while. They comprise a number of modern hospitals for the treatment of every kind of disease, they have their own medical corps and parallel in equipment and service the best in the world. They have their own pharmaceutical department, which carries in stock a full line of drugs, medicines, and pharmaceutical sundries, for the exclusive use of the "quinta." An idea of their magnitude and importance may be had when it is stated that "La Benefica," the "quinta" belonging to the "Centro Gallego," treats over 12,000 patients a year, not counting the thousands of visits to and consultations with the doctors at their offices. In some of the "centros" patients are taken to the "quinta" only when the attending physician deems it necessary, otherwise they are treated at their homes. When treated at the "quinta" the room, meals, and prescribed medicines are furnished free of charge, and in the event of the death of the patient the club provides for a suitable burial in cases where the family of the deceased is unable to bear the expense.



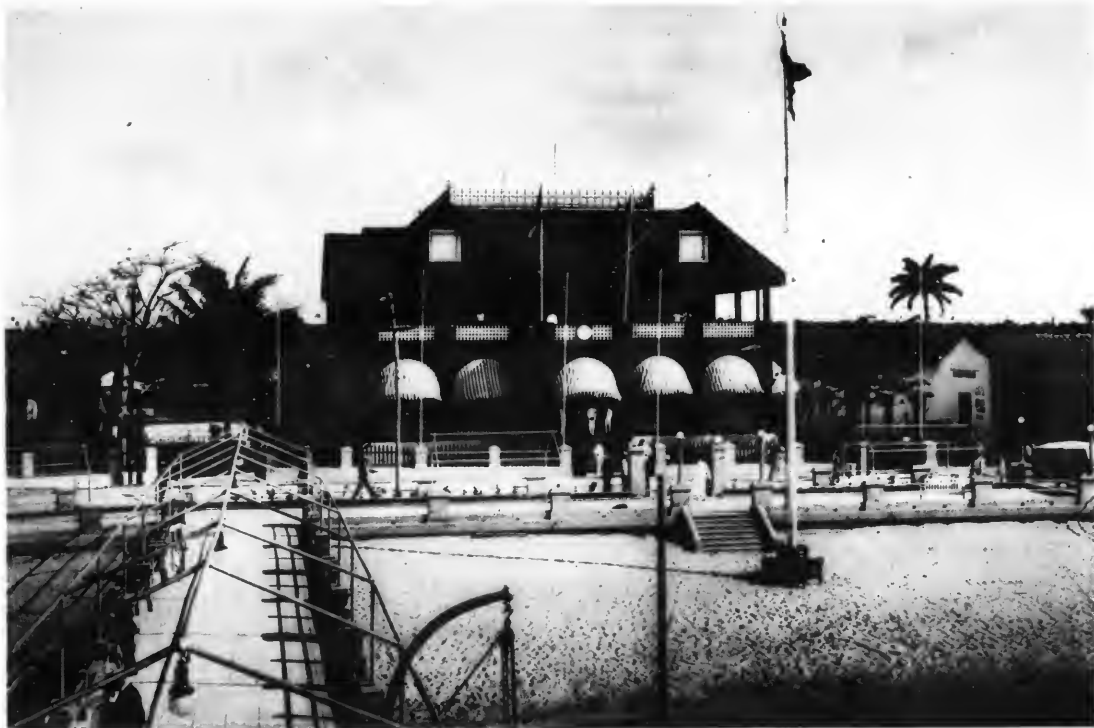
A "CASTLE IN CUBA."

As the young Spanish emigrant nears the shore of his dreams, the famed "Pearl of the Antilles," his fancy pictures the palatial clubhouse, perhaps the "Centro Gallego," of which he is sure to become a member soon after his arrival at Habana. These "centros" are well known in the mother country and are among the chief inducements that lead young men of ambition to seek their fortunes in the New World. The above picture is a reproduction of part of the cover of the Centro Gallego year book.



THE COUNTRY CLUB OF HABANA, CUBA.

The Country Club of Habana is located not far from Mariano Beach, and in point of membership and equipment will compare favorably with similar clubs in the United States. The upper picture shows a view of its clubhouse; the lower shows a portion of the golf links. While the membership consists chiefly of people from the United States, Cuban society is also well represented.



HOME OF THE HABANA YACHT CLUB, ON MARIANAO BEACH.

The Habana Yacht Club was organized in 1886 and counts among its members some of the leading men of the Cuban Republic. Aside from its activities in yachting, boating, swimming, etc., the club is noted for its elegant social entertainments.



BATHING BEACH OF THE HABANA YACHT CLUB.

Marianao Beach is noted for its fine bathing facilities, and swimming is one of the principal recreations of the members of the Yacht Club. In the right of the picture is shown the solid concrete pier built out into the sea by the Yacht Club for the use of its members.

One of the most useful features of the "centros" is the protection and good influence they exert in behalf of the youthful immigrant who comes to the Cuban capital from Spain, where these institutions have become well known. In this connection Señor Godoy writes:

A glance at the reproduction of the cover of the yearbook of the "Centro Gallego" tells the whole story. There we see a youth from Galicia arriving at the shores of Cuba. His first thoughts and desires picture the magnificent club building. He is probably coming to work in one of the large wholesale business houses on Muralla Street, where the greater part of Habana's commercial wealth is to be found. These houses we find to be invariably owned by Spaniards, and their clerical system differs a great deal from that of the United States. Here in the old Spanish business houses the clerks are given room and board, and it is naturally to the interest of the proprietor that his clerks be members of one of the "centros." He has probably had many of them come to him from their far-away home in Spain to take various clerical positions, and thereby incurs a measure of responsibility for their welfare. Therefore the first thing he does when a new member of his working force arrives is to make him a member of a "centro," himself often paying the required dues, which are subsequently deducted from the clerk's salary. Thus we find that the vast army of wage earners are practically all members of some one of these clubs.

In addition to the "centros," Habana has a large number of other clubs that differ in no material respect from the typical social, athletic, and political clubs of other large cities. For the sake of convenience these may be divided into city and country clubs. Among the former the foreign clubs occupy an important position, and of these the Spanish Casino is the largest; second comes the American Club, founded in 1902, which has steadily grown in membership until it now has something over 300. It occupies a well-appointed building on the Prado, Habana's beautiful boulevard, and has all the typical modern club features that are found in similar social organizations in the United States. Special banquets and social entertainments are given on patriotic occasions, such as the celebration of Washington's Birthday, Independence Day, etc., when the mayor of Habana and other officials are specially invited guests and the cordial relations between native society and the American colony are emphasized. Among other foreign clubs are two Chinese, which include in their membership the important persons of that race.

Of the strictly social clubs the oldest and most exclusive is the Union Club, a Cuban organization, which is restricted to men only and to whose functions the ladies are never invited.

In regard to the country clubs Señor Godoy writes in part as follows:

A great treat to visitors who may have the good fortune to be entertained at the country clubs of Habana is to attend one of the Saturday afternoon concerts by the Military Band at the Yacht Club on Marianao Beach. These entertainments are attended by Habana's smart set and usually last until late in the night. Dinner is served on small tables placed all along the concrete pier belonging to the club, while dancing goes on before and after refreshments are served. The club was founded in 1886 and from the time of its organization has been frequented by the most prominent people of the city.



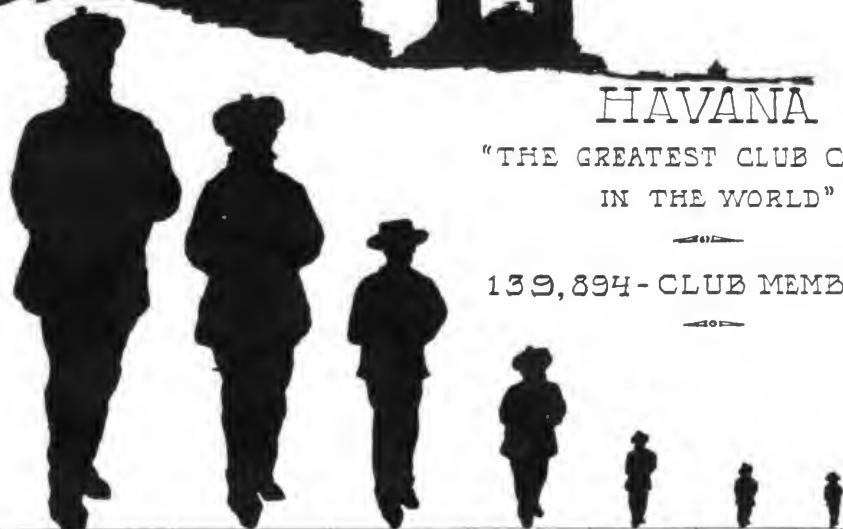
THE VEDADO TENNIS CLUB, HABANA.

Another famous organization of the Cuban capital is the Vedado Tennis Club. Besides its main sport, lawn tennis, the club members enjoy other outdoor sports, such as swimming, boating, etc., the clubhouse being located close to the seashore and affording excellent facilities for such activities.



THE Y. M. C. A. IN HABANA, CUBA.

Top: The home of the Young Men's Christian Association in Habana. Center: Interior view, showing entrance hall and office. Bottom: Swimming pool in the Habana Y. M. C. A. building.



HAVANA

"THE GREATEST CLUB CITY
IN THE WORLD"

139,894-CLUB MEMBERS

NAME OF CLUB	GALLEGO	ASTURIANO	DEPENDIENTES	CANARIO	BALEAR.	CASTELLANO	OTHER CLUBS
MEMBERS	45,000	37,281	25,329	16,040	8,000	4,000	4,244

Not far from this beach we come to the Country Club, a club which will compare favorably with any similar organization in the United States, and which boasts of splendid golf links, tennis courts, and the most picturesque of surroundings. Although its membership is composed chiefly of Americans, Cuban society is well represented. One of the unique entertainments of the club is their annual "red ball," given during the carnival season, upon which occasion the ladies are required to dress in red while the men wear either red suits or at least have on red neckties with their evening clothes.

Another organization which may be regarded as a country club is the "Vedado Tennis Club," whose main activities are of an outdoor and athletic nature. Being located near the seashore, yachting and boating are popular, although its chief attention is given, as its name implies, to lawn tennis. Its artistic home is located on a beautiful spot near the ocean and is the scene of many elaborate entertainments.

Among the women's clubs may be mentioned the "Lawn Tennis Club," located not far from the "Vedado Club," which was organized by the society girls of the city, and which is composed of a very exclusive membership; and the "Woman's Club of Habana," composed principally of married ladies, and whose activities are chiefly of a literary and educational nature. The majority of the members are American, but there is a substantial representation of Cuban ladies, who are also represented on the governing board. The club's activities in charitable works have made it specially notable.

In this sketch no account has been taken of the numerous medical associations, music clubs, secret societies, and various orders organized for specific purposes which have large memberships but are without those features that characterize real clubs. From those which have been noted, however, it may be seen that Habana is justified in claiming to be "The greatest club city in the world."

BRAZIL: TO-DAY AND TO-MORROW¹ :: :: ::

TO PLACE before the reader a comprehensive picture of a country, to condense its history, to show the character of its people and their present status in the social and intellectual world, to explain their industrial activities and their economic, commercial, and financial position, all in a book of 300 and odd pages, is indeed a very difficult task. This is the task, however, that Miss L. Elwyn Elliott has accomplished in a most interesting and satisfactory manner in the volume entitled "Brazil: To-day and To-morrow," recently published by the Macmillan Company, New York.

To write a book of this character requires an intimate knowledge of the various subjects dealt with, and such knowledge the author

¹ Brazil: To-day and To-morrow. By L. E. Elliott, F. R. G. S., Literary Editor Pan American Magazine, New York. Illustrated. The Macmillan Company, New York, 1917. Price \$2.25.



A COLONY COFFEE PLANTATION IN SÃO PAULO, BRAZIL.

In regard to the Italian colonists in Brazil and their successful entry into the various national industries Miss Elliott writes: "The Italian has remained upon coffee fazendas, acquired land and coffee trees of his own, or taken up commercial work in the towns, rather than remain in *aulcos*; he has identified himself with the modern progress of South Brazil, taken up manufacturing, built himself some of the most splendid and extravagant homes in São Paulo, famed as it is for luxurious dwellings; the Avenida Paulista, pride of São Paulo, was 'built on coffee,' and much of the wealth displayed there is Italian wealth, created during the last 25 years."



Photos by D. M. Hazlett.

VIEWS OF PARA (BELEM), BRAZIL.

Belem, generally known to the world as Para, is the great rubber port of Brazil near the mouth of the Amazon, while about 1,000 miles farther up the great river is Manaus, the rubber metropolis of the interior. Of these two cities Miss Elliot writes: "It was in the golden period of Amazonian rubber exports that both Manaus and Para clothed themselves in all modern civic graces: fine public buildings, well-paved streets, street cars, good sanitation, water supplies of unimpeachable source, electric lights, and numbers of splendid private dwellings remain as a return for some of the floods of money earned by the gum of the deep forests." The upper picture shows the fine Teatro da Paz, in the Parque Joao Coelho, in Para, while the lower shows a view of the port from an ocean vessel anchored in the river.

has evidently acquired, not only by years of study of Latin-American countries and their people in general, but by personal residence for two years in the country of which she writes in the present work. The opinions expressed are certainly her own, based on personal experience and observation and not on what casual travelers have had to say about the subjects she presents. This does not imply that her conclusions and judgments are necessarily infallible or correct in every detail and particular. Her opinions and observations are naturally colored by her own individuality, and no two people have exactly the same perspective. Taken as a whole, however, the book is remarkably free from bias and devoid of prejudice.

The first chapter of the book is a condensed history of the country from the time of its discovery to the year 1916, told in a lively and unpedantic style that lends this feature an interest usually lacking in historical sketches.

The second chapter, "Colonization in Brazil," gives the reader an insight into a phase of Brazilian life found in no other country of equal size and importance. The peculiar features are summarized in the following introductory paragraphs:

The story of colonization of Brazil is unique in the annals of the human movement across the world that has been going on ever since man began to multiply and to seek elbow room; it is one of the phenomena of exodus.

Arrival upon the shores of Brazil of an extraordinary variety of races was not a voluntary immigration in most instances. It was the result of a studied policy inaugurated by the Emperors of Brazil and carried on to the present day by the Federal Government and certain of the separate States; experiments in various kinds of people were made on a concerted plan, the colonies were grouped, in many cases isolated, retained their language and customs, still produce the food to which they were accustomed in the home land, and only become assimilated as their populations leave them or touch in time the fringe of others. The official mothering which they received tended rather to keep them grouped than to spread them in the earlier years.

The author then gives an account of the various efforts of colonization, beginning with the year 1817, when Dom João brought in some 2,000 Swiss settlers; the second influx, which consisted of Germans, the first colony being founded in Rio Grande do Sul in 1825 followed by numerous others in the southern part of the country until the total of German immigrants and their progeny amounted to about 250,000; the coming of Portuguese from the mother country to the number of 976,386; of Spaniards numbering 468,583; Italians to the number of 1,361,266; Russians, Austrians, Turks and Arabs, French, English, Japanese, Swedes, and Belgians, at various times and in smaller numbers. Of these immigrations the most important has been that of the Italians, and their successful colonization is briefly outlined in the following excerpt:

From the year 1820 to the end of 1915 a total of 1,361,266 Italians have officially entered Brazil as immigrants. With their children born in Brazil they total well over



Courtesy of the Lloyd Brazileira.

VIEWS OF FORTELEZA, STATE OF CEARA, BRAZIL.

Top: The Government Palace. Center: View of the city from the harbor. Bottom:
A street scene in the city.



Courtesy of the Lloyd Brasileira.

VIEWS OF RECIFE (PERNAMBUCO), BRAZIL.

Top picture: The lighthouse (Phare de Olinda) near the entrance of the harbor. Second: The Capibaribe River wharf. Third: The Praia do Mar. Fourth: The quay for ocean vessels.

2,000,000 to-day, greatly outnumbering any other entering race. Their colonization has been a marked success, due not only to their personal characteristics but to the just treatment given them by the authorities. There was a time, soon after the abolition of slavery, when the colonos brought in to fill labor gaps complained of the relations between themselves and the fazendeiros. Realizing that the existence of friction and subsequent scandals would defeat their object, the São Paulo Government put machinery into working order, known as the *patronato agrícola*, which adjusted differences, looked into social conditions, and took in hand the work of giving medical care and schooling to immigrants. The Italian has remained upon coffee fazendas, acquired land and coffee trees of his own, or taken up commercial work in the towns, rather than remain in nucleos; he has identified himself with the modern progress of south Brazil, taken up manufacturing, built himself some of the most splendid and extravagant houses in São Paulo city, famed as it is for luxurious dwellings; the Avenida Paulista, pride of São Paulo, was "built on coffee," and much of the wealth displayed there is Italian wealth, created during the last 25 years. The year of greatest immigration in Brazil is said to have been that of 1891, when, out of a total of nearly 276,000, about 116,000 were Italians; their influence upon prosperity in São Paulo may be estimated by the fact that more than 1,000,000 out of the State's 3,000,000 population are of Italian blood. No other State has so systematized immigration, perhaps because none had the pressing need and the immediate rewards to offer, as has São Paulo; she no longer pays passages on steamships but she maintains free hotels in Santos and São Paulo city, where five meals a day are given, good, airy rooms, baths, etc., and where immigrants are lodged for a week or until work is found.

The third chapter deals with social conditions in the country, and, without entering into other phases, the following excerpts, dealing with the literary and intellectual life as typified in Rio de Janeiro and São Paulo, are illuminating:

Life in the two chief cities of Brazil, Rio and São Paulo, takes its hue from the European capitals with which they are closely in touch, and from which they have derived mental food for many a generation. There is little about either of these fine cities, apart from the hot summers, the brilliant vegetation, their remarkable cleanliness, and the Southern Cross overhead to distinguish them from European cities. The clothes, amusements, buildings, and literature of the population are predominantly European, and there is not much to remind the visitor that he is in tropical South America. Rio is the "intellectual center" of Brazil, and here are gathered the scores of good writers and poets, the artists and politicians, of the country; there is a profuse and characteristic literature. If the North American writer was correct in saying that "American literature is only a phase of English literature" he would have been equally justified in saying that South American literature is a phase of French literature; yet in Brazil this would have less truth than in most parts of Latin America, because this country has so largely developed a series of writers who take native Brazilian life for their theme. There are long lists of Brazilian novels and poems which really reflect Brazil conditions in the very varied sections of the country. I know no other South American country whose literature is so emancipated, not from French style so much as from European subject matter. There is, for instance, the excellent work of the Visconde de Tauay, whose charming *Innoceência* is a picture of interior conditions, and has been translated into almost every language, not excepting Japanese. The books of José de Alencar form another series of provincial pictures; Machado de Assis wrote a number of historical novels of great merit and interest; Coelho Netto, Aluisio de Azevedo, J. M. de Macedo, Xavier Marques, are among a score of names of writers who have left records of Brazilian life. If I were advising the study of a brief list of such novels, this would be a preliminary dozen:



Photo by D. M. Hazlett.

VIEWS OF SÃO SALVADOR (BAHIA), BRAZIL.

Bahia is the great tobacco center of Brazil. São Felix, just across the bay from the city of Bahia, is where the largest tobacco factories are located in the finest of the tobacco-growing regions of the country. The annual production varies from 20,000 to 45,000 tons, the average export being perhaps 30,000 tons. Prior to the European war the industry was largely in the hands of Germans, and it was to Germany that most of the exports were sent. Now, however, much of the product goes to France.

Innocência, by the Visconde de Taunay. Novel of fazenda life in the interior; a delicate and touching story.

Os Sertões, by Enclydes da Cunha. Powerful and vivid description of a page of national history, with a setting in the interior Brazilian uplands.

O Sertão, by Coelho Netto. Scene also laid in the interior, with its simple customs.

O Mulato, Aluisio de Azevedo. Deals with the position of the negro half-caste in Brazil.

O Gaucho, José de Alencar. Life of the Brazilian cowboy.

Os Praieiros, Xavier Marques. Life of the fisherfolk on islands near Bahia.

O Paraora, Rodolpho Theophilo. Exodus of the Cearenses to the rubber forests of the Amazon.

Maria Dusá, Lindolpho Rocha. Story of diamond hunters in the interior of Bahia.

Braz Cubas and Quincas Borba, Machado de Assis. Historical novels dealing with colonial life.

Esphynge, Afranio Peixoto. Social life of Rio and Petropolis, or Dentro da Noite or Vida Vertiginosa, by "João do Rio," also social life of the capital.

There are also the finely written novels of Brazil's woman writer, Julia Lopez de Almeida, whose Fallencia is a very skillful piece of work; and no study of Brazilian life would be complete without José Verissimo's *Scenas da Vida Amazonica*, preserving tales and legends of the Amazon, and the kindly *Memorias da Rua do Ouvidor*, of J. M. de Macedo, telling tales of the early days of Rio de Janeiro.

Poets are many. The "Prince of Brazilian poets," acclaimed by public vote, is Olavo Bilac, whose *Via Lactea* is a beautiful work; he is one of the most distinguished members of the *Academia Brasileira*, whose president is the publicist and orator of international fame, Senator Ruy Barbosa.

Olavo Bilac is something more than a poet; he has recently made it his mission to sound a "call to arms," addressed to Brazilian young men, with the object of bringing about physical and moral improvement through military service. His addresses in the capitals in 1915 made a great stir; he later, in the middle of 1916, began a tour of Brazil, penetrating into interior regions as well as visiting coast towns, to repeat his appeal. A most admired and beloved poet, Bilac has prestige which few other people could bring to such a self-appointed task.

After Bilac comes Alberto de Oliveira and a long list of other dexterous versifiers; many produce charming poems, and he who wishes to have an acquaintance with classical Brazilian verse must read the output of Gonçalves Dias, who took the life of the Indians for his theme, as well as that of the lyric writer Gonzaga and the graceful Claudio da Costa.

The fourth chapter deals with the matter of transportation by sea, river, and rail. Especially featured is the excellent account of the development of the railway systems of the country, the present lines, future prospects, etc.

The fifth chapter deals with the varied industries of the country, and for those who are not familiar with the vast resources of Brazil, the potential wealth in its great forests, its millions of acres of arable lands, its rich mineral deposits, its pastoral possibilities, and in its water powers for manufacturing purposes, this chapter will prove a revelation.

Practically every one who is at all informed in regard to the great commodities of the world's market knows more or less of Brazil's preeminence in the coffee and rubber industries, both of which are



STUDENTS PICKING COTTON AT AN AGRICULTURAL SCHOOL IN BRAZIL.

Great improvement in the selection of seed and the cultivation of cotton has taken place in Brazil during the last few years. In the above reproduction of a photograph may be seen students of the Piracicaba Agricultural School picking cotton in one of the experimental fields of the institution. The Federal and State Governments are active in lending their aid to develop the industry, and several expert cotton growers have been brought over from the United States for the purpose of classifying and standardizing the best cottons for Brazilian planters and to teach them the best methods of cultivation.

comprehensively dealt with in Miss Elliott's book. That the soil and climatic conditions of the country are also well adapted to the production of fine grades of cotton is, however, not so well known, and the following excerpts from the author's account of the growing cotton industry may be enlightening to many:

Cotton is native to Brazil as to other regions of northern South America, Central America, and Mexico, the south of the United States, and the West Indian Islands. Wild or carelessly cultivated Brazilian cottons are, despite neglect, of such excellent quality that George Watt, in *Wild and Cultivated Cotton of the World*, says that when they are properly selected and standardized they will "make Brazil as famous as Egypt in the production of excellent fibers." North American cotton buyers, visiting Brazil early in 1916 were astonished to find cotton of long silky fiber produced here, and made arrangements for shipping quantities of the *Seridó* variety to the United States; England has for a very long time been a purchaser of the same fine qualities of raw cotton, for mixing, as Egyptian cotton is mixed, with the short fiber product of the United States.

Cotton of one kind and another is grown all over Brazil. There seems to be no region which refuses to mother it. But the best lands, yielding most prolifically and with large areas suitable for cultivation on a great scale, are in the center, on the northeast promontory, and all along the coast to the mouth of the Amazon. Comparatively very small fragments of this belt are under cotton culture, although wild cotton and patches of cultivation of more or less merit are widely scattered; Todd, in his *World's Cotton Crop*, says that Brazil "might easily grow 20,000,000 bales, but her actual crop does not yet reach a half million bales." Now, with the encouraging measures taken by the Brazilian Government as well as the enterprise of individual firms and planters, and the new realization of the opportunity waiting for the farmer with small capital but large technical skill, experience, and good sense, cotton culture should open up great spaces of land suitable for this well-rewarding form of agriculture. Brazilian cottons or their Peruvian and West Indian kin have endowed the world with fine varieties; it remains for their standardization to benefit the land of their origin.

* * * * *

Cultivation of cotton by the Portuguese colonists began very soon after the granting of the capitánias in 1530. By the year 1570 large crops were being produced in Bahia, chief center of industrial activity, although they could not equal sugar in value. Europe was just beginning to use this material, for with the acquisition of strips of India by the Portuguese there was an entry into European markets of Calicut "calico." Before this dawn of the cotton era Europe went clothed in leather, wool, and, on occasions of great splendor, silk. We may conclude that the clothing of the day was probably as comfortable as, and certainly more substantial than garments of the present period, if not as sanitary; but cleanliness had not yet become a virtue. India taught Europe the use of cotton, and the spindles and looms of the ladies were filled with the vegetable fiber in lieu of wool.

In Pernambuco the culture of cotton became of more importance than sugar; farther south the Paulistas set their Indian slaves to work and were soon producing cotton crops on widely spread plantations. In the seventeenth century cotton was carried into Minas Geraes by the gold-hunting *landeirantes*, but it was only cultivated in the most desultory manner and when there was nothing else for the slaves to do.

The author traces the rise of the industry, its discouraging checks by restrictions on the spinning and weaving mills by the Portuguese Government during the latter part of the eighteenth century, its

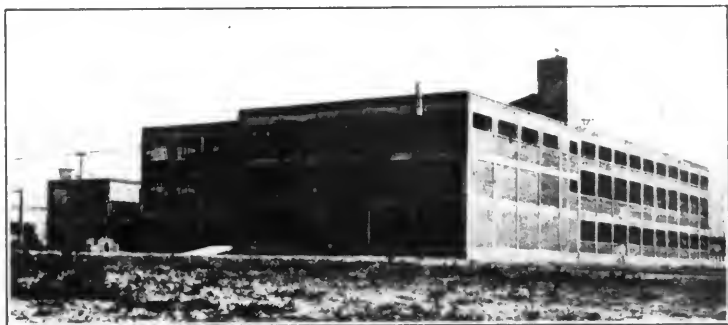


Courtesy of the Pan American Magazine



TAKING COTTON FROM THE GIN TO THE RAILWAY.

"North American cotton buyers, visiting Brazil early in 1916, were astonished to find cotton of long, silky fiber produced here, and made arrangements for shipping quantities of the Seridó variety to the United States; England has for a long time been a purchaser of the same fine qualities of raw cotton for mixing, as Egyptian cotton is mixed, with the short fiber product of the United States." (From "Brazil: To-day and To-morrow," by L. E. Elliott).



THE CATTLE INDUSTRY OF BRAZIL.

Top: View of the Continental Products Company's plant at São Paulo, showing the "run" by which the cattle enter the slaughterhouse. Center: Part of the pens, showing some of the cattle to be slaughtered. Bottom: The refrigerating section of the plant.



Courtesy of the Lloyd Brasileira.

VIEWS OF THE BAY AND CITY OF RIO DE JANEIRO.

Upper, left: The building of the Ministry of Agriculture, Industry, and Commerce, the department of the Government which has done so much to stimulate the agricultural and industrial development of the country within the last few years. Upper, right: The famous Municipal Theater of Rio de Janeiro, one of the finest and costliest structures of its kind in the Western World. Lower, left: The dreadnaught *Minas Geraes* in the harbor of Rio, the Sugar Loaf in the background. Lower, right: The "Pao de Assucar," or Sugar Loaf, and the Praia Vermelha viewed from the bay.



subsequent revival when Dom João, the Prince Regent, removed the restrictions, its inability to compete with the production of the southern part of the United States during the nineteenth century, and lastly its encouragement and renewed vigor since the opening of the present century. In regard to its present status the following quotation sums up the situation from the viewpoint of an expert:

Already, three years ago, the Government had acquired the services of Prof. Edward Green, a cotton expert from the United States, who has been working with the double object of classifying and standardizing the best cottons for plantation in Brazil, and of noting the best regions for such plantations. At the Conferencia Algodoeira (Cotton Conference) held in Rio under the auspices of the Centro da Industria in June, 1916, Prof. Green gave an address dealing with some phases of his labors, and concluded by saying:

"After three years of observation and experiment in Brazil I am convinced that this country, above any other, possesses excellent natural conditions for cotton production, and that the development of this great national resource depends only upon the adoption of a few simple measures:

"1. The selection and standardization of superior types, and the production of great quantities of selected seeds for distribution.

"2. Introduction of simple, animal-drawn cultivators, with practical instruction on their use to be given to large planters of cotton in the interior.

"3. Stimulation by the Government of all activities related to the cotton industry, and suspension for some years of all connected taxes and duties.

"Extensive propaganda in favor of cotton growing is being animated by the far-seeing and incomparable activity of Dr. Miguel Calmon. If this work is continued in all parts of the country where cotton is cultivated there is no doubt of success. The cotton production of Brazil will find itself doubled if not quadrupled in a short time, and this country will take the high place in world markets which is legitimately hers as the greatest exporter of high-class cotton."

Another great industry which is just beginning to develop along lines that will give Brazil an eminent place among the great food-producing nations is the raising of cattle and the establishment of great meat-packing plants. The recent development of this industry in Brazil and its future possibilities are dealt with at some length by Miss Elliott, and the following excerpts will serve to show her grasp of the situation:

The scientific breeders of Brazil—and there is quite a list of them—have lacked a reason for developing their work until recently. In the absence of the packing house there was no demand for beef beyond that of the *matadouros* (town slaughter-houses) and the *xarque* factories. For the *xarque* makers any class of animal would serve; a Hereford of pure blood would bring no more than a zebu unless he happened to weigh more.

Xarque making is the ancient meat-drying industry, invented by who knows what hunter in bygone ages; it is the biltong of Africa, the *tasajo* of the Argentine, the jerked beef of the north. Well salted and dried, it is good food enough, and France has not disdained to buy it from Brazil for the use of her troops in 1915-16. The southerly States of Brazil are the great supporters of cattle stocks, and there are the extensive beef-drying factories; Rio Grande slaughters over half a million head of cattle for this purpose every year, the number rising to its maximum in 1912 with 900,000 head, and chiefly ships the xarque produced to other Brazillian regions; it is the carne



VIEWS OF SÃO PAULO, BRAZIL.

São Paulo is the capital of the State of the same name, the State whose boundaries include the greatest coffee-producing area in the world. São Paulo is one of the most modern, progressive, and for its size the wealthiest cities of the Americas. It boasts a population of over 400,000 and is growing with wonderful rapidity. In the above illustrations are shown, at the top, a typical street scene in the city; center, the main building of a coffee fazenda near the outskirts; bottom, the famous Normal School of São Paulo.

secca of that beloved Brazilian dish, the feijoada, eaten all over the Union. The coastal and northern regions of Brazil, comparatively poor cattle regions, are so much dependent upon dried beef imports that the xarque industry will have a ready market in the future as in the past; but since 1914 a rival has risen up seriously threatening the old industry in prestige.

Almost simultaneously two packing houses, both in São Paulo State, began demanding cold storage space in vessels calling at Santos, and refrigerator cars on railways leading to the port. Brazil, to the astonishment of the markets, was offering chilled and frozen beef. At any other time she might have received a welcome less enthusiastic, but her offer came at a time when Europe needed every pound of meat for army use; the Brazilian product was tested by Smithfield standards, found good, and to-day has its place in overseas meat markets. It is a modest place. Beef does not yet take its stand among the "principaes artigos da exportação"—although hides have long stood in the list of nine favored names—but the statistics of complete 1916 may give it more credit.

During 1915 shipments were made in increasing amounts month by month, the total for the year reaching about 8,514 tons, with a value of 6,122 contos. The year 1916 has seen a great advance in Brazilian frozen meat sales abroad, those for the 10 months, January to October, totaling over 29,000 tons, with a value of 24,000 contos, or about £1,200,000.

The first frigorífico of Brazil was built by Paulista enterprise with Paulista capital, in the far northwest of São Paulo where the best pastures extend. The Companhia Frigorífica e Pastoril built its plant near the terminus of the Paulista Railway, at Barretos, and is headed by Dr. Antonio da Silva Prado, an energetic builder-up of his State and a man with many honors and interests. Opened in 1913, the frigorífico first supplied chilled meat to the city of São Paulo; export was not seriously considered until the war in Europe began with its demands upon world food supplies. The first Brazilian shipment of exported meat was sent to England in November, 1914, an experimental ton and a half. During the ensuing year that country took 4,360 tons, Italy over 2,000 tons, and the United States nearly the same quantity.

The figures displayed a steady rise all through 1915, January's 10 tons being quickly outclassed by April's 210 and June's over 570 tons; by November Brazil was shipping 2,000 tons a month. The standard was more than maintained as time went on; the output for the first 6 months of 1916 was over 12,000 tons, half as much again as the entire quantity for 1915, the United States taking about 2,000 tons and the allies the remainder.

This was not the output of Barretos alone. In May, 1915, another packing house started operations at Osasco on the outskirts of S. Paulo city. It is the property of the Continental Products Co., capital and personnel originating in the Sulzberger house at Chicago, and it is independent of, but has friendly relations with, the Farquhar group of interests, which include large railway control and a thriving land and cattle company.

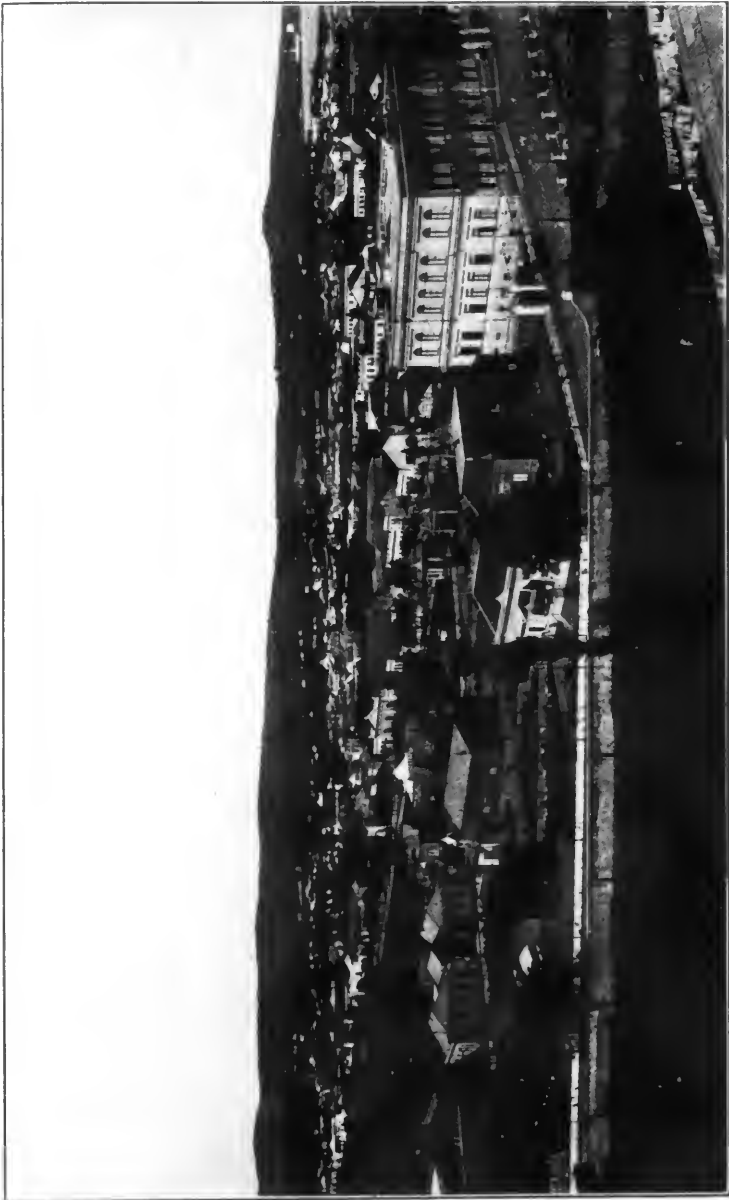
The Osasco plant is, like Barretos, an excellent specimen of its class, operating with fine up-to-date machinery and all modern packing-house devices; on the edge of S. Paulo city, separated from the railway only by a strip of open grassy country, this establishment has the advantage of a short haul for its meat. The São Paulo Railway has to carry the product but 50 miles to Santos port. On the other hand, the Barretos plant's position has the advantage of being in the heart of the best cattle country, and of getting both animals and labor at low prices; the journey from Barretos to S. Paulo, by the Paulista line, takes about 14 hours. Brazilian employees are used at both packing houses, the industry occupying about 1,000 workmen. During 1916 a third frigorífico has been opened, on the docks of Rio de Janeiro, but this chiefly performs cold-storage functions.

* * * * *



IEWS IN BRAZIL.

Top: The Santa Casa de Misericórdia (Hospital) at Santos. Bottom: The port of Rio Grande do Sul, the most southerly of the great seaports of the country.



GENERAL VIEW OF PORTO ALEGRE, BRAZIL.

Porto Alegre, capital of the State of Rio Grande do Sul, is one of the progressive cities of Brazil, having a population of 125,000. It is located at the northern extremity of the Rio Grande do Sul, and is connected by its railways with other roads leading into Brazil, Uruguay, and Argentina. The city has all the modern civic improvements—wide avenues, tree-lined streets and parks, electric light and power, and a good street car system.

The qualifications of Brazil as a future land of fine cattle are three in the main: First, her possession of an existing rebanho of 30,000,000 head; next her natural pastures and good climate which permit stock to remain in the open during the winter; third, tremendous expanses of suitable lands at moderate prices. Argentina has no natural pastures; she sows alfalfa, needs 5 acres of it to fatten 1 animal for 6 months, and is thus at an expense of \$7.50 for this purpose against Brazil's outlay of rather less than \$3.50, counting the value of the 5 acres of alfalfa land at \$300, the cost of 12 acres of Brazilian capim gordura at \$133 and interest on the two investments at 5 per cent. In regard to available territory there is no comparison; Brazil's one State of Matto Grosso could swallow the whole cattle-raising country of the Argentine, without taking into consideration Goyaz, Minas Geraes, S. Paulo, Parana or Rio Grande do Sul.

Space and climate, however, are not all that goes to make a cattle country fattening fine stock, and it need scarcely be said that much must be done before the cattle lands of Brazil can seriously compete with those of the Argentine; the time is not yet ripe for the wild pastures of Goyaz and Matto Grosso to fatten cattle in the same proportion as Rio Grande State. This State, with an area of 237,000 square kilometers, feeds about 9,000,000 head of cattle, a remarkably good showing in comparison with the premier cattle Province of Argentina, Buenos Aires, which, with a superficial area of not much more than 305,000 square kilometers, feeds 7,500,000 head.

Other industries dealt with are the preparation and exporting of herva matte; the growing of sugar cane and the manufacture of its product; tobacco; the cereals; fibers; cacao; maize, etc. The mining industry is also touched upon, and the chapter ends with a comprehensive survey of the manufacturing industries throughout the country.

Chapter VI deals with the financial condition of the Government; investments of capital of foreign nations; the Federal debts; banking facilities in the large cities, etc.

Chapter VII is a general account of what the world owes to Brazil in the way of horticultural and medicinal plants, flowers, shrubs, etc.

The last chapter gives a general outline of Brazil's foreign commerce, with various tables of statistics dealing with the country's exports and imports.

The book covers a wide scope and reveals an insight into the present conditions of the great Republic which only close observation and personal acquaintance with the people and their activities could make possible. In many respects it will be a valuable source of information in regard to the vast country with which it deals, even for those who have visited Brazil and are more or less familiar with its present condition. For those who are seeking "first aid" along this line it will prove invaluable.

C. E. A.



PROMINENT IN PAN AMERICAN AFFAIRS

GENERAL JOSÉ MANUEL PANDO, formerly President of Bolivia, died at La Paz, on June 21, 1917. In his demise there passed away a well-known and historic character of South America. For many years the general stood out as one of the leading figures in the public life of Bolivia. His brilliant achievements as a military leader and his statesmanlike and constructive administration as President of the country from 1899 to 1904 had gained for him a notable reputation and the deep esteem of his countrymen. In the field of science, as well as in official and military circles, the general had rendered a splendid service. His explorations resulted in the determination of the course of many of the rivers in the great network of Bolivian waterways, and in the discovery of the mouth of the Tambopata where it empties into the Madre de Dios River. To him also was due the credit of having named the River Heath in recognition of the explorations made by Dr. Edwin R. Heath.

As President, Gen. Pando built the first railroad constructed with public funds and initiated the movement for the construction of a system of railways, a plan which is being enthusiastically followed to this day by the present administration. During his incumbency a number of treaties with neighboring countries were negotiated amicably adjusting border questions and boundary limits.

Sr. Pando was born in La Paz December 25, 1848. He was a student at the medical department of the university at the capital when his youthful patriotism became so fired by the stirring internal events that he left the clinic and laboratory to aid in the upbuilding of the new government. As a military leader he covered himself with glory, and upon his return to civil life, he was elected senator from the Department of La Paz. From then on he had been active in official life, and traveled a great deal in Europe and in South America. He served at the head of the Bolivian commission for fixing the boundary limit with Brazil with residence at the Brazilian capital. During that time he visited in Argentina and Peru, in which countries he acquired a reputation as a diplomat and military officer. At one time the Government of Bolivia indicated its desire to name him minister to Brazil, but Sr. Pando expressed his preference to serve on the boundary commission.

Sr. Pando was a member of various scientific societies, held the rank of general in the Bolivian Army, and enjoyed the distinction of also holding a commission in the Peruvian Army by vote of the Peruvian Congress in 1913.

MANUEL SALINAS, statesman, diplomat, and distinguished public servant of Chile died at Santiago, May 15, 1917. In a public career covering a period of nearly half a century, during which time he served as national deputy, diplomat, cabinet official, and senator, he displayed remarkable qualities of leadership and statesmanship. In his official and private life, he stood out conspicuously as a man of high intelligence, unimpeachable integrity, and sterling loyalty. Salinas entered public life in 1882, at the age of 27, and during the next 45 years his name became honorably linked with the political life of the country as one of its illustrious leaders.

Salinas was born in Santiago in 1855, and in 1882 became secretary of the intendencia of Talca. In 1885 he was made intendente of the Province of Chiloe, and two years later he left to assume a similar position in the Province of Atacama. He withdrew from this post a few years later to accept the office of fiscal delegate of the nitrate fields, a responsible charge offered him by President Balmaceda. After a year in the discharge of that office, he again assumed the position of intendente, this time in the Province of Tarapaca.

Following some internal changes in the Government, Salinas was sent to France by President Balmaceda as confidential agent. Upon his return he was chosen national deputy for the Province of Tarapaca and he held that seat in the chamber for three consecutive terms. While serving in that body, he was honored with appointment as envoy extraordinary and minister plenipotentiary to Bolivia.

Many times in the course of his public service, Salinas was called upon to serve in the cabinet of various presidents. He was minister of the treasury in 1899, 1903, and 1910. In 1900 he held the office of minister of foreign affairs, worship and colonization; in 1906 he served as minister of the interior. In 1914 he was again summoned to the cabinet as minister of foreign affairs. Since 1912, Salinas occupied a seat in the Chilean Senate from the Province of Cautin.

In the long years of his service Salinas was frequently confronted with difficult and trying situations but his ability, serene and deliberate courage, and strength of purpose and ideals carried him through with commendable success. He was regarded by many as the man of the hour in times of national stress.

Lovers of music the world over have learned with sincere regret of the unexpected death of the genial and celebrated pianist, TERESA CARREÑO. Born in Caracas, Venezuela, the charming artist when



JOSÉ MANUEL PANDO.



MANUEL SALINAS.



Courtesy of The South American.

TERESA CARREÑO.



JOSÉ ENRIQUE RODÓ.

but a child was brought to the United States, where she began the triumphal musical career that gave her fame in both Europe and America.

Señora Carreño, who belonged to one of the prominent families of Caracas, was born in that city on the 22d of December, 1853. She revealed her predilection for the piano and her future aspirations in the field of musical art in her early infancy. Her father, who had been minister of finance for Venezuela, left his country when Teresa was only 6 years old, and established himself and family in New York. It was there that the little girl began her studies under the renowned pianist, Luis M. Gottschalk, and at the early age of 9 years made her first public appearance in concert given at the old Academy of Music. This appearance, which was followed by performances in Boston and other leading cities of the United States, constituted a notable triumph for the young artist and brilliantly presaged the beginning of a remarkable career. One of the most pleasing tributes paid her at this early stage of her development was an invitation to play before President Abraham Lincoln at the White House in Washington.

Early in 1866 the young artist went to Paris, where she continued her studies under such noted masters as Mathias and Rubenstein, and for the first time revealed to the European public, of which she subsequently became so great a favorite, her extraordinary talents in a concert with Vivier. About this time she also played before such great artists as Liszt, Saint Saens, Plante, and Jael, all of whom were astounded at the precocious talents of the youthful artist.

Encouraged by the applause of these eminent masters and by her successes in Paris, she undertook an artistic tour through France, Spain, Holland, and England, in all of which countries she was given most enthusiastic receptions.

Her artistic endowments were such that simultaneously with her piano studies she also cultivated her fine voice and successfully sang some of the most difficult rôles in various operas then popular in the great theaters of England and the United States. In addition to all this, moreover, she organized an opera company, whose orchestra she herself directed, which she took with her to the country of her birth on the occasion of the first centenary of the birth of Bolivar.

Her grand passion, however, was the piano, and to it she consecrated her life. Owing to her great natural talent and to her devoted and unremitting application, she came to dominate this marvelous instrument with a mastery and strength of expression and feeling almost unprecedented. The greatest European critics ranked her as a pinnist second only to Paderewsky, and as first among all women devoted to that instrument. It may be said of her that she delighted with her technique, as well as with her wonderful interpretations of

the great composers, the most cultured audiences of both hemispheres, and she became justly known as the "Valkyrie of the Piano."

It has not been very long ago since in Berlin, where she had established her permanent residence, she received the homage of the entire German musical world in a splendid banquet which was given in honor of her "golden wedding" to the piano.

Señora Carreño died in New York, the city which witnessed her first triumphs, on June 12, 1917. Among the great artists who attended the funeral rites was her only rival, and at the same time one of her sincerest admirers, Jan Paderewsky.

JOSÉ ENRIQUE RODÓ, essayist, author, and publicist, one of the foremost writers not only of his native country, Uruguay, but of the entire Latin American world, died at Palermo, Italy, May 2, 1917. The news of his death reached Montevideo on the 3d, and seldom has such a tribute of general sorrow been paid to a citizen in private life by the public press and by the various social, political, and educational organizations of the Uruguayan capital. Resolutions of sorrow and respect were passed by the various councils, boards of directors, and other governing bodies of these societies; the public libraries were closed; many of the most prominent commercial houses of the city closed their doors; and every possible mark of honor and respect offered the memory of the distinguished litterateur and patriot who had passed away so far from his native land.

Rodó was in the very prime of his life, about 46 years of age, when death so unexpectedly claimed him. His literary career began at an early age, for even at 21, when he graduated from the university, he had surprised and delighted the faculty and evoked the admiration of his friends by his dissertations on literary and historical subjects. His active literary career really began with the publication of the *National Review of Literature and Social Science*, of which he was one of the founders some 20 years ago, and in whose columns Rodó first evinced his wonderful command of the Spanish language, clear, forceful style of expression, and keenness of intellect for which he subsequently became so noted. Although in his early years he wrote most excellent verse, his greatest talent was shown in his virile and sonorous prose, especially in the form of those remarkable essays which would alone have made him famous in Spanish literature. In this particular field his most notable works were his essays on Bolívar, Montalvo, and Ruben Darío. Among his longer and more ambitious works may be mentioned such books as *Ariel*, *Motivos de Proteo*, and *Del Mirador de Prospero*. Especially notable is the first of these, dedicated to youth and filled with the noblest sentiment and purest ideals.



Photograph by Harris-Ewing.

CARLOS G. DAIREAUX



Photograph by Harris-Ewing.

JULIO DITTBORN.



Photograph by Harris-Ewing.

ALFREDO EWING.



Photograph by Harris-Ewing.

EDMUND WITTENMEYER.

In addition to his literary labors, Rodó had held various high offices and had been closely identified with the Colorado party in politics. He had been secretary of the National Library of Uruguay, professor of literature at the University of Montevideo, member of various learned bodies, and at various times was elected as a deputy in the National Congress. In the last-named capacity he established a reputation as an orator second only to his fame as a writer, and even his political adversaries all conceded his great abilities and pure patriotism. At the time of his death he had just begun his work as a representative of *Caras y Caretas*, the well-known weekly review of Buenos Aires, in the European field, and his untimely death deprived the world of what doubtless would have been the greatest of all of his contributions to the literary and artistic history of his day.

To the Argentine mission in Washington there are assigned a military and naval attaché. Col. EDUARDO RAYBAUD, whose portrait and biographical sketch appeared in a former issue of the BULLETIN, is the military attaché, and Capt. CARLOS G. DAIREAUX is the naval attaché. The captain is one of the eminent naval officers of his country and was assigned to the embassy at Washington in May, 1916. He remained at this post a little less than a year, but during this period he acquired a wide circle of friends in naval and social circles. The announcement of his return to Argentina brought forth numerous expressions of bon voyage and best wishes as well as of regret at his departure. At the time of his assignment to the post at Washington, Capt. Daireaux was attached to the office of the Navy Department at Buenos Aires as Chief of the Bureau of Appointment.

Assigned to the embassy of Chile at Washington are Commander JULIO DITTBORN, naval attaché, and Maj. ALFREDO EWING, military attaché. Commander Dittborn was born in Valparaiso, Chile, March 20, 1880, and entered the naval service at the age of 14. During the early years of his naval career he made several voyages to Europe, a trip to Argentina, and another to Australia. He was also attached to the maneuvering squadrons (*Escuadras de Evoluciones*) along the coast of Chile, and served on the hydrographic commission which charted the Chile and Guaytecan channels.

In 1906 Dittborn was named naval attaché to England and during the years 1907-8 he was detailed to observation duty in the navy of Austria-Hungary stationed in the Adriatic. The following year he was raised to the rank of captain of Corvette (*de Corbeta*) and was appointed second commander and subdirector of the school of artillery on board the battleship *Almirante Cochrane*. During the next four years he served at the following posts, viz, second com-

mander of the cruiser *Presidente Errazuriz*, and of the battleships *Capitan Prat* and *O'Higgins*; commander of the torpedo-boat destroyer *Almirante Lynch*, and afterward of the destroyers *Capital Orella* and *Merino Jarpa*. In 1914 he was assigned as naval attaché to the United States and in 1916 was promoted to the rank of captain of frigate. Commander Dittborn is a possessor of the silver medal for 20 years' service in the Chilean Navy, and is one of those who received the medal which the Argentine Government awarded to the 36 chiefs of the Chilean Navy on the anniversary of Chile's centenary of independence.

Maj. ALFREDO EWING, the military attaché, is a veteran in the ranks of the Chilean Army and has nearly a quarter of a century of service to his credit. In 1906 he was graduated as a commissioned officer on the general staff from the Higher War College of Chile. With this same rank he was assigned to the German Army to study and observe, and spent two years completing his military education and training. On his return from Europe he was made aide to the chief of the general staff, which post he held for four years; he was then appointed secretary of the army bureau of inspection. For many years he was also professor of tactics in the academy of war and the military school. In 1913 he was detailed as military aid to Col. Roosevelt during the latter's visit to that country. At the time of his assignment as military attaché to the embassy at Washington the major was acting director of the military school.

Serving as military attaché of the United States Legation at Habana, Cuba, is Lieut. Col. EDMUND WITTEMEYER. The lieutenant colonel was born in Bullford, R. I., April 25, 1862, and was appointed a military cadet in 1883. Graduating from the Military Academy at West Point in 1887, he was commissioned second lieutenant of the Ninth Infantry. In 1894 he was promoted to first lieutenant of the Fifteenth Infantry, and in 1899 he was raised to the rank of captain of the Tenth Infantry. Later that year he was returned to the Fifteenth Infantry. From 1901 to 1905 he was detailed as paymaster and at the conclusion of this assignment he was attached to the Fifth Infantry. In the interim the captain had graduated from the Infantry and Cavalry School. During the years 1910 and 1911 he served on the general staff, and in February, 1911, he was elevated to the rank of major of the Twenty-seventh Infantry. In 1914 he was assigned as military attaché at Habana, Cuba, and in 1916 during this foreign service he was promoted to the grade of lieutenant colonel.



PAN AMERICA IN THE MAGAZINES

The Pearl Island of the Pacific, by Cyrus French Wicker, former Secretary of Legation of the United States in Panama, is an interesting sketch in the Pan American Magazine (New York). While the article sets out in more or less detail the purpose of the author's visit to the islands, this feature need not be stressed. The chief interest to those not familiar with the unique industry of the inhabitants, lies in the description of the islands, the pearl fishing, and the side lights thrown on the subject. The following excerpts embody some of these entertaining accounts:

They are not located in the far-off south seas, these legendary Pearl Islands of the Pacific, out of reach of all but poets and dauntless adventurers, but at our very doors, only a few hours' sail from the Panama Canal. One has only to go 40 miles south, and a little east, from the fortifications of Taboga, the mother-of-pearl covered towers of Panama Cathedral, and the dances at the Tivoli Hotel to be lost among them. Their shadows, for those who can see, lie like little gray clouds on the horizon as one looks south from the sea wall at Las Bovedas on a clear evening; and yet they are as far away as the Fortunate Isles themselves from the gay tourist life of the Canal Zone.

* * * * *

But leave Panama for a day and come with me south as far as the horizon line, and visit there the real Pearl Islands Archipelago as known to Spaniards and pirates ever since Balboa's day, haunted with legends of buried treasure, beautiful with shores of waving palms, great curving beaches of white sand and deep blue water, unlike the muddy shallows of the Bay of Panama, where you will see carved paddles and dugout canoes, and naked Indians diving for pearls and gambling with Chinese merchants on the chances of the catch; and then believe yourself in America, if you can.

There are about 40 islands in the archipelago, with a hundred or more islets and rocks, all lying between 40 and 60 miles from Panama and the Canal Zone, in the open Pacific, but sheltered by a great southward curve of the mainland. The largest of them, called by the early Spaniards *Isla del Rey*, but now known as San Miguel, is about 12 miles long by 6 wide, and boasts of the principal thatched roofed town. The next in size—Saboga, Pedro Gonzales, San Jose, Contadora (i. e., "Treasurer," so-called from the fact that the pirates used to divide their booty on its mile-long curving beach). Pacheca, Bayoneta—are from 2 to 3 miles long by half as wide, and, where fresh water is found, are inhabited by perhaps the happiest people in the world—a people who live on coconuts and whose sole work and occupation, when they choose to follow it, is fishing for pearls.

* * * * *

We left Panama on a Saturday morning, on the twin screw gasoline launch, *Chimna*, which I had hired for the trip, there being no regular service to the islands except by sailing canoes. She was a seaworthy craft, with a flat upper deck, covered by an awning, where we lived and slept, needing no other protection in the dry season. Our crew of three blacks slept forward, or ashore; for this was no deep-sea voyage far out of sight of land, but more like a cruise among the Thousand Islands, transferred



SCENES AMONG THE PEARL ISLANDS OF THE PACIFIC.

Upper: A native village on one of the Pearl Islands. "They are not located in the far-off south seas, these legendary Pearl Islands of the Pacific, out of reach of all but poets and dauntless adventurers, but at our very doors, only a few hours sail from the Panama Canal." Lower: A fishing fleet leaving headquarters for the pearl oyster beds near Saboga Island.

to the Tropics and transfigured by a softer climate and more generous days and nights; especially the latter, with their stars. Never shall I forget sleeping on deck, a little offshore to avoid the mosquitoes, and waking just before dawn to see above waving palm trees—a pageant of celestial giants: to the south the Southern Cross and the two even more brilliant pointers; Orion with his flashing belt of jewels; the perfectly outlined triangle of Betelgeux, Procyon, and Sirius; and below them those flaming southern suns, Canopus, Fomalhaut, and Achenar. And what joy it was not entirely to lose my northern friends in this new company, but to turn and see the whole heavens ablaze from pole to pole.

It took us just five hours from Panama City to reach Saboga anchorage, the nearest point of the archipelago to the Panama Canal. This anchorage, or lagoon, is protected by five islands and a number of reefs, and affords a deep-water harbor 2 miles long by a mile wide, approached by three narrow channels from the north, east, and south.

Saboga Island, which guards the west, is inhabited and there is a little village of 80 or more reed houses, sheltering some 300 souls, on the inner side of the harbor above a beautiful beach. This is the headquarters of the pearl fishers, and we saw their boats drawn up on the sand as we approached. There was also a commotion in the village, conch shells blowing and women screaming; for a gasoline launch, unless it is that of the infrequent Government tax collector, is an almost unknown visitant.

We did not land, but sent word ashore that we desired to anchor for the night and would call officially on the alcalde in the morning, and hoped that dignitary would honor us by taking breakfast (luncheon) on board our flagship the following noon. The answer came back, together with a present of eggs, coconuts, guavas, pineapples, and I do not remember what else, that the island and its alcalde were ours. We had hoped for a gift of a handful of pearls, but I found we were still too near civilization and the Paris buyers for the natives to hand around those commodities as freely as they did coconuts.

* * * * *

We found good springs the next day when we landed to visit the alcalde. There are four of them and they give an abundant water supply the year round; the other islands surrounding the lagoon are all uninhabited on account of their having no water.

The fishing fleet had gone out before dawn and was now back again, each diver with six pearl oysters as his day's catch. They usually dive six times, bringing up one oyster at each trip; whether because more diving might be unhealthful or mere work, I don't know. Anyway, when each diver has six oysters back the fleet paddles to the village and then begins that curious daily gamble and sale of the catch to the local Chinese merchant, one of whose race is found in every Panamanian village.

This merchant sits in front of his reed store and gambles with the fishermen on the chance of there being pearls in the unopened oysters brought before him. He usually pays 50 cents a dozen, or 25 cents on the morning's catch, for the right to any pearls that may be found in the oysters. It is a pure gamble, for the great majority, of course, have none at all; but the native is in this way sure of his 25 cents, which is paid over before the oysters are opened. This operation the Chinaman performs himself, breaking the back of the oyster with his knife to do it, as the wily oyster clamps his shell tight as soon as he is touched by a human hand, and never gives up. Then he runs his thumb around the oyster, pockets the pearls, if any, and turns over the shells and the oyster to the diver.

So far the transaction has been just a gamble: 50 cents a dozen on the chance of there being pearls. Now, however, business comes in. The Chinaman buys the shells, which are as large as small dinner plates and flat, at the fixed rate of 7 cents a pound, to be sold in Panama and shipped to Paris, there to be made into mother-of-pearl novelties. The native eats the oyster, and everybody is satisfied; the native

with his 25 cents, his 7 cents a pound for the shells, and his dinner; the Chinaman with his pearls and his shells.

About once a month the Chinaman leaves for Panama to dispose of his stock, and at the end of about four years that Chinaman disappears entirely, gone back to China a wealthy man, and his place is taken by a new Chinaman bearing the same name and often the same papers as the departed, for which, doubtless, he has paid a round sum, only to sell them in turn to his successor. I have always wondered why there was never more than one Chinaman in each village, and consequently no competition. Perhaps their business Tongs take care of all that, for in such matters the Chinese are one of the most highly organized peoples in the world.

* * * * *

In the four days we spent at Saboga we cruised often about the island inclosing the lagoon, landing oftenest on Contadora, where there is a great carving beach of white coral sand fully 300 yards wide and over a mile long, in the form of a great amphitheater. Here, and with good reason, it is said that the pirates used to divide their treasure; and no more wonderful or appropriate surroundings could have been devised than that uninhabited island with its fringe of palm trees, the broad and immense amphitheater of sand, the blue and deserted sea and sky and the foreground of heavy surf. On a northern point of the island is an Indian face, carved deep into the rock and oriented on the North Star, evidently of ancient origin.

We then sailed southward among the islands, some showing a few reed huts, but for the most part uninhabited and with nowhere any sign of a harbor. It was our opinion that, except for the island of Pedro Gonzales, where a harbor could be made by building a breakwater three-quarters of a mile long, and the lagoon above described, no part of the entire archipelago could be effectively used as a naval base or even as a landing place for any considerable number of troops on account of the absence of food supplies and fresh water. The British, even in 1847, were evidently right in charting those two places with greatest care and leaving the rest blank.

After successive scenes of white beaches and surf and blue waters and palm-covered islets, we came to San Miguel, the principal town of the archipelago, as the island is the largest of the group. Here we found a famous church, the towers of which are covered with mother-of-pearl shells as closely as they can be placed together, flashing and glowing in the sunlight and seen far out at sea. It is from this church that the towers of the cathedral at Panama were copied, and it is due to Lady Mallet, the wife of the British minister at Panama, that in the recent restoration of the cathedral the towers were preserved with their original decoration. The directions were that they were to be replaced with lead and galvanized iron, the price of mother-of-pearl shell having gone up since the days of the early fathers, but through her personal appeal to the pearl merchants of Panama, chief of whom was Mr. Piza, of that city, enough shells were contributed to restore the towers to their former unique splendor.

On the façade of the church at San Miguel, where shells were lacking, large china dinner plates were inserted to fill up the gaps. Here, too, we found a Chinaman in supreme charge of the pearl industry; but as he was one well known to me (I was acting Chinese consul general at Panama some months before) we found his ruling somewhat relaxed. I "gambled" on five dozen unopened pearl oysters and found one pearl, worth perhaps \$8, in one oyster and half a handful of little seed pearls in another. No wonder the Chinese grow rich. But the fisheries are not what they were in the old days when large crates of unassorted pearls were shipped annually to Spain from these very islands, whence they derived their name, "Islas de Perlas." Scarcely half a dozen now in a year average over the \$1,000 mark, but there is always the chance of finding the oyster where the fortune lies waiting.

The natives of San Miguel live a most primitive life, scarcely ever making the voyage to Panama. They live on coconuts, papaya, mangoes, fish, and eggs, with small quantities of imported beans and maize. There are no horses and only one



THE PEARL FISHING INDUSTRY ON THE PEARL ISLANDS.

Top: The pearl fisher, incased in his diving suit, is seen at the stern of the boat about to descend to the oyster beds. Center: Modern methods of gathering pearl oysters include scientifically constructed diving suits as part of the diver's outfit. Bottom: Opening the pearl oysters to search for the hoped-for treasure.

cow on the island; but no lack of pigs, which are fattened on the meat of the coconuts, of which there is an abundance. A little grain is grown and is threshed and winnowed by hand in large wooden mortars.

Farther south still we came on tiny villages where no motor boat had ever been seen. Here the natives, Indians, came out to meet us in canoes made from solid trees burned with fire and dug out with knives. Their paddles were curiously carved about the handles, such as I have not seen anywhere in Central America, and two were of some light and tough wood unknown to me. The native from whom I bought them said that they were carved from a piece of driftwood which had attracted his attention by its lightness. Another trophy was a dry gourd, as big as a bushel basket, with a small opening in the top closed with a carved cover. This is the pearl diver's water jug. He takes it with him, filled with water, in his canoe, and when he has drunk he empties it out and stores his clothes in it while diving, so that they will not get splashed—a double use that would hardly be imagined in the North. We also saw, near Cañas Island, a two-masted pearl schooner that ran from us; a poacher, as it was then the closed season for pearl schooners equipped with diving apparatus in Panaman waters. We did not pursue, but kept on, and rounded Cocos Point, the southernmost part of the island, where there is an excellent place for a wireless station, but no safe harbor.

Without other than a general view of San Jose, the second largest island, which is without water, harbor, or inhabitants, we turned north, and after a day at Pedro Gonzales, where a harbor might be made, returned to Saboga, and thence to Panama.

The Andean Region of Venezuela, in the June number of the International Edition of Dun's Review, is a condensed account of the towns, natural resources, and topographical features of the extreme western portion of the Republic. The following reproduction gives the important phases of that section's development and its possibilities:

The Andean region of Venezuela, which lies beyond Lake Maracaibo, and of which the city of Maracaibo is the port of entry, possesses much that is of interest to the visitor. Beautiful as is all of this South American country, with its diversity of climate and scenery, it may be questioned if this region is equaled by any other part of the Republic in scenic attractions. Commercially, it is also quite important, while it abounds in natural resources not common to the country as a whole.

The Gulf of Maracaibo, which on the old Spanish maps was the Gulf of Venetia, may be regarded as the entrance gate to this Andean region. Its Indian name was Coquibacoa, but the little native houses built on piles over the water along its shores recalled to Alonzo de Ojeda, its discoverer, the famous city on the Adriatic. Later on, with the Spaniards' fondness for diminutives, the name was corrupted into Venezuela, which eventually became the name of the entire country. The superficial area of this gulf is about 16,000 square kilometers, or 1,000 more than the Gulf of Paria. Numerous small villages and fishing places are located along its sandy shores, some sheltered in small bays, but most of them exposed to the windswept waters of the gulf. Fishes of all kinds abound and great flocks of pelicans and other aquatic birds make their nests upon the white sandy dunes that are a striking feature of the coast. At the extremity of the gulf, where it narrows suddenly into the Bay of Maracaibo, lie the islands of Zapara and San Carlos, with the old Spanish fort and prison, between these two being the shallow bar over which the steamer sounds her way into the channel that curves up to the city of Maracaibo, the second most important seaport of Venezuela.

Named after the Cacique Mara, it occupies a commercially strategic position of junction between the gulf and the great Lake of Maracaibo. The country behind



VIEW OF CENTRAL SECTION OF MARACAIBO, VENEZUELA.

Named after the Cacique Mara, the city occupies a commercially strategic position of junction between the gulf and the great lake of Maracaibo. The country behind it is almost level, rising gradually to the foothills of the distant Andes, beyond the Rio de Palmer and joining it across the narrow channel that connects the lake with the gulf are the low shores of the district of Miranda and the little town of Altagracia directly opposite.

It is almost level, rising gradually to the foothills of the distant Andes, beyond the Rio de Palmar, and facing it across the narrow channel that connects the lake with the gulf, are the low shores of the district of Miranda and the little town of Altigracia, directly opposite. Its waterfront, upon which most of the commercial houses face, is crowded with hundreds of small sailing craft and canoes engaged in the lake traffic, while a single pier, built on wooden piles, affords accommodation for ocean-going vessels, the whole presenting a bustling appearance consistent with the relation of the city to the great Andean hinterland across the lake. The city is fairly well constructed, the houses of one story gaily painted, with barred windows and large doorways, through which glimpses may be had of patios abloom with tropical plants. A central plaza, graced by an equestrian statue of Bolívar, and around which are the administrative buildings and the cathedral, furnishes the usual place of evening promenade. The commerce, both import and export, is mainly in the hands of a few large houses, chiefly German and English. These concerns not only supply local trade, but a much larger part of their business consists of wholesale traffic with the interior States of Tachira, Trujillo, Merida, and Zulia, as well as with the adjoining Colombian Department of Santander.

The Lake of Maracaibo, over which all this commerce is carried, enjoys the reputation of being the largest of the South American lakes. Its perimeter exceeds 4,000 kilometers, while its superficial area is 21,616 square kilometers. Fed by the eternal snows of the Andes, as well as by the torrential rains of the tropical lowlands, a considerable number of rivers empty themselves into the lake, the most important of which are the Catatumbo, rising in the Colombian highlands, the Zulia, which is a branch of the Catatumbo, the Escalante, the Santa Ana, the Apon, and the Motatan.

To cross the lake, one may take either sailing craft or a paddle-wheel steambot at Maracaibo, the latter making regular trips to the principal ports around the lake. Of these, La Ceiba, in the State of Trujillo, is the most worth visiting; indeed it is the chief outlet for much of the Andean region. A railroad from it runs inland across the fertile llanos and circles the foothills of the sierras to the town of Motatan, thereby opening up one of the richest coffee districts of Venezuela. The entire State is mountainous, with spurs of the main Andean range running across it, and between the sierras are fertile valleys especially suited to coffee culture, while towering above them are the lofty, barren peaks called *paramos*, of which the Niquitao (4,000 meters), the Tuname (3,770 meters), and the Volcan (3,511 meters) are the highest. Down all these mountain slopes and across the rich savannahs, innumerable streams contribute their waters to the Rio Motatan, the largest of the Trujillo rivers. On one of these streams, the San Jacinto, lies Trujillo, the capital of the State, at an altitude of 800 meters. Founded about 1811 by Diego Garcia de Peredes, it was here that the famous decree of war to the death (*Guerra a muerte*) was signed by Bolívar on June 13, 1813. It is to-day a thriving community of about 3,000 people, interested principally in the coffee and tobacco industries.

Mountainous as is the State of Trujillo, the true Alpine region of Venezuela is the neighboring State of Merida. This State may well be termed the Switzerland of northern South America, except that it is a Switzerland with three distinct climatic zones, the *Tierra Caliente* of the lake coast, the *Tierra Templada* of the foothills and the mesas, and the *Tierra Fria* of the high Andean ranges. Between them are the extremes of torrid heat and perpetual cold, or rioting tropical vegetation and, upon the loftiest summits, eternal snows. This diversity of climate, moreover, is found only 8° from the Equator, Venezuela lying between 1 and 12° north.

Here the Sierra Nevada, stretching from southwest to northeast, raises its highest peak in La Columna 5,000 meters above sea level, its other summits being Humboldt, La Concha, Bompland, El Toro, El Lion, and the Paramo de conejas. Among these mountains, as also in the many branching cordilleras that stretch down toward the lake, are delightful, fertile valleys, such as the Mercujon, the Mucumbra, and the



VIEWS OF MARACAIBO, VENEZUELA.

Upper: A street scene during a Venezuelan holiday. Lower: Shipping in the harbor of Maracaibo. "Its water front, upon which most of the commercial houses face, is crowded with hundreds of small sailing craft and canoes engaged in the lake traffic, while a single pier, built on wooden piles, affords accommodation for ocean-going vessels, the whole presenting a bustling appearance consistent with the relation of the city to the great Andean hinterland across the lake."

Mesa of Merida. Here is produced much of the agricultural wealth of the State, including an excellent wheat, which is ground in mills at Murcuruba, a small town, from which a public road, rising to an altitude of 4,500 meters, leads down to Lake Maracaibo. As in all this region, there are numerous rivers in Merida, the chief being the Uribante, the Escalante, and the Santo Domingo, which is a branch of the mighty Orinoco. The Río Milla, which has its source in the Nevadas, abounds with waterfalls, some of which are indescribably beautiful.

Merida, the State capital, situated on a small plain 1,600 meters above the sea, is one of the most picturesque towns in Venezuela, encircled as it is by high mountains and overlooked toward the northwest by the snow-capped peaks of the Andes. It was founded in 1558, under the name of Santiago de los Caballeros; is to-day a bishopric, a university seat, and has a population of over 5,000. To reach this city from its lake port, Palmarito, involves five days on mule back by way of San Pedro, Cucuta, La Pueblita, and Culata. A longer and more tedious journey, starting also from Palmarito, is through the higher altitudes of the Cordilleras and up the valley of the Mucujón, a trip unrivalled, it is said, for scenic beauty in any part of near-by South America. It is planned, however, to extend the railroad across the mountains from Trujillo to Merida, thereby bringing the latter city within easier reach of the lake through the port of La Ceiba, already referred to.

The adjoining State of Tachira, bordering on Colombia, is another of the Lake States that has the Andes for its backbone. Here the highest ranges are the Paramos of Zumbador, Balallón, and Portachuelo, all of which exceed 3,000 meters in altitude. The Río Grita, navigable for a distance of some 80 kilometers and a tributary of the Río Zuila, is the principal river, although there are several other streams that contribute to the agricultural value of this region as well as to its great scenic beauty. San Cristobal, on the Río Torbes, at an elevation of 800 meters, is the capital of the State and a place of some commercial importance owing to its proximity to the Cucuta district of Colombia. A good high road from it winds over the mountains to the town of Cucuta, while there are several other roads which start at the terminus of the railroad at Uraça and traverse the mountain passes from that point to Cucuta, La Vega, and El Rosario. The State is served by a railroad which runs from Encotrados (in the State of Zuila) up the watershed of the Río Zuila to La Uraça, where transfer is made to motor trucks and mule backs for the towns in the mountains, including those of the Colombian frontier. Tachira possesses great agricultural wealth, as well as petroleum and coal deposits, the extent of which is not yet estimated.

Zuila, the most important if not the most picturesque of the lake districts and of this Andean region, is the State that has Maracaibo for its capital. Mountainous in the interior, where it shares with Colombia the same ranges of the Cordilleras and toward the south where the Merida sierras, already alluded to, overlook its lake littoral, this State is distinguished for the number and size of its rivers. The principal ones are the Catatumbo, which rises in the Colombian Andes and of which the Zuila and the Tarra are very large tributaries, the Santa Ana, the Chama, the Escalante, and the Socuy. As most of these rivers are navigable to a considerable distance inland, they furnish the means of transportation to and from the interior. Many thriving little towns are located along their banks, such as Encotrados, on the Catatumbo, and San Carlos, some 20 miles from the lake on the Río Escalante. Extensive "fincas," principally of coffee, abound along the watersheds and in the valleys of all these streams, the State of Zuila being wonderfully rich, not only in agricultural resources, but in mineral deposits, asphalt, petroleum, and salt, while much of its surface is covered with large forests of timber and dyewood trees. These many sources of wealth have as yet hardly been touched. A considerable area of the State is practically unexplored, and the wild llanos and the foothills of the far interior are still frequented by nomadic Indians, among whom the Molilonos and the Cocinas may be mentioned.



VIEWS OF MARACAIBO, VENEZUELA.

Upper: Street scene along the water front, where the large commercial houses are to be found. "These concerns not only supply local trade, but a much larger part of their business consists of wholesale traffic with the interior States of Tachira, Trujillo, Merida, and Zulia, as well as with the adjoining Colombian Department of Santander." Lower: "A central plaza, graced by an equestrian statue of Bolívar, and around which are the administrative buildings and the cathedral, furnishes the usual place of evening promenade."

Cerro de Pasco, the Anaconda of Peru, by Carpel L. Breger, in the *Financial World* (New York), is a striking account of this tremendous mining enterprise which has been developed in Peru by North American capital. The history of this undertaking demonstrates the tremendous possibilities that await capital and enterprise in the South American field, and the article is herewith reproduced in full:

The most spectacular investment in a mining enterprise in the history of the world (prior to the new Chile undertaking) was the placing of over \$23,000,000 of Hearst-Haggin-Mills cash in the opening of what are commonly known as the Cerro de Pasco mines, "at the top of the world," 14,000 feet above sea level, on the east side of the Andes Mountains, in Peru. The following brief summary of the enterprise will be interesting:

When the Haggin-Hearst group sold out their interest in Anaconda in 1895 to the H. H. Rogers-William Rockefeller group, leading to the formation of the Amalgamated Copper Co. by the Standard Oil crowd, the Haggin-Hearst forces sought about for new worlds to conquer. Their attention was attracted to certain historic silver-copper mines far in the interior of Peru. A silver-copper proposition appealed to these interests who had just pulled out of Anaconda, the greatest of modern silver-copper propositions at that time and now. The Cerro de Pasco mines had produced about 450,000,000 ounces silver from 1630, from 40,000,000 tons of silver-copper ore, mostly above the 200-foot level. The deepest workings were only 300 feet below surface. The ore was carried on llama back 3 to 6 miles to the nearest crude smelter, which used llama dung for fuel, and the bullion had been transported on llama back 200 miles to Lima. The mines occur in a basin which became very wet and the water ultimately led to the closing of the mines. In 1870 the Government of Peru constructed the \$43,000,000 Central Railway of Peru from the port of Callao, climbing to 15,000 feet above sea level, and extending to Oroya Station, only 83 miles from the Cerro de Pasco mines. Shortly after, in 1877, one Henry Meigs undertook to reopen the drowned-out mines by a long drainage tunnel 150 feet below the deepest workings. The Government gave Meigs a concession granting 20 per cent royalties on the output of mines drained by the tunnel, and the "Rumilliana Drainage Tunnel" was begun by Meigs's Cia. Empresa Socavonera del Cerro de Pasco. After a few years' work the tunnel, uncompleted, was abandoned for lack of capital.

When the Haggin-Hearst forces entered the district in the late nineties, they acquired about 730 mining claims, 1,180 *pertenencias*, or 5,900 acres of mineral land—about three-fourths of the Cerro de Pasco district. They abandoned the drainage tunnel project and sank new shafts and installed steam pumps to handle the water, and started reopening the mines entirely independently of the old gopher workings. Over 20 miles of new underground workings have been driven. The new powerful interests constructed the Cerro de Pasco Railway, 83 miles long, standard gauge, from Oroya Station, 12,200 feet above sea level, to the mines, at 14,300 feet above sea level; the company acquired two coal mining groups, 28 miles north of the mines a 26-mile branch of the railroad was run to the Goyllarisquiga coal mines, and another 11-mile branch to the Quishuarcancha coal mines; the Haggin-Hearst forces also opened up the Morococha mining district, near Oroya, which now rivals Cerro de Pasco; a great smelter was constructed at La Fundicion or Tinyachuarca, 9 miles from Cerro on the company's main line railroad; a \$1,000,000 hydroelectric power plant was constructed near Oroya, and 43,000-volt transmission lines run to the mines, smelter, and even the coal mines, the coal being used only for coke for the smelter; a coke plant was constructed, and the company even manufactures its own brick and other materials. The actual investment exceeds \$23,000,000. The properties could not be replaced today for \$30,000,000. The smelter was finished in 1906, but did not begin active produc-



VIEWS OF THE GREAT MINING PLANT AT CERRO DE PASCO, PERU.

Top: The company's main offices at Cerro de Pasco. Center: General view of the Cerro de Pasco Mining Company's plant. Bottom: The town of Cerro de Pasco, Peru, 14,500 feet above the level of the sea, where one of the greatest mining industries in the world is located.

tion till late in 1907. Up to 1916 it produced \$50,000,000 in copper, \$11,000,000 silver, and \$3,300,000 gold. It handled from 1908-1915, or eight years, 2,358,000 tons of ore, producing 342,000,000 pounds copper, 19,802,000 ounces of silver, and 154,200 ounces gold, or 144 pounds fine copper per ton, 84 ounces silver, and \$1.25 in gold. The Cerro de Pasco Co. mines produced about 30 to 40 per cent of the total, the Morococha and custom ores, the balance.

The enterprise was no sooner started and on its feet than the old and abandoned Drainage Tunnel Concession, or Socavonera Co., instituted litigation proceedings. They completed their tunnel in 1907, and put in a claim for 20 per cent royalties on the output of the Cerro de Pasco district mines, under the terms of their concession of 1877. The litigation was finally compromised on payment of a 5 per cent interest in the Cerro de Pasco Mining Co. (operating), instead of 20 per cent royalties.

The Cerro de Pasco Copper Corporation (holding) therefore owns only a 95 per cent interest in the Cerro de Pasco mines, railroad smelter, and coal mines. These mines controlled by the company produce about 40 per cent of the output. The corporation owns a 100 per cent interest in the Morococha Mining Co., which produces over 40 per cent of the production, the balance being contributed by custom ores of the Cerro and Morococha districts. The Morococha production has been steadily increasing in recent years. The Morococha subsidiary owns the San Francisco, Gertrudis, and San Miguel mines, and a half interest in the Natividad.

The Cerro de Pasco mines have about 10 years' ore reserve blocked out, averaging 85 pounds copper, 74 ounces silver, and possibly \$1 in gold per ton. The company reported as of January 1, 1916, some 3,000,000 tons of now commercial ore blocked out, containing 253,452 pounds copper and 21,745,000 ounces silver. This applies only on mines in Cerro de Pasco owned by the company and not on Morococha. The Morococha ores are higher grade, running 8 to 12 per cent copper and 7 to 10 ounces silver. The Morococha mines, too, have about 10 years' ore blocked out.

The stupendousness of the enterprise may be gauged from the fact that the mineral lands alone at Cerro de Pasco and Morococha approximate 12,000 acres, or 20 square miles, of mineral claims, and there are 70,000 acres, or a domain of over 100 square miles, of water rights, ranch lands, timber, smelter site, coal lands, etc., while the railroad employs 14 powerful American locomotives.

The Cerro de Pasco Copper Corporation is capitalized at \$5,000,000, divided into 1,000,000 shares of no stipulated par value, of which 666,666 shares are issued and 333,334 shares are reserved against conversion of \$10,000,000 of 6 per cent bonds. The bonds are convertible into stock at \$30 per share on and after November 1, 1917. A sinking fund of one-third the profits is required to retire the bonds, but it is a foregone conclusion that the bonds will be converted into stock.

J. P. Morgan interests acquired a portion of the Hearst-Haggin-Mills interest in the fall of 1915, thus leading to the incorporation of the present Cerro de Pasco Copper Corporation as a holding corporation for the Cerro de Pasco Mining Co. (95 per cent), the Cerro de Pasco Railway (95 per cent), and the Morococha Mining Co. (100 per cent).

The smelter is producing about 70,000,000 pounds copper per annum and some 4,000,000 ounces silver from its own and custom ore, at a cost around 10½ cents per pound. The normal cost is 7 to 8 cents per pound. Freight rates on blister metal to the Baltimore and Perth Amboy refineries are 2 to 2½ cents per pound above normal, owing to the shipping situation, especially with the closing of the Panama Canal. Custom ore, of course, costs much higher now on high metal prices. Powder, steel, and supplies costs are higher, too. On the other hand, the advance in silver has proved a boon.

The company earned \$8,872,579 in the first 10 months of 1916, and stands to earn about \$13,000,000 in 1917 if copper averages around 30 cents. A third of the profits must be segregated into sinking fund on the bonds, but these sums will presumably be released on conversion of the bonds into stock. It must also be remembered



Courtesy of The South American.

"CERRO DE PASCO, THE ANACONDA OF PERU."

Upper: One of the company's ore bins at Cerro de Pasco. Lower: A coal mine, about 25 miles from Cerro de Pasco, owned by the company, and which furnishes part of the fuel used in its great smelter.

that the corporation is only a holding company, and its income is only such dividends as may be paid by its subsidiaries, not the total earnings of the latter. These conditions account for the current dividend rate of \$1 quarterly being so far below actual earnings. The consolidated balance sheet showed \$8,473,716 cash, metal and receivables as of November 1, 1916, versus \$1,844,939 current liabilities. Earnings since have been about \$1,000,000 a month.

The corporation for a while in 1916 was considering entry into the Bolivian tin business, but nothing has yet developed along these lines.

The Colombian Andes, by José M. Rosales, in a recent number of *The South American* (New York), is an interesting description of the chief topographical features of the mountainous section of the Republic of Colombia. Incidentally, the writer also deals with the mineral and vegetal products of the country as well as its picturesque features. The following is practically a reproduction of the article:

The great chain of the Andes on entering Colombia divides into three ranges that run in a northerly direction and end upon the shore of the Caribbean Sea. At the starting point, as it were, there is an elevated plateau, that of Tuquerras, 10,000 feet high, surrounded on all sides by peaks of 16,000 feet, and three active volcanoes.

The western range follows the Pacific coast with a medium elevation of about 6,000 feet, and ends in the savannahs of Bolivar.

Some 100 miles to the north of Tuquerras the central range presents a most complicated knot of crests, summits, and *paramos* inclosing a small plateau, where the sources of the Cauca and Magdalena Rivers are found. The tiny springs come out from the same lagoon, or rather a half frozen pool, and yet these rivers, as you can see in the relief map, are separated by a stupendous wall of the central Andes until they mix their waters again quite close to the sea. Some few yards from the lagoon already referred to, out of a shallow marsh, runs the Caqueta, a tributary of the Amazon, and yet a little farther we have the fountains of the river Patia which flows to the Pacific and breaks through the western Cordillera by a gorge, the sides of which rise 8,000 feet above the river.

We have, then, in this mountainous knot, shaped like the figure 8, the most interesting place in the Cordilleras, being equally the true axis of all our Andean system.

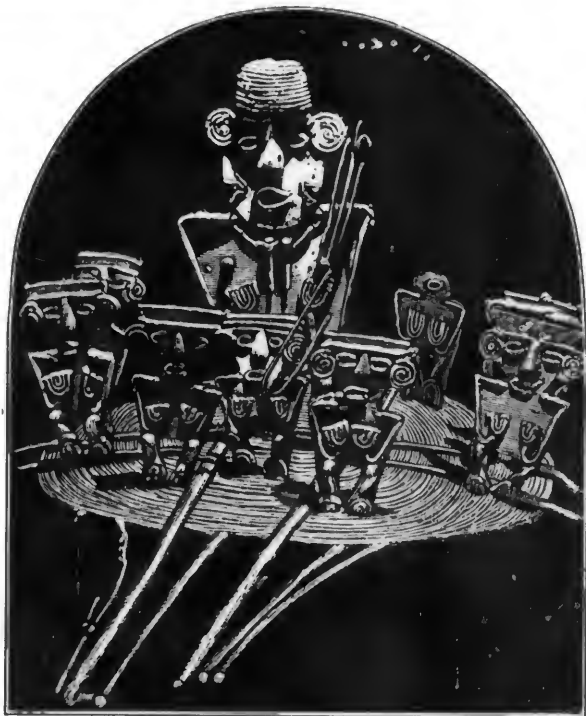
On the central range, the most imposing of the three, the highest peaks of the Andes north of the Equator may be found: Huila, 18,000 feet; Ruiz, 17,000 feet; Tolima, 20,000 feet; Hervo, 18,000 feet. All of these of course have icy tops as the snow limit in the tropics is 13,500 feet. Tolima is covered with nearly 6,000 feet of snow from the summit down.

From the spurs of the eastern Cordillera in clear weather the mighty cone of Tolima, with Mesa de Herveo a little to the north, is plainly visible, and is really a glorious sight.

After the heights of Herveo the Cordillera decreases in altitude and finally spreads like a fan to form the most mountainous district of Colombia, the mining region of Antioquia.

The eastern range attains the greatest elevation in Sumapaz, 15,000 feet, and Chita, 17,000 feet: between these two summits the Cordillera widens to hold the plateaus of Bogota, Ubaté, and Sogamoso, about 9,000 feet high and measuring, each one of them, some 40 miles long by 30 miles wide.

These fertile and extensive table-lands, with the adjacent temperate regions, were once the seat of the Empire of the Chibchas, that Indian nation that had the third place in America, ranking next after the Aztecs of Mexico and the Incas of Peru. The Chibchas numbered about 1,000,000 inhabitants and their country equaled in area the kingdoms of Belgium and Holland. This was the land of *Eldorado* so much sought by the *Conquistadores*, and the ceremony of which we all have heard so much



A GOLDEN RELIC OF THE CHIBCHAS.

The Chibchas, who once dominated the extensive tablelands of Colombia described by Señor Rosales, were quite skilled in metal working. The golden ornament pictured above seeks to reproduce the ceremony of "El Dorado," and represents the gilded canoe being rowed to the center of the Lake of Guatavita on a balsa, preparatory to taking his annual dive into the waters. The ornament is of pure gold, weighs 262 grams, and is 9½ centimeters in diameter. It is owned by a gentleman in Bogota.



LAKE GUATAVITA, COLOMBIA.

It was into this lake that the Chibchas are said to have annually thrown golden ornaments, emeralds, and other treasures in connection with the ceremony of "El Dorado." The above illustration shows the cut made during the sixteenth century in the attempt to drain the lake in order to get at the sunken treasures. The lake occupies the crater of an extinct volcano, is almost circular in shape, has a diameter of about 300 meters, and at the time of the Conquest was about 50 meters in depth. Some years ago it was entirely drained, but only a few golden objects, some beads specimens of ceramic art, etc., were found in the collected mud of the bottom.



THE FALLS OF TEQUENDAMA, COLOMBIA.

About 13 miles from the capital the River Bogota leaps over a cliff some 470 feet high and forms one of the most picturesque waterfalls in South America, whose tremendous water power is being utilized in furnishing electric light and power for the capital.

took place in the small Lake Guatavita, which occupies the circular crater of an extinct volcano.

* * * * *

Upon the southern plateau is Bogota, the capital of Colombia, with over 150,000 inhabitants, built by the Spaniards in 1538. It is a fine city, possessing the modern commodities of civilized life, yet with that dignified character and peculiar charm of the old Spanish cities, whose streets tell of historical and remarkable deeds.

Bogota was the first place in South America where a branch of the Royal Academy of the Spanish language was established, and it is generally recognized as the place in America where the mother tongue is spoken with the greatest purity. On this account, as well as for the famous university, its illustrious college of El Rosario, 350 years old, its large number of colleges, schools, academies, and its literary movement, it has deserved the name of the Athens of South America. The climate of Bogota and surrounding regions is delightful, as the temperature is only from 60° to 65° all the year round.

Bogota is connected by a railway with the Magdalena River, a splendid work of engineering, as the land attains an elevation of nearly 10,000 feet.

These plateaus, although separated from each other by transverse regions of more or less elevation, are joined together by a fine automobile road that has been built at a great expense right across the uplands with a length of about 300 miles.

The opening of the Andean ranges to the north thus forming a natural pathway for the northeastern winds blowing from the Caribbean Sea, and the rising of the eastern mountains right in front of the trade winds, account for the great humidity with which our mountains are saturated.

Hence the exceptional fertility of our Cordilleras and the abundance of navigable rivers running to all points of the compass. Then there are, of course, thousands of streams leaping down the mountain sides, useful not only for watering plantations, but because they furnish power for mills and electric plants—a power so handy and cheap that it is possible for the poorest and smallest villages in Colombia to be lighted by electricity, as in many instances is the case to-day.

The minerals of Colombia are of all sorts and very abundant. Gold is found in the central range, and there are also rich alluvial deposits around the rivers Cauca, Nechi, and in many other places.

Colombia has within her confines not only the most valuable of commercial minerals, but she has at least two—emeralds and platinum—which single her out among the mining countries of the world.

For many years after the discovery of platinum it was considered valueless, no means being known to work it. In 1788 the King of Spain offered to pay for it at the rate of \$2 per pound; to-day it is worth \$100 an ounce, and we export about 2,000 pounds a year.

The flora of the Colombian Andes depends entirely on the climate, which varies according to the different elevations. To travel from the foothills to the summit of the Cordilleras is like going from the Equator to the Arctic Circle, so that practically every zone of cultivation is embraced. There are three distinct climates, known as *tierra caliente* (hot lands), *tierra templada* (temperate lands), and *tierra fria* (cold lands). The hot lands include a tropical zone extending from the sea level up to about 3,000 feet, and a subtropical one extending from 3,000 to 5,000 feet high. This is the land of palms, of which we have 1,100 species; the Ceibas, the giant tree of the Cordilleras; the Tagua, or vegetable ivory; cacao, tobacco, cotton, sugar cane, and all the tropical fruits such as oranges, lemons, bananas, pineapples, guabas, mangoes, etc.

Nothing is more impressive than a tropical forest in the lowlands of Colombia. Here are gigantic trees to which lianas, or bush ropes, are attached as if they were the stays of a vessel's mainmast, tall and graceful palms, all sorts of medicinal and aromatic plants, orchids that are a wonder of color, and a mass of wild, luxuriant



Courtesy of The South American.

THE PRESIDENTIAL PALACE AT BOGOTA, COLOMBIA.

The home of the President is one of the handsomest buildings at the capital. Stately and dignified, it is one of the attractive features of the city.



THE POST-OFFICE BUILDING AT BOGOTA, COLOMBIA.

The postal department has about 700 post offices distributed throughout the country, and these handle approximately 7,000,000 pieces of mail matter per year.



FACULTY OF LAW AND POLITICAL SCIENCE, BOGOTA, COLOMBIA.



CENTRAL SCHOOL OF ARTS AND CRAFTS, BOGOTA, COLOMBIA.

vegetation inhabited by birds of the most brilliant plumage, bugs that look like animated gems, blossoms and flowers of scarlet, purple, and yellow that make the forest appear as if it were all ablaze.

In the subtropical regions the cultivation of coffee replaces that of cacao on the zone level. Colombia is the second coffee-exporting country after Brazil. Last year we exported 140,000,000 pounds of coffee, and the crop this year was even larger. The quantity as well as the quality of Colombian coffee comes from the fact that, as I have observed before, we have not only one chain, but three chains of Andes, or rather four with the Cordilleras of Baudo, not to mention the Sierra Nevada, and as coffee grows only on the slopes of the mountains, we have practically many vast tracts of land well adapted for its cultivation. On the other hand, coffee requires with a subtropical temperature plenty of humidity and shade, with both of which the Colombian Andes are well endowed; hence, the unequalled flavor of our coffee.

The scenery along the mountain parts of our Andes is an everlasting panorama of rarest beauty and sublimity such as no one could describe, especially the sight obtained from the cold uplands down into the sunny valleys of the hot lands.

An American traveler in the Cordillera, who was in Colombia some five years ago, writes as follows:

It is not an exaggeration to say that in our journey from the foot to the summit of the Andes, we passed in rapid review some of the earth's grandest and most entrancing prospects. Sometimes I was reminded of the mountains and valleys of the Alps, at others of the peaks and canyons of the Rocky Mountains. Some cataracts recalled the waterfalls seen leaping from the lofty precipices of Alaska, others those that add such a charm to the manifold wonders of the Yellowstone.

But the Andean views can always claim a superiority over all northern scenes of a similar character. In the marvelous setting afforded by the ever verdant and exuberant vegetation of the tropics, the higher we ascended above the lowlands, the less dense became the forest, and less luxuriant the vegetation. But although the giants of the forest were no longer visible, there was little diminution of the splendors of the floral display along our paths. In one place, particularly, we were surprised beyond measure to find the whole side of a mountain spur covered with a glorious mantle of immaculate white lilies.

The Andes possesses within its mighty folds many natural wonders, but doubtless the most remarkable of them all is the cataract of Tequendama located on the river Bogota. A ride of 12 miles on the Southern Railway takes the tourist to the end of the plateau and then alongside of the upper rapids to the Charquito, a place where the river opens as if it were a lake and where the electrical plant that supplies Bogota with light and power is situated.

Looking down into the depths of the great chasm it appears to be almost entirely closed by walls of titanic masonry owing to the level course of the surrounding strata. A fall of 40 feet precipitates the whole column of the river on to a ledge of the rock, from whence it bounds out without touching the rock again into the cauldron 500 feet below.

The river a little above the falls is 160 feet wide, but just on the edge it narrows to 60 feet. Niagara is, of course, on a much larger scale, and so is Iguazu in Brazil, but Tequendama is the only cataract in America that presents such a height combined with such a volume of water.

Herbert Adams is the subject of the April, 1917, installment of the "Sculptors of the Americas" series appearing in the Spanish edition of the BULLETIN. The following is the English version:

Herbert Adams, President of the National Sculpture Society, and one of America's foremost leaders in art and sculpture, is generally recognized by students of art as a master, almost unequalled, in a certain form of sculpture as rare as it is exquisite—the creation of beautiful busts of women. This judgment, in fact, is freely ex-



Photograph by Harris-Ewing.

BUST OF SAN MARTIN IN THE PAN AMERICAN UNION BUILDING,
WASHINGTON, D. C.

In the Gallery of Patriots of the Pan American Union building is this beautiful marble bust of San Martín by Herbert Adams. It is regarded as one of the finest likenesses of this great South American that has ever been chiseled in stone, bronze, or marble.



THE PRATT MEMORIAL ANGEL, BAPTIST EMMANUEL CHURCH, BROOKLYN, N. Y.

This figure, in the round, was modeled a few years before Adams was commissioned to make the Pratt Memorial Tablet, described in the article. It is a work of gratifying purity and elevation.



THE WELCH MEMORIAL, AUBURN THEOLOGICAL SEMINARY, AUBURN, NEW YORK.

An impressive panel in the marble triptych of the memorial. The deceased minister, to whose memory the work is dedicated, is pictured in the central panel (not shown here) at half length as he appeared in the pulpit. Upon either side are kneeling figures bearing churchly attributes. The perils and pitfalls of low relief have been avoided with consummate skill, and the result is a joy to the eye as well as to the intelligence.

pressed by Lorado Taft, himself a sculptor of genius and note. Adams, continues the commentator, is an accomplished sculptor and knows every branch of his art. There is, however, nothing so very distinctive in his figures, whereas in his female heads he transcends almost everyone known in modern sculpture. The delicately refined sentiment of the sculptor, product of a naturally sweet and modest temperament, has discovered its fittest expression in flowers and in the flower-like forms of women and children, influenced in its manner by decorative feeling. That he is without rival in the United States and even unsurpassed in France is the verdict of many critics.

From his earliest years Adams had desired to be a sculptor. He came from an old New England family and was born at West Concord, Vt., in 1858. He received his general education in the grammar and high schools of Fitchburg, Mass., where he also passed his boyhood. This training was followed by special studies at the Worcester Institute of Technology and at the Massachusetts Normal Art School. Then followed a period of five years in Paris, where he studied under Mercié, the pupil of Falguière. During the years spent in France he studied in the galleries and frequented the Louvre not only for the sculpture but also for the paintings.

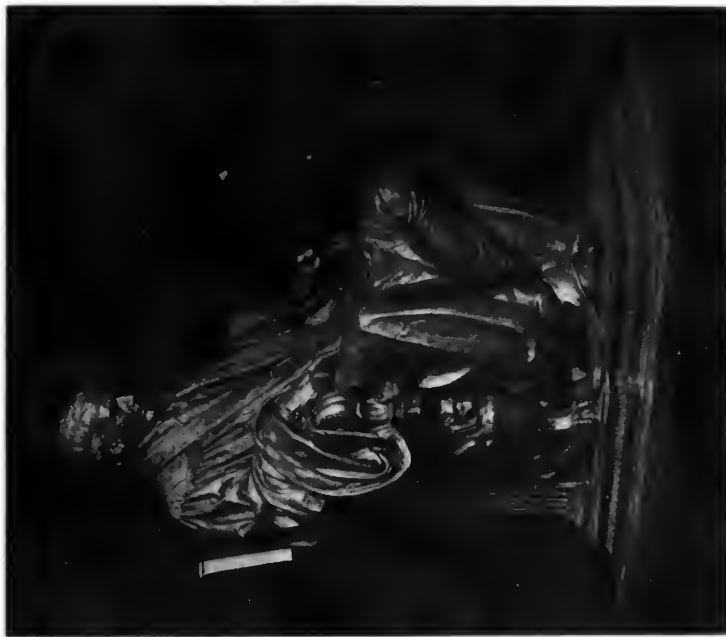
That the paintings which he saw at the world-famous galleries had a very marked influence upon his technique and motives as a sculptor one can scarcely doubt. His early works show more feeling for the harmonic rendering of light and shade and for the decorative treatment of the surface than for the structure and character of form. They reveal likewise a specialization in sentiment, quietly intense in character, and tinged frequently with enigmatic suggestion, so thoroughly suggestive of the Italian sculpture and painting of the fifteenth century.

While in Paris Adams produced two notable pieces of sculpture—a portrait bust of the young lady who afterwards became his wife, and a fountain for the city of Fitchburg showing a bronze group of two boys at play with some turtles. Upon his return to the United States, in 1890, he was engaged as instructor in the Art School of Pratt Institute, Brooklyn, N. Y. Here he spent about eight years, during which time he received a number of important commissions, which added to his skill and reputation. Among these was the Pratt Memorial, a tablet modeled for a church in Brooklyn, N. Y. At the top of this memorial is a winged head symbolizing the angel of the Resurrection, and at the foot a head without wings representing the Sleep of Death. The faces are very beautiful, the expression being chiefly centered in the eyes. The chastity and serenity of the faces are echoed in the floral borders so richly patterned along the panels. The artist has gone to nature for his models and reveals how exquisitely he can use flower forms as motive for decoration. The Pratt Memorial Angel is



THE TYMPANUM ABOVE THE BRONZE DOORS, SAINT BARTHOLOMEW'S CHURCH, NEW YORK.

In commenting upon the modern, virile, and rather worldly expression of this Scriptural subject, Taft, the sculptor, remarks: "It is hard to be naïf to order, and Mr. Adams has prudently compromised with the advance of civilization. He has created something beautiful on old-time lines; he has even kept the fragrance of the fifteenth century; but he has been wise enough to acknowledge that this is a tableau, a dream, and not the reality. His honesty, which may have been inevitable, disarms criticism, and we can enjoy without stint the grace, the tenderness, and the very real if unobtrusive originality of the relief which lies to so great an extent in the personal note of its workmanship."



BRONZE STATUE OF CHIEF JUSTICE JOHN MARSHALL, CLEVELAND COURTHOUSE, CLEVELAND, OHIO.

In these works Adams has given expression to the two distinct characters represented. In John Marshall, the great jurist, he has portrayed the rugged power and force characteristic of the man, while in Richard Mansfield, the eminent actor, he has accentuated the refined temperamental quality of the artist.



PORTRAIT OF RICHARD MANSFIELD IN THE NATIONAL ACADEMY OF DESIGN EXHIBITION, NEW YORK.

In John Marshall, the great jurist, he has portrayed the rugged power and force characteristic of the man, while in Richard Mansfield, the eminent actor, he has accentuated the refined temperamental quality of the artist.



Photo by Harris-Ewing.

THE McMILLAN FOUNTAIN, McMILLAN PARK, WASHINGTON, D. C.

In its massing, charm, and beauty there are few group figures in the Nation's Capital to compare with this work of Adams. Each figure is poised just a little differently from the next, and the graceful sweeps of the lines in the body, hands, and feet of the forms reveal the sculptor in his most favored works.

another work of gratifying purity and elevation. The whole effort is quick with fragrant and fresh appeal, and one critic observes that no plastic decoration has been produced in the United States which can approach it in beauty; perhaps not even in the actual beauty of the ornamental forms, certainly not in the sentiment of pure and holy calm which it exhales.

Another work which the sculptor produced during this period was the Hoyt Memorial tablet, designed for a New York church. The figures in relief are of singular charm and this work won much praise at an exhibition of the National Sculpture Society. Then mention should be made of his contributions to the Congressional Library—namely, the bronze doors representing "Writing," and the bronze statue of Prof. Joseph Henry, standing in the rotunda. Following these came the Welch Memorial, a work in marble made for the Auburn Theological Seminary, Auburn, N. Y. This conception consists of a marble triptych, in which the deceased minister is pictured half length, as seen in the pulpit, upon the central panel, while kneeling figures are shown bearing churchly attributes upon either side. The Jonathan Edwards Memorial, a bronze relief created for a Massachusetts church; the Bulfinch Memorial tablets in bronze adorning the Boston Statehouse; the bronze statue of the type founder Richard Smith, of Philadelphia; and the several beautiful though ephemeral works, the colossal nude "Light," which crowned the electric tower at the Buffalo Exhibition, and the graceful "Victories," which lined the approach to the Dewey Arch in New York, include his more important efforts.

During this period Adams also designed the bronze doors for St. Bartholomew's Church, New York. These are elaborately decorated with Scripture subjects in high relief. Above them a semicircular tympanum pictures the Madonna and Child within a wreath held by two kneeling maidens. The inspiration of this relief, which is a work of great delicacy and tenderness, will be traced by many to Luca della Robbia. The faces in this concept, however, treated so simply as to be almost classic, have more complex mentalities than were ever found in Della Robbia's glorified peasants. Though physically naïve, they have not only souls but a fair share of worldly wisdom behind their placid features. If, on the one hand, the figures seem to lack a certain touch of the sculptor's usual spirituality, on the other hand they reveal an atmosphere of modernity and virility which reflect another side of the sculptor's character. Regarded from the point of view of an architectural decoration it is unusually distinguished with admirable appropriateness of lines and masses to the space, a truly architectural feeling, and a distribution of light and shade characterized alike by richness and delicacy.

In the bronze statue of Chief Justice of the Supreme Court John Marshall, which adorns the courthouse at Cleveland, Ohio, and in the



STATUE OF WILLIAM CULLEN BRYANT FRONTING THE NEW YORK PUBLIC LIBRARY.

Adams has imbued a spirit of dignity and sympathetic tenderness in his treatment of the poet Bryant. The poet is poised easily in his seat, one arm resting on the chair and the other on his lap holding a number of manuscripts. The tone of noble reflection on life and nature which one finds in Bryant's poems is also found in the expression which the sculptor has given to this statue.



PORTRAIT BUST OF THE AMERICAN ACTRESS, JULIA MARLOWE.



THE HAWLEY MEMORIAL AT THE STATE CAPITOL, HARTFORD, CONN.



Courtesy of Sr. Carbone of "El Dia," Montevideo.

SR. DR. ISIDRO FABELO, MINISTER OF MEXICO, LEAVING THE GOVERNMENT PALACE AT MONTEVIDEO, AFTER PRESENTING HIS CREDENTIALS TO THE PRESIDENT.

In the carriage, sitting at Minister Fabelo's left, is Sr. Don Fermín Carlos de Yeregui, official introducer of ministers and chief of the division of diplomatic affairs of the Uruguayan foreign office. The official reception of Minister Fabelo by President Feliciano Viero was attendant with all the usual ceremonies of such occasions. The minister and the official introducer, accompanied by Col. Don Bartolomé Sanguinetti, aid-de-camp to the President, were conveyed to the Government palace in an official carriage, escorted to and from the legation by a troop of cavalry from the historic First Regiment.

portrait panel of one of America's finest actors, Richard Mansfield, the sculptor's breadth and versatility are strikingly apparent. In the one the artist has expressed the powerful and vigorous figure of the great statesman and jurist, while in the other the refined temperamental face of the actor is sympathetically delineated. The statue of William Cullen Bryant, fronting the New York Public Library, is another work in which Adams has imbreathed his own artistic spirit into that of the poet's figure.

The McMillan Fountain, standing in McMillan Park, Washington, D. C., is a gem of sculptural achievement and reveals Adams at his best in the creation of the female head and figure. The exquisite charm and beauty of the group of figures supporting the superimposed basin evoke spontaneous admiration. The attractive facial expressions, the soft, easy, and graceful lines of the forms, and the harmonious massing of the figures, each poised differently, sustain the sculptor's reputation in this particular branch of sculptural endeavor.

The bust of the American actress, Julia Marlowe, shown in the illustrations, is one of a number of similar efforts which Adams exhibited at the Pan American, Buffalo, and other expositions. These female busts demonstrate the truly artistic temperament of their author. It is in his choice and treatment of the heads that he reveals his true personality. It is as impossible for him to represent what is ungracious and unrefined as it is for him to be crude in workmanship. Adams, moreover, has been able to make use of the art of coloring in his sculptured busts with so choice a feeling as to give the finished products a quality of very rare distinction. This is especially noteworthy since the practice of coloring sculpture, though dating back to earliest times, is at present in use only in oriental countries, while here in the Occident it has been abandoned, and is not regarded with favor by artists or sculptors. But Adams's effective use of this color work is favorably received. If in modeling the portrait of a woman the artist feels that there is an expression in the eyes or latent in the curve of the lips which to him summarizes the impression of the subject's character, he resorts to color either in the eyes or lips, or perhaps in the shadows of the hair, in order to emphasize this or that certain trait or striking characteristic.

Mr. Adams's busts are conceived as works of art, complete in themselves, as bust portraits are conceived by good painters. The face is emphasized as the center of interest, and other parts accentuated with diminished force according to their distance from this focal point. The accompanying illustrations afford the student a much better opportunity to admire the art of Herbert Adams than pages of description, and a review of the variety and versatility of the sculptor's works with an appreciation of its charm and beauty will explain why Herbert Adams occupies such a high position among the world's great contemporaneous sculptors.



Photograph by Harris-Ewing.

SENHOR JOSÉ FRANCISCO DE BARROS PIMENTEL.

Minister of Brazil at Caracas, Venezuela.

Minister Pimentel entered the diplomatic service of his country in 1904 with the rank of second secretary, and the following year he was assigned to duty in the Department of State at Rio de Janeiro. After a few months there he was transferred to London. In 1908 he acted as Chargé d'Affaires of Brazil in Holland, and the next year was sent to Caracas, Venezuela. His next post was the United States, to which he came in 1910. While in Washington he was promoted to first secretary in 1913. From Washington Senhor Pimentel was sent to Tokyo, Japan, where he served as Chargé d'Affaires. His next assignment was to Mexico, but before he reached this new charge he was promoted to the rank of Minister Resident and assigned to the legation in Venezuela.

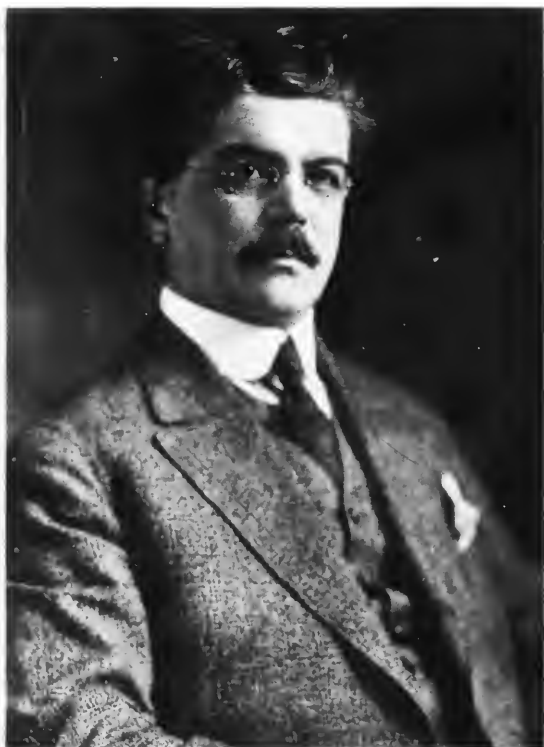


Photograph by Harris-Ewing.

WARREN D. ROBBINS, ESQ.,

First Secretary of the U. S. Embassy at Buenos Aires, Argentine Republic.

Mr. Robbins was born September 3, 1885, and after receiving his preliminary education at the Groton School in Groton, Mass., he entered Harvard University, graduating therefrom in 1908 with the degree of A. B. The next year Mr. Robbins commenced his diplomatic career as private secretary to the Ministers to Portugal and Argentina. In 1911, after formal examination, he was appointed third secretary of the American Embassy at Paris. On April 24, 1914, he was promoted to second secretary of the Embassy at Mexico City, but he did not assume the duties of that post. The following month he was appointed secretary of the Legation at Guatemala and served in that capital until January 26, 1916, when he was detailed to duty in the Division of Latin American Affairs in the State Department at Washington. In July, 1917, Mr. Robbins was named first secretary of the Embassy at Buenos Aires.



Photograph by Harris & Ewing.

SEÑOR DR. ALFONSO DELGADO.

First Secretary of the Legation of Colombia at Washington, D. C.

Dr. Delgado, who is a native of Popayan, graduated from the School of Law of Bogota. Among the positions he has held are those of consul of Colombia in New Orleans and chancellor of the consulate general of Colombia in London.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED UP TO JULY 15, 1917.¹

Title.	Date.	Author.
ARGENTINA.		
Booklet "El Intercambio Economico de la Republica Argentina en 1916."	1917, Apr. 14	W. Henry Robertson, consul general, Buenos Aires.
Prohibited exportation of wheat and wheat flour.....	Apr. 14	Do.
Coal to be taken by steamers leaving Argentina.....	Apr. 20	Do.
Project for municipal slaughterhouse postponed.....	Apr. 24	S. Reed Thompson, vice consul, Rosario.
Changes in warehousing and handling charges of goods entering Argentina.	Apr. 27	W. Henry Robertson, consul general.
Judicial decisions on cancellation of mortgages and mortgage bonds.	Apr. 28	Do.
War risk and e. i. f. clause.....	...do.	Do.
Proposed alcohol and tobacco monopoly in Argentina.	Apr. 29	Do.
Alleged discovery of coal.....	May 2	Do.
Changes in tariff on petroleum and products.....	...do.	Do.
New Portland cement factory in Argentina.....	May 3	Do.
Argentine minerals.....	...do.	Do.
Completion of dry dock at Puerto Militar.....	May 4	Do.
Additions to annual report on commerce and industries, 1916.	Apr. 7	William Dawson, jr., consul, Rosario.
Imports and movements of shipping at port of Buenos Aires, first quarter of 1917.	Apr. 13	W. Henry Robertson, consul general, Buenos Aires.
Destination of principal exports for first quarter of 1917.	Apr. 14	Do.
Cereal exports from Bahia Blanca, first quarters, 1915-1917.	...do.	Do.
BRAZIL.		
Construction of new packing house at Santos.....	Apr. 18	A. L. M. Gottschalk, consul general, Rio de Janeiro.
Wolframite in Brazil.....	Apr. 19	Do.
Sugar industry in Sao Paulo.....	Apr. 20	Chas. L. Hoover, consul, Sao Paulo.
Production of Indian corn in Sao Paulo.....	Apr. 27	Do.
Cacao industry.....	Apr. 29	A. L. M. Gottschalk, consul general, Rio de Janeiro.
Telephone directory.....	May 3	Samuel T. Lee, consul, Rio Grande do Sul.
Copy of "Estatistica da Instrucao," Vol. I.....	May 10	A. L. M. Gottschalk, consul general, Rio de Janeiro.
Modern sanatoriums in Brazil.....	May 12	Do.
Delivery of print paper to newspapers in Brazil.....	May 25	J. B. Stewart, vice consul, Pernambuco.
CHILE.		
Population of Chile and of the principal cities.....	Apr. 26	L. J. Keena, consul general, Valparaiso.
COSTA RICA.		
Cacao in Costa Rica.....	May 18	Benjamin F. Chase, consul, San Jose.
Annual report on commerce and industries for 1916....	May 21	Do.
DOMINICAN REPUBLIC.		
New sugar estate, Barahona district.....	May 23	Clement S. Edwards, consul, Santo Domingo.
ECUADOR.		
High cost of living in Ecuador.....	May 9	Frederic W. Goding, consul general, Guayaquil.
Guayaquil market report for April.....	May 10	Do.
Suspension of Ecuador's new custom law.....	May 21	Do.
HONDURAS.		
Rigid iron conduits for electrical installations.....	May 21	Walter F. Boyle, consul, Puerto Cortes.
Food products from Puerto Cortes district.....	June 8	Do.

¹ This does not represent a complete list of the reports made by the consular officers in Latin America, but merely those that are supplied to the Pan American Union as likely to be of service to this organization.

Reports received up to July 15, 1917—Continued.

Title.	Date.	Author.
MEXICO.		
Oil report for February and March, 1917.....	1917. Apr. 10	Claude I. Dawson, consul, Tampico.
Receipts of Vera Cruz customhouse for April, 1917.....	May 4	William W. Canada, consul, Vera Cruz.
Hay.....	May 11	Do.
Petition for irrigation privileges.....	May 15	C. C. Woodward, consul, Matamoras.
Thefts of merchandise imported from Vera Cruz.....	May 19	William W. Canada, consul, Vera Cruz.
Compilation of principal industries and products in consular district.....	Undated.	William P. Blocker, consul, Piedras Negras.
Receipts of Vera Cruz customhouse for May, 1917.....	June 2	William W. Canada, consul, Vera Cruz.
PANAMA.		
Registration of bills of credit.....	Jan. 11	A. G. Snyder, consul general, Panama.
Panamaman legislation—Abstract of laws passed by last National Assembly.....	May 22	Do.
Express company establishes office in Colon.....	May 23	Julius D. Dreher, consul, Colon.
Annual report on commerce and industry, 1916 and 1915.....	June 1	A. G. Snyder, consul general, Panama.
Hunting laws, etc., in Panama and Canal Zone.....	June 1	Do.
PERU.		
Peruvian cotton statistics for years 1915-16.....	May 8	William W. Ifanille, consul general, Lima.
"American Society of Peru" organized at Lima.....	May 18	Do.
SALVADOR.		
Construction work.....	June 29	Francis M. Sack, vice consul, San Salvador.
URUGUAY.		
Government seeks to increase oat production.....	Apr. 28	William Dawson, jr., consul, Montevideo.
Market for motion-picture films.....	Apr. 30	John C. Terry, vice consul, Montevideo.
Tariff on silk goods in Uruguay.....	May 3	William Dawson, jr., consul, Montevideo.
VENEZUELA.		
Venezuelan mining notes.....	May 28	Iomer Brett, consul, La Guaira.
Venezuelan production of foodstuffs.....	May 30	Do.
Changes in Venezuelan port charges.....	June 1	Do.
Market for motion-picture films.....	June 12	Frank Anderson Henry, consul, Puerto Cabello.



ARGENTINE REPUBLIC

The engineering section of the department of agriculture of the Argentine Government estimates the production of PETROLEUM in the Comodoro Rivadavia district in 1917 at 200,000 metric tons. The oil already stored at the port in the zone referred to is 45,000 tons. The Argentine Government has vessels engaged in the transportation of this oil from Comodoro Rivadavia, which have a capacity of about 30,000 metric tons of petroleum a month.—According to "La Razon," a daily newspaper of Buenos Aires, an American refrigerating company will erect a large PACKING HOUSE and cold-storage plant in the vicinity of Rosario, Province of Santa Fe. The provincial legislature has enacted a law exempting enterprises of this kind established in that province from the payment of taxes. The establishment referred to will employ several hundred people at the beginning of its operations.—Analyses by the department of public works of samples of COAL from the recently discovered Chubut mines have proved very satisfactory. A larger consignment of this coal has been made, so as to conduct an actual test of its practical value as a fuel. The Government will also analyze coal from the Mendoza mines, and has arranged for the State Railway at Tucuman to test 60 tons of this coal.—Statistics compiled under the direction of the department of commerce and industries of the Argentine Government show that there are 25 BREWERIES in the Republic, with an estimated annual output of 770,859 hectolitros (hectoliter = 26.42 gallons). The capital invested in this industry aggregates 64,248,465 pesos, currency (paper peso = \$0.425). The sale of brewery products in 1916 amounted to 26,299,556 pesos, currency, and the number of people employed was 3,114, and the wages paid 4,069,242 pesos.—It is estimated that there are now 50,000,000 JUTE SACKS available in the Argentine Republic for handling the next crop of wheat, oats, and flaxseed. These sacks are sufficient to contain 3,000,000 tons of grain. As the total crop of these cereals is estimated at 6,000,000 tons, it will be necessary to provide 50,000,000 more sacks or substitutes therefor in order to properly handle the output of the cereals referred to.—The bureau of statistics of the Argentine Government has compiled reports showing that during the months of January, February, and March of the present year the exports from Argentina amounted to 204,963,471 pesos Argentine gold (gold peso = \$0.9648), or 39,771,332 gold pesos more than during the same period of 1916. These exports for the quarter referred to represented in gold pesos the following products: Stock and stock products, 114,480,273; agricultural

products, 70,758,676; forestal products, 5,156,840; and other products, 14,567,682.—The land department of the Argentine Government has received an official report recommending the cancellation of DEFECTIVE LAND GRANTS covering 1,014,563 hectares (hectare=2.47104 acres) of public lands in the Territory of Santa Cruz acquired for speculative purposes. Should these grants be canceled, the lands in question will be thrown open to actual settlers, who will be given clear titles to them upon compliance with the Argentine land laws.—The ARGENTINE LEAGUE AGAINST TUBERCULOSIS treated 4,340 cases in 1916 and conducted an active propaganda throughout the Republic looking to the prevention and cure of this malady.—BANK BALANCES in the Argentine Republic on April 30, 1917, showed amounts on hand aggregating 63,096,197 pesos, gold (gold peso = \$0.9648), and 637,190,746 pesos, currency (paper peso = \$0.425).—The 31 SUGAR CANE ingenios (plantations) of the Argentine Republic ground in 1916 cane estimated at 2,000,000 tons, as compared with an estimated quantity of 2,500,000 tons in 1917. Thirty per cent of this amount represents bagasse, which recent investigations show could be utilized in the manufacture of paper should that industry be established in the Republic.—During the latter part of May of the present year a CONGRESS OF OBSTETRICS and gynecology was held in Buenos Aires, delegates from the neighboring countries participating.—On May 24 last the HOSPITAL of San Roque was inaugurated in the city of Dolores. The building, which is said to be one of the best for hospital purposes in the country outside of the national capital, was donated by Mrs. Valeria V. de Crotto.—During the first part of June last the commission of the Argentine Government in charge of the PURCHASE AND DISTRIBUTION OF SEEDS to agriculturists had received 9,500 requests for seeds representing 36,500 tons of wheat and 3,500 tons of flaxseed. It is estimated that the area sown to these cereals in the Argentine Republic during the present year will not be less than 7,000,000 hectares, and that the production of wheat alone will aggregate 5,000,000 tons.—On July 8, 1917, the FIRST CONGRESS OF NOTARIES met in Buenos Aires.—The area under COTTON CULTIVATION in the Argentine Republic in 1916 was 3,390 hectares, as compared with an estimated area in 1917 of 4,000 hectares.—The bureau of statistics of the department of agriculture has published figures showing that the SALES AND MORTGAGES OF RURAL PROPERTY in Argentina in 1916 amounted, respectively, to 305,877,186 and 170,432,317 pesos, currency (paper peso = \$0.425).—A Scandinavian syndicate is negotiating with the Argentine Government concerning the exploitation of FIBROUS PLANTS and the establishment of a factory

for the manufacture of textiles and sacks. The company referred to is now operating a textile factory in Paraguay, the raw materials for the use of which come from the fibrous plants of that country.



BOLIVIA

Hundreds of barrels of CEMENT AND MORE THAN 500 BOXES (bultos) of freight have been ordered passed free of duty at the customhouse at Uyuni; all of these materials are destined for the new railroad between Potosi and Sucre, which is now under construction.—A COMMERCIAL GUIDE OF LA PAZ is the title of a new book which is being compiled and edited by Luis Dick A. Recent business activities in La Paz and throughout the mining region of Bolivia have added many new names to the business world as well as other data which will be included in the forthcoming guide.—Sr. Don Adolfo Diaz Romero, well known in diplomatic circles in Washington, London, and other capitals, has been named CONSUL GENERAL AT PARA, Brazil. Sr. Romero formerly held this important post but was recalled to La Paz at the outbreak of the European war and made assistant minister of foreign relations. More recently he has held the post of professor of law in the University of La Paz. He has already reached Para and entered upon his duties.—An AUTOMOBILE has been run from Oruro to La Paz, a distance of about 150 miles, in six hours. This is considered unusually quick time owing to the poor roads existing for a portion of the distance. On certain parts of the highway a speed of 50 miles per hour was attained.—The president of the Geographic Society of La Paz, Dr. Manuel V. Ballivian, has directed an official communication to the chief of a branch of the ministerio de gobierno y fomento calling attention to the necessity of preserving the ancient monolith recently unearthed at Tiahmanaen. Attention is also called to the wanton destruction of parts of THE ANCIENT RUINS by curio hunters and others and to the fact that the vast area over which they are scattered belongs to the State and therefore should be preserved for future generations.—Among the most interesting exhibits at the museum of the consulate general of Bolivia in New York are the VARIOUS GRADES OF SILK from the region of Cochabamba, Bolivia. This product is of excellent quality, and the industry could be greatly increased by the introduction of additional capital and modern appliances for handling the raw materials.—A company of CAMP FIRE GIRLS (Ninas de los campos de fuego) was recently organized at the American Institute in La Paz, with the object of engaging in such exercises,

sports, and study as do other branches of this well-known organization in Europe and the United States. Mrs. Virginia B. Whitehead is the organizer and Senorita Maria Cusicanqui is assistant. Twenty students compose the first company.—El Diario of La Paz recently contained a summary of the nation's RAILWAY PROGRESS under the administration of President Montes, whose term of office expires on August 6 next. Between the years 1906 and 1917 eleven different lines of railway were constructed, totaling more than 660 miles; while the lines still in process of construction measure more than 350 miles. Thus in a comparatively short time the country has advanced rapidly in means of getting its raw products toward world markets, one of the greatest necessities of all new countries. Bolivia to-day has approximately 840 miles of railways, including the completed line to Cochabamba, which was officially inaugurated on July 4 last by President Montes and other officials who journeyed from La Paz to the inland city for that purpose.—The annual report of the Anglo-Bolivian RUBBER COMPANY, which operates rubber estates in the region of Concepcion, 125 miles northeast of Santa Cruz, shows a dividend of 10 per cent. This company has 1,250,000 shares, each share having an approximate value of 25 cents. The new manager of the estates is Mr. W. D. McDougall, who, with two assistants, recently arrived in Bolivia from England.



BRAZIL

Some years ago considerable quantities of Indian corn were imported from the Argentine Republic to supply the demands of the southernmost States of Brazil. About the year 1900, however, the price of coffee fell so low in the State of São Paulo that planters commenced the cultivation of corn on coffee plantations between the rows of coffee trees. Since the year referred to the growing of maize has constantly increased throughout southern Brazil, and of late years has proved to be a most profitable crop. The packing houses of the State of São Paulo have also encouraged the raising of Indian corn for use in fattening stock, especially hogs, cattle, and sheep. In the States of São Paulo, Parana, and Minas Geraes hundreds of corn clubs have been organized, and these have greatly stimulated the cultivation of this cereal. At Curitiba, capital of the State of Parana, the THIRD NATIONAL CORN EXPOSITION is to be held from August 12 to 14 of the present year. The principal varieties of maize grown in southern Brazil are the white, yellow, and mixed.—A recent executive decree authorizes the construction of a RAILWAY from Tubarao to Ararangua. When this road is

completed it will furnish transportation facilities to the great coal-mining region of Santa Catharina and will enable coal to be quickly and cheaply transported, via Porto Alegre, to Rio de Janeiro, and other industrial centers of the Republic. The length of the road planned is about 80 kilometers.—The fortnightly review entitled, "Brazil Ferro-Carril," published in the National Capital, says that the principal WOLFRAMITE deposits of the Republic are in the States of Minas Geraes, Bahia, Rio de Janeiro, Ceara, Rio Grande do Norte, and Parahyba. A sample of wolframite ore from Rio Grande do Norte, recently assayed in Rio de Janeiro, proved to be of a better grade than that of the ores taken from the wolframite mines of Portugal.—The FIRST ROAD CONGRESS of the State of São Paulo opened its sessions on May 1 last in the city of São Paulo with 360 delegates in attendance, 140 of whom represented municipalities.—The Continental Packing Co. at Osasco, State of São Paulo, recently slaughtered 105 head of ZEBU BEEVES, which produced an average quantity of chilled meats of 25 arrobas (arroba = 25 pounds) each.—Prominent Brazilian physicians in Rio de Janeiro have taken preliminary steps toward the organizing of a company looking to the establishment in various parts of the Republic of modernly equipped SANITARIUMS, the first of which will be located, according to present plans, on the side of the Itatiaya Mountain near the National Capital.—Dr. David Speroni of Buenos Aires has accepted the invitation of the Faculty of Medicine of Rio de Janeiro to give a series of lectures on GYNECÓLOGY in the National Capital and in São Paulo in June and July of the present year.—The Brazilian Carbide of Calcium Co., of Palmyra, State of Minas Geraes, produced 61,016 drums of CALCIUM CARBIDE in 1916, as compared with 50,146 drums during the previous year, some of which was exported to the Argentine Republic.—The State of Parana has been authorized by the President of the Republic of Brazil to improve the PORT OF PARANAGUA and to control and use the same for a period of 60 years. The improvements are to be made in accordance with plans and estimates sanctioned by the General Government.—The secretary of the treasury of the Government of Brazil, acting under authority vested in him by an executive decree of May 9 last, will issue 20,000,000 milreis (\$4,800,000) in TREASURY NOTES. This will make the amount of paper money in circulation in the Republic 1,157,527,725 milreis, valued, approximately, at \$278,000,000 American gold.—The PETROLEUM zones of Brazil, as at present known, are situated in the States of São Paulo, Minas Geraes, Bahia, Pernambuco, Sergipe, Parahyba, Rio Grande do Norte, Maranhão, Para, and Amazonas.—TOBACCO is said to have been cultivated in Brazil as early as 1570, the State of Bahia being then, as it is now, the principal tobacco-producing

region of the country. The other tobacco-growing districts are Minas Geraes, São Paulo, Santa Catharina, Goyaz, Sergipe, Alagoas, Pernambuco, Parahyba, Rio Grande do Sul, Ceara, Piahy, Para, and Maranhão. —The STOCK FAIR, which was opened at the old agricultural school grounds at Rio de Janeiro on May 13 last, closed its exhibits on June 6 of the present year. —Reports from Rio Grande do Sul are to the effect that a short distance from the coal mines of that State large deposits of IRON ORE, manganese, wolfram, and lime have been found. —The São Paulo-Rio Grande Railway Co. has been authorized to build and operate a road from a point on its Paranapanema branch lines to the COAL MINES in the Peixe River Valley, State of Parana. —With the object of stimulating trade, steps have been taken by the Argentine Government, in cooperation with the export interests of Buenos Aires, to open permanent EXHIBITS OF ARGENTINE PRODUCTS in Rio de Janeiro and São Paulo.



CHILE

On September 1, 1917, the Mauco IRRIGATION CANAL, the cost of which is estimated at 1,591,332 pesos, currency (peso currency = \$0.22), is to be opened to public service. —The National Government has been authorized to issue 14,000,000 pesos, in BANK NOTES of 2, 5, 10, 100, and 500 peso denominations, respectively. —On August 1 next the land department of the Government of Chile will sell at auction leases on GRAZING LANDS in the Territory of Magallanes, good until December 31, 1933. —According to data compiled by the Bureau of Statistics of the Chilean Government, the POPULATION of the Republic of Chile on December 31, 1916, was 3,870,022, or an increase in 10 years of 620,743. The population of Santiago, the national capital, is given as 406,495, and that of Valparaiso, the principal port of the country, as 207,008. —In September, 1917, a CHARITY (BENEFICENCIA) CONGRESS will meet in Sautiago. This is the first congress of this kind to be held in the Republic. —The President has sent a message to Congress recommending the limitation of EXPORTS OF CERTAIN FOOD PRODUCTS, among which are wheat, flour, and beans. —A bill has been introduced into Congress providing bounties for the construction of MERCHANT MARINE vessels, and offering measures for the protection and upbuilding of a national merchant marine. —The Government of Chile has published statistics showing that the output of the COPPER mines of that country in 1916 amounted to 71,430 tons, as compared with 52,081 tons in 1915. —The Chilean

Government has authorized Liborio Guerrero and Cristino Haase to establish and maintain a regular NAVIGATION SERVICE on Lake Llanquihue for a period of six years.—Steps have been taken looking to the organization of a Commercial and Industrial BANK with headquarters at Santiago and with branches at Valparaiso, Talca, Chillan, Concepcion, Temuco, Valdivia, and other industrial cities. The initial capital of the bank is to be 2,000,000 pesos, currency.—According to the message of the President of the Republic delivered to the National Congress on June 2 last, the FOREIGN COMMERCE of Chile in 1916 amounted to 736,105,572 Chilean gold pesos (gold peso = \$0.365), of which 222,520,828 represent imports and 513,584,744 exports, or an excess of exports over imports of 291,063,916 pesos.—The Chilean press announces that a company has been organized in Santiago to work the Pidey COAL MINES, situated on the ranch of the same name a kilometer distant from Marfil station. The engineers who were commissioned to report upon the mines encountered the first coal vein at a depth of 50 meters. The analysis of this coal is reported to have shown that it was of excellent quality.—The President has requested Congress to authorize the establishment of LEGATIONS in Uruguay, Colombia, Mexico, and Venezuela.—Oscar Bravo Echart, a Chilean agricultural engineer, has been commissioned by the Government to study in the United States the CELLULOSE INDUSTRY for the manufacture of paper.—About the middle of May last the foundry operated in connection with the railway shops at Santiago commenced the manufacture of IRON BARS to be used as construction material for the new shops at San Bernardo.



According to data published by the bureau of statistics of the department of Huila, there were made in that department last year 207,913 STRAW HATS, valued at \$399,324, gold.—The Government of the Department of Antioquia has taken preliminary steps to establish a LABORATORY for the manufacture of vaccine to be used by stockmen in the prevention of murrain and similar diseases of cattle.—On May 21 last the Congress of Venezuela ratified the COLOMBIAN-VENEZUELAN CONVENTION made in Bogota on November 3, 1916. Authority has been given the Colombian minister in Caracas to conclude the exchange of ratifications at the earliest date possible.—THE AMERICAN SPORT CLUB has been organized in Bogota for the purpose of popularizing football, baseball,

tennis, and other athletic outdoor games.—French merchants and representatives of French firms in the national capital have founded a FRENCH BOARD OF TRADE in Bogota, one of the chief objects of which is to make known the exceptional advantages which the Republic of Colombia offers to the farmer, the merchant, and the financier, and the desire of the Colombian Government to foster the development of agriculture, industry, and commerce in the Republic.—A colony of 200 families of AGRICULTURISTS has just been founded in Caqueta at a place having a good climate, a fertile soil, and adequate transportation facilities for the needs of the colonists.—The department of public works has formally delivered to the English railway company at Girardot the RAILWAY HOTEL building at a place known as "Juntas de Apulo," together with its equipment and annexes, and the company will soon open same to the public and maintain it in operation during the hot season of the year as a summer resort.—Under the title of Administrative Reform in Colombia (Reform-Administrativa en Colombia), the distinguished Colombian writer, Dr. Antonio José Uribe, has published a work treating of matters relating to education, finance, industries, transportation, etc.—Press reports state that a CHILEAN COMMISSION OF AGRICULTURAL EXPERTS will soon arrive in the Republic. This commission proposes to give special attention to the study of Colombian products which can be commercially exchanged for Chilean commodities, thereby encouraging the development of commerce between the two countries.—According to *El Comercio*, of Barranquilla, a Colombian agronomist of wide knowledge and experience has been officially commissioned by the English Government to collect data showing the area of private GRAZING LANDS, both wild and cultivated, available in the Sinu and San Jorge River basins as well as the extent of Government grazing lands in the regions referred to.—On June 9 last the National Government celebrated the HUNDRETH ANNIVERSARY of General Julio Arboleda, a noted Colombian statesman, warrior, and writer, by placing a bust of said general, presented to the Nation by the municipality of Popayan, in Independence Square in the city of Bogota.—The cabinet has approved a contract made by the consul of Colombia in New York with Peer Martin Lund, under the terms of which the latter agrees to go to Bogota to teach RADIOGRAPHY for two years in the medical school. A hall has been especially equipped for this purpose in the San Juan de Dios Hospital of the national capital.—A recent executive decree places the NATIONAL METEOROLOGICAL SERVICE under the department of public instruction. The service referred to was established under a law enacted in 1917.

COSTA RICA

The exports of "panela" or RAW SUGAR from Costa Rica in 1916 consisted of 1,759.5 metric tons, a large part of which was consigned to commission houses in New York City, one firm having received 302 metric tons. Sugar cane grows luxuriantly in almost every part of the Republic, and is cultivated on a large scale in the Atlantic Coast region. Much of the raw sugar of Costa Rica is refined in the country, but the surplus is shipped to the refineries of foreign countries. Sugar-cane growing and the refining of sugar has been, during the last few years, one of the most promising and prosperous industries of the Republic. The high prices of sugar, both at home and abroad, is encouraging sugar-cane growers to plant more cane, and should the conditions of the market remain as they now are, it is predicted that Costa Rica will greatly increase the production and export of this product within the next few years.—Preliminary steps have been taken looking to the establishment of an INTERNATIONAL INFORMATION BUREAU in the capital of Costa Rica with the object of promoting and encouraging closer commercial and literary relations between the countries of Central America, the United States, and the Latin American Republics. Other Latin American countries, such, for instance, as Venezuela, Colombia, Argentina, Uruguay, Chile, Cuba, and some others, have in operation public or private offices of this kind. The Costa Rican Bureau is to be founded along the same lines as those of the countries mentioned, and will include among its activities matters relating to statistics, geography, commerce, industry, agriculture, letters, teaching, newspaper work, art, etc.—The NEW CONSTITUTION of the Republic of Costa Rica has been formulated and submitted to the consideration of the National Congress. A six-year term is provided for President and Vice President, these officers to be chosen by a college of electors. The clause giving women the right to vote was rejected after a spirited debate. The constitution prescribes that judges of the supreme court shall be appointed for life, prohibits capital punishment, and establishes a department of public health.—Estimates recently made by the director of agriculture of Costa Rica give 1,093 hectares (2,700 acres) as the approximate area planted to TOBACCO in the Republic, with a yield in 1916 of about 900,000 pounds. The planting season is from August to September, while the stripping season begins in January.—The American consul at San Jose has collected detailed information from the manager of the farms of the United Fruit Co. in Costa Rica concerning CACAO CULTIVATION in that country. During the last few years the custom of planting abandoned banana

plantations to cacao has become quite general throughout the Republic. In such cases no clearing has to be made, but shade has to be provided for the cacao plants. Most of the soil of the Atlantic Coast region of Costa Rica is suitable to cacao cultivation with the exception of heavy clays, sandy and gravelly deposits, and swamps. Ideal soils for cacao culture are rich alluvial lands, and especially those containing a sufficient quantity of clay to give the soil a heavier body than is found in the average loams. Generally speaking, where bananas have grown well for four or five years the land is adapted to cacao cultivation. In all cases, if good results are to be obtained, proper drainage, either natural or artificial must be provided. The variety of cacao known locally as "sangre de toro" (oxblood), and which originally came from Venezuela, gives the best results, although a number of other varieties are successfully grown throughout the Republic.



A bill has been introduced into the Congress of Cuba providing for the holding of a SPANISH ART EXPOSITION in November, 1919.—The Cuban press is advocating the cultivation of HENEQUEN on a large scale in the western part of the Island. It is contended that climatic and soil conditions there are exceedingly favorable to the growth of the henequen fiber producing plant, and experienced persons who have investigated the matter believe that as good results can be obtained in Cuba as are now obtainable in Yucatan. Recently Mexicans from the henequen-producing districts of Yucatan have purchased large tracts of land in Cuba and propose to engage in this industry on a large scale. The life of the henequen plant is from 15 to 20 years and the average yield in Cuba is about 70 pounds of fiber to every 1,000 leaves, as compared with 50 pounds per thousand in Yucatan. At the Buffalo International Exposition sisal made from henequen grown in Cuba won the gold medal in competition with Yucatan and other countries.—The Cuban Congress has been asked to appropriate \$400,000 for the construction of SEWERS in Marianao, a suburb of Habana.—Steps have been taken looking to the publication of a HISTORICAL GEOGRAPHY of the Isle of Pines for use in schools and for other educational purposes.—The President of Cuba has recommended that Congress enact a law withdrawing the restrictions on immigration, except those in force by the department of sanitation and the one prohibiting minors under 14 years of age from entering the country unaccompanied by parents or other responsible persons.

The object of the proposed law is to allow the entry of laborers needed for agricultural and industrial purposes.—A bill has been introduced into Congress authorizing the President of the Republic to expend \$2,950,000 in STREET IMPROVEMENTS and water works for the city of Camaguey.—During the fiscal year ending June 30, 1917, SHIPS to the number of 2,374 entered the port of Habana. This was 200 more than during the previous fiscal year.—The COAL dealers of the Republic have chartered sailing vessels to bring fuel from the United States and thereby prevent a shortage of this commodity.—The National Bank of Cuba has declared a semiannual DIVIDEND of 5 per cent. The same institution has placed \$10,000 to the credit of the pension fund set aside for its employees.—A bill providing an appropriation of \$100,000 to construct a public HIGHWAY from Manzanvillo to Real de Vicana, via Jibacoa, has been introduced in Congress.—The President has appointed Dr. Jose Antolin del Cueto y Pazos CHIEF JUSTICE of the Cuban Supreme Court, in place of Dr. Pichardo, retired.—The municipal authorities have ordered STREET SIGNS placed on the corners of streets in the city of Habana and corrections made where houses are wrongly numbered.—A concession has been granted the Sagua Railroad Dock Co. to construct three WAREHOUSES in accordance with plans submitted to the Government on September 15, 1915.—A scientific commission of six Cuban physicians has been appointed to investigate the Angel Garcia LEPROSY CURE.—Press reports state that one of the petroleum wells near Habana has a steady flow of OIL in excess of 200 barrels a day.—“La Discusion,” a daily newspaper of Habana, has arranged with the Associated Press in the United States for an afternoon LEASED WIRE SERVICE.—A bill has been introduced into Congress calling for an appropriation of \$325,000 to purchase SURGICAL INSTRUMENTS and to make repairs on the hospitals of Santiago, Camaguey, Santa Clara, Cardenas, and Gnantanamo.—The BUDGET of the Cuban Government for 1917-18 estimates the receipts at \$46,679,942, and the expenditures at \$36,337,686.

DOMINICAN REPUBLIC

According to an article published in the “Listin Diario,” a daily newspaper of the city of Santo Domingo, a sufficient quantity of WHEAT could be grown in the Republic to abundantly supply the 700,000 inhabitants of the country with wheat flour, since the mountain lands of the country, having an elevation of more than 800 meters (2,625 feet), are ideally adapted to the growing of this and other

cereals. The Dominican Republic has land, climate, and rainfall most suitable to wheat cultivation on a large scale, and the only thing which seems to be wanting is transportation facilities. The highways and trails leading into the mountainous regions of the Republic are not good and would have to be increased in number, improved, and extended in order to open up the wheat belt of the country. At present the Dominican Republic imports about \$1,000,000 worth of wheat flour and other breadstuffs, which, it is contended, could all be eliminated by the proper cultivation of the soil of the tablelands and the encouragement of the milling industry in the Republic.—Within a short time, according to press reports, an automobile ROAD from Villa Duarte to La Caleta will be completed. The department of public works of the Government of the Dominican Republic is said to be considering the advisability of calling for new bids for the construction of a highway from Santo Domingo to San Isidro, and possibly from the latter place to San Pedro de Macoris. A macadam road is now being built from San Pedro de Macoris to Hato Mayor, a distance of 12 kilometers, and another highway of about the same length is under construction between Santiago and San Jose de las Minas. Plans have also been made to build a 10 kilometer road from Azua to San Juan.—At the present time there are nine DOMINICAN STUDENTS holding Government scholarships studying in Paris, and three Dominicans who are pursuing educational courses there on their own account. These young men are devoting their attention to medicine, engineering, music, and other arts and sciences.—The city council of San Francisco de Macoris has petitioned the military government to authorize the negotiation of a LOAN of \$250,000, repayment to be guaranteed by a tax of 20 per cent on the value of commodities brought into the municipality and by a tax of one-half per cent upon the taxable property of the city of San Francisco de Macoris. If the loan is made the proceeds of same are to be expended on the following works: Aqueduct, electric light and power plant, sewers, cemetery, school buildings, etc.—The town of Bani has also petitioned the military government for permission to borrow \$16,000 to be used in installing an electric light and power plant, the construction of a market, the boring of an artesian well, park development, and church repairs.—The recent POSTAL CONVENTION, concluded between the United States and the Dominican Republic and effective since June 15 last, makes the interior postal rates on first-class matter in force in the two countries at the time mentioned, applicable to the foreign correspondence between the two Republics.—According to statistics published by the Dominican press, the FREIGHT TRAFFIC of the Central Dominican Railway in February, March, April, and May of the present year amounted to 11,969 metric tons.—The depart-

ment of agriculture of the Government of the Dominican Republic has provided a traveling AGRICULTURAL INSTRUCTOR to visit the farming communities of the country and to recommend means and measures for obtaining more abundant yields of staple crops.—A company representing American interests has been organized to manufacture SUGAR in the Republic. W. L. Bass, of San Pedro de Macoris, is one of the prime movers in the undertaking.

ECUADOR

The Ecuadorian members of the MIXED BOUNDARY COMMISSION appointed by the President of the Republic in accordance with the provisions of Article III of the delimitation treaty between Ecuador and Colombia, are Dr. N. Clemente Ponce, Ignacio Fernandez, and Gualberto Perez. This commission is authorized to select at the proper time such technical and clerical employees as may be considered necessary in establishing and fixing the boundary line between the two countries in cooperation with the Colombian commission.—Romanet & Co. of Guayaquil have petitioned the department of the interior of the Government of Ecuador for permission to import machinery for the installation of a factory for the manufacture of AMMUNITION for sportsmen.—An oil shaft drilled at Ancon, Ecuador, to a depth of 2,000 feet encountered a flow of PETROLEUM at 1,700 feet. An analysis of the oil showed that 30 per cent was suitable for the manufacture of gasoline. This shaft was later abandoned because of financial difficulties, but experts believe that it could be easily reopened and profitably exploited. The Santa Elena oil zone comprises, approximately, 600 square miles, extending from Salinas, the most western part of the Republic, to the village of San Vicente. Ballenita, 90 miles north of Guayaquil and 740 miles from Panama, is an excellent port near petroleum wells which produce from two to ten barrels of oil per day, practically all of which is used as fuel by local enterprises.—By a recently promulgated decree the EXPORTATION OF GOLD from the country has been prohibited, and a law has been enacted which authorizes banks of issue to cease redeeming their notes in gold coin. The exchange value of the sucre has declined somewhat and is now approximately \$0.3846.—Advices from the national capital are to the effect that arrangements have been made to convene a CONGRESS OF WORKMEN in Quito on October 9, 1920, under the auspices of the workmen's association.—In June last work was commenced on the new CIVILIAN HOSPITAL BUILDING in Quito, and will be pushed

forward to completion as early as possible.—A recent executive decree authorizes the chairman of the board of improvements and public works of Azuay to negotiate a LOAN with the bank of that province for a sum sufficient to complete the Descanso bridge of the Cuenca Railway.—In accordance with the recommendation of the department of telegraphs of the Government of Ecuador, the Government of Venezuela has been requested to cooperate for one year in a FREE TELEGRAPHIC SERVICE between the Republics of South America upon the bases adopted by the Bolivian Congress of Caracas.—On June 4 last the remains of ANTONIO JOSÉ DE SUCRE, the hero of Ayacucho, were removed to All Souls Chapel of the Metropolitan Church in Quito.—An executive decree establishes a NEW RURAL PARISH under the name of "Luis Cordero" at San Marcos ranch in the Canton of Azogues.—The National Government has added to the curriculum of the military school in Quito a special COURSE OF TOPOGRAPHY.—The Congress of Ecuador has ratified a TREATY with the United States for the exchange of postal MONEY ORDERS.—In conformity with a legislative decree of October 8, 1916, ordering the construction of the CHONE TO QUITO RAILWAY, via Santo Domingo de los Colorados, the President has designated the amount available for the cost of studying and reporting upon the preliminary survey.



GUATEMALA

A report of the secretary of the department of public instruction to the National Congress during the regular sessions of that body in 1917, shows that in 1916 there were 1,942 primary SCHOOLS in the Republic with an enrollment of 67,152 pupils, as compared with 1,899 schools in 1915 having 65,904 matriculates. During the past year there were in operation in the Republic the following primary schools: Eighteen kindergarten, 457 mixed, 522 boys, 550 girls, 6 practical for girls, 20 practical for boys, 49 night for workmen, 3 arts and crafts, and 317 rural. During the same year there were 21 schools engaged in the work of higher education. President Manuel Estrada Cabrera in a message to Congress on March 15 last stated that he hoped to aid most effectively in promoting education in the Republic, and that he would allow nothing to swerve him from his course. He advocated in the strongest terms the education of women, because, he said, "to educate and instruct the mothers of the land is to make good and loyal citizens."—President Manuel Estrada Cabrera has been DECORATED by the Italian Government with the Great

Cross of the Crown of Italy as a manifestation by the Italian Government of its appreciation of the good will and friendliness of the Guatemalan President toward the people and Government of Italy shown by the conclusion recently of two important treaties between the two Governments, namely, an arbitration treaty and a treaty of commerce.—In 1915 the SALT production of Guatemala amounted to 8,740,000 kilos, a quantity insufficient to meet the needs of the country during that year, since the imports of this commodity in the year referred to aggregated 917,000 kilos. Most of the salt manufactured in Guatemala is made on the Pacific coast at the ports of Champerico and San José by evaporation of sea water. An American company has a large salt plant at the latter place. This company makes salt by evaporating salt water by exposure to the rays of the sun, instead of boiling it as is the custom in some of the plants. The annual salt consumption of Guatemala, in round numbers, according to an estimate of the American consul at Guatemala City, is 10,000,000 kilos (kilo = 2.2046 pounds).—The Government of Guatemala is encouraging the agriculturists of the country in every way possible to increase their acreage of BEANS, CORN, rice, and wheat. Partial reports from different parts of the Republic show large increases in the plantings of these staple products, especially corn and beans, which are the most important food articles of the country, the most productive, and the most extensively grown.—Enrique Weissenberg has petitioned the department of fomento for a 10-year concession authorizing the enlargement of his COTTON AND WOOLEN MILLS in Quezaltenango, the use of water for the production of motive power, and the exemption of factory buildings and other property from taxation during the period referred to.—The Government of Guatemala has been petitioned to sanction a contract between the City of Guatemala and the Occidental Bank, under the terms of which the latter agrees to lend to the former \$1,200,000, American gold, to be used in liquidating the municipal debt and in the construction of a MUNICIPAL BUILDING.



HAITI

The marine section of the department of agriculture of the Government of Haiti advises, for the benefit of commerce in general, that the former HAITIAN CRUISER *Nord Alexis*, recently sold by the National Government to private parties, is to be operated by its new owners under the Danish flag.—The consul of Haiti in Havre has just reported to the department of foreign relations of the

Haitian Government that the following HAITIAN PRODUCTS were received in the port referred to during 1916: 125,124 sacks of coffee; 21,309 pounds of hides, dry; 308,192 pounds of honey; 104,582 pounds of cotton; 852,604 pounds of cacao; 11,827,118 pounds of Campeche wood (dyewood); 11,862 boxes of oranges; 3,953 pounds of old copper; 483,958 pounds of cotton seed; 2,823 pounds of wax; and 2,578 pounds of horns.—In May last the EXPENSE BUDGET of the National Administration amounted to 390,114 gourdes, and \$107,114, American gold.—A new edition of the CODE OF CIVIL PROCEDURE, with annotations by Mr. J. N. Léger, has just been published in Port au Prince. The new edition, which contains 300 pages, has both the old and amended laws and is a work of merit and importance.—A new daily newspaper, under the name of "La Liberté," has just made its appearance in Cayes under the management of J. V. Delorme.—Public subscriptions are being taken in Port au Prince to raise funds for the construction and equipment in the most modern and scientific manner of an OPERATING HALL for use in the national capital, in connection with the Saint Francis de Sales Hospital.—Press reports state that an AGRICULTURAL SOCIETY has just been organized in Port au Prince for the purpose of developing agriculture and industrial enterprises. The work of the organization is divided into three sections, namely: Instruction, legislation, and agricultural credit; cultivation in general; and agricultural industry and rural development. The by-laws of the society admit natives and foreigners to membership.—Albert Blanchet, a Haitian lawyer, has been appointed SECRETARY OF THE LEGATION of Haiti in the United States to take the place of M. Maurice Menos, resigned.—"Le Matin," a daily newspaper of Port au Prince, in its edition of June 6, 1917, publishes the proposed CONSTITUTION of the Haitian Republic drafted by Doyen Nau.—In order to render FOREIGN EXCHANGE stable throughout the Republic, the general customs office of the Government will sell United States gold coin at the rate of 5 gourdes 15 centimes per dollar.—The HAITIAN LAW ANNUAL has just been published in Port au Prince. The work contains the laws, orders, and decrees of the year 1916, together with The Hague conventions.—The President has authorized the HAITIAN WEST INDIA CO. to do business in the Republic, and has approved the by-laws of that corporation.—The EXPENSES OF THE ADMINISTRATION in June last were 384,762 gourdes, national coin, and \$106,947 American gold.—"Le Matin," of Port au Prince, in its issue of June 9, publishes the full text of the report submitted to the National Congress by the committee appointed to recommend the adoption of a NEW CONSTITUTION.

HONDURAS

In accordance with the provisions of an executive decree issued on May 1, 1912, ARBOR DAY was celebrated throughout the Republic on May 15 last. The day furnished the occasion for the singing of patriotic hymns, and the planting of trees by the representatives of schools and other organizations.—The National Government recently granted a number of franchises and privileges for the installation of NEW FACTORIES in the Republic, to wit: A gaseous water manufacturing plant in the town of Pespire, and a soap and candle factory in San Pedro Sula. Both these factories are to be erected, equipped, and opened for business within 12 months.—The National Congress has enacted a law imposing a tax of 6 centavos per bottle of aguardiente sold, and 1.50 pesos on every eight arrobas (arroba = 25 lbs.) of DISTILLED LIQUORS and sparkling wines imported. The proceeds of this tax is to be used in installing electric or other lights, and for the construction of sewers in the capitals of the departments and districts.—Barometric measurements just taken in Morazán Park in the city of Tegucigalpa, capital of the Republic, show the altitude of the metropolis to be 3,100 feet above the level of the sea. It is this elevation and the lay of the mountains in the vicinity which give to the national capital one of the finest climates in the world, free from extremes of heat and cold, and a wealth of vegetation as luxuriant and beautiful, perhaps, as any in Central America.—A Mexican navigation company has about completed arrangements with the department of communications of the Mexican Republic for the establishment of a line of STEAMERS to ply between the Port of Progreso, State of Yucatan, Mexico, and Puerto Cortes, Honduras, with stops at the island of Cozumel and Payo Obispo, Mexico; Belize, British Honduras; and Puerto Barrios, Guatemala.—A STUDENTS' LEAGUE, composed of graduates of scientific and literary courses of the principal institutions of learning of the Republic, has been organized in Tegucigalpa.—Under the title "El Ahorro Hondureño" (The Honduran Savings) a national stock company has been organized in Tegucigalpa to encourage SAVINGS AND INSURANCE against sickness and accidents.—Commercial employees of the city of Amapala have taken preliminary steps toward the founding of a MUTUAL AID SOCIETY with branches in the principal industrial and commercial centers of the country.—Ulises Meza Calix, a Honduran educator, has just compiled and published a GEOGRAPHY OF HONDURAS for use as a textbook in the schools of the Republic.—According to "The Reporter," a bilingual weekly publication of La Ceiba, business in that port has been very prosperous since the Government of Honduras

began the construction of the NEW CUSTOMHOUSE. Freight traffic has also notably increased, large fruit shipments being made by the Vaccaro Co. two or three times a week.—The Government is having a VESSEL built at the Oak Ridge shipyards on the Island of Roatan. The contract price is \$8,500 gold.—The inhabitants of Roatan Island, near La Ceiba, have taken preliminary steps toward the establishment of a TELEPHONE LINE.—Prof. Carlos Izaguirre has arranged to publish a NEWSPAPER at Juticalpa. Under the name of "Atlántida" Dr. Salvador Lejanza and the poet Hernán Rosales have founded a newspaper at La Ceiba.



Prospecting done under orders of the director general of the National Railways in the newly discovered COAL fields at Honey, State of Hidalgo, indicate that there is an abundance of coal in the deposits. The mines are only 6 miles from the railroad, and preparations have been made to develop them on a large scale.—The GOVERNMENT PRINTING OFFICE in the City of Mexico is to be equipped with modern machinery and enlarged sufficiently to enable all Government work to be done therein.—A comprehensive plan has been prepared by the secretary of fomento (promotion) looking to the COLONIZATION of Cedros Island off the west coast of Mexico. The island of Guadeloupe in the Pacific Ocean near Lower California is to be utilized for a military colony, and is now being explored for the purpose of determining the best plan to be followed.—The East OIL Co., a foreign corporation, has been authorized to lay an oil pipe line from their holdings to deep water in the Tampico petroleum district.—Early in June last the NATIONAL PAWNSHOP in the City of Mexico, known as the Monte de Piedad, and which conducts its business under Government supervision, reopened its doors after having been closed for a long time.—The President of the Republic has instructed customs officials to facilitate in every way possible the RETURN OF MEXICANS who wish to repatriate themselves. Such persons will be allowed to import, free of duty, household goods, clothing, tradesmen's tools, agricultural implements and machinery, domestic animals, and other supplies for their personal use.—The department of public works contemplates enlarging or improving the GRAND CANAL which drains the Valley of Mexico in such a way as to make it adequate to carry off flood waters during the rainy season.—The municipal authorities of the city of Merida, Yucatan, have resolved to purchase vacant lands and to utilize same for gardens and as sites for the erec-

tion of **COTTAGES FOR THE POOR**, who will be charged only a nominal rent therefor.—A commission has been appointed to examine the proposed concession for the construction of a **RAILWAY** between San Luis Potosi and Guadalajara. It is planned to build the line so as to give direct communication with the port of Vera Cruz.—A **DEPARTMENT OF PHOTOGRAVURE** has been added to the National School of Arts and Sciences in Merida, Yucatan.—The Guayule **RUBBER FACTORY** at Cedral, State of San Luis Potosi, has again commenced operations. The gathering and treating of guayule at this plant gives employment to hundreds of persons.—The department of fomento reports that there are 3,000,000 hectares of **PUBLIC LANDS** in the Territory of Quintana Roo which are open to exploitation. Chicle, rubber, and hardwoods are the principal products of the forests of that Territory.—Labor from Cuba and Spain is being imported into Yucatan to assist in the harvesting of the **HENEQUEN** crop.—The **STREET RAILWAYS COMPANY** of Mexico City has increased the wages of its employees 20 per cent.—According to press reports arrangements have been completed for the installation of a large factory for the manufacture of **ARMS AND AMMUNITION** at Juanacatlan, State of Jalisco, where a large hydroelectric plant exists.—Application has been made to the department of fomento for permission to propagate the **PEARL OYSTER** in the Gulf of California, the petitioner pledging himself to plant more than half a million shells annually.



NICARAGUA

The consul general of Nicaragua in New Orleans has advised the press that a large cattle company of that city offers to invest money for the construction of a **HIGHWAY** between the Atlantic coast district of Nicaragua and the interior of the Republic. Preliminary steps have also been taken for the establishment of an abattoir at Rama City, equipped with a refrigerating plant. It is proposed to export fresh meats from Nicaragua and to utilize the abandoned grazing lands of the coast in fattening cattle for the export trade. The Government is cooperating in stocking the country with cattle, and a bill was recently introduced into the National Congress regulating the exportation of cattle on the hoof and discouraging the same by placing a tax of 2 cordobas (\$2) a head on cattle exported and prohibiting the sending of female cattle out of the country, as well as of males under 3 years old.—The Eden mine near Prinsapolka recently forwarded to Bluefields a shipment of 1,161 ounces of fine **GOLD**, valued at over \$23,000.—The Bluefields American

states that during the past year a number of geologists have visited the Atlantic coast section of the country in search of OIL, and that advices have been received from Managua to the effect that a large company has been organized in the federal capital to work the recently discovered oil fields of the Atlantic coast section of the Republic.—A MEDICAL ASSOCIATION of the Atlantic coast of Nicaragua has been organized to promote interest in the study of tropical medicine and to cooperate with the national medical faculty at Leon in enforcing the laws of the country relating to the practice of medicine. The association will be duly incorporated. Registered physicians in Nicaragua in good standing are to be made honorary members of the local association and will be requested to cooperate with the local board. The association will endeavor to suppress illegal medical and pharmaceutical practice.—According to a recent report of the deputy collector of customs of Nicaragua, the INTERNAL DEBT of that country at the present time is about \$11,000,000, of which \$6,300,000 is held by Nicaraguans and the remainder by foreigners. The commission of public credit, established in accordance with the law of February 14, 1917, will examine, classify, and consolidate this debt by using the unexpended moneys remaining from the purchase of the canal option rights under the treaty with the United States and a reasonable amount of internal bonds. This commission will also make agreements with creditors when this method is necessary and is for the mutual advantage of both parties.—The Government of Nicaragua has given permission to the Eden Mining Co. to establish a high-power WIRELESS telegraph station at its mines in the Pis-Pis district. The plant is to be ready for service on or before the end of August, 1917.—The contract for the exploitation of OIL on a large scale throughout the Republic, made by the Government of Nicaragua with Lincoln Valentine, an American capitalist, has been submitted to the Nicaraguan Congress for approval, modification, or rejection.—In 1916 the EXPORTS OF LUMBER from Nicaragua consisted of 3,000,000 feet from the Pacific and 8,600,000 feet from the Atlantic coast, according to statistics published by El Heraldo, a newspaper of Bluefields. These exports were made up of cedar, mahogany, and other cabinet woods.



A decree has been issued regulating the dock service of the MARKET WHARF in the city of Panama. Sailing and steam vessels which anchor at the wharf are required to use their own cables and are only entitled to receive assistance of the company when the vessels

are in danger from storm or other causes. The loading and unloading of vessels is to be done by employees of the company. Unloading must be accomplished within 48 hours after docking, and if a longer time is required a storage charge of 2.5 centavos per package for each 24 hours additional will be collected. Persons who have acquired space at the wharf by a special concession of the Government are entitled to have the employees of the wharf move their cargo to said space without charge, but the handling of the cargo thereafter will be for account of the owners of the same.—The Panama Morning Journal states that among the recent improvements made in the Canal Zone are many miles of surfaced and ASPHALT-CONCRETE ROADS, some of which rank with the best in the world and make automobiling delightful in that section the year round. There is no road directly across the Isthmus, but automobiles run on the Pacific end of the Canal Zone as far to the northwest as the Chagros River, as well as in the city of Panama, the Sabanas district in the direction of the ruins of Old Panama and the Juan Diaz River, the combined length of these roads, including streets, aggregates 85 miles. Another automobile section is at the Atlantic or northern end of the Canal, including the cities of Colon and Cristobal and the highway to Gatun, or a total length of 17 miles. The third area is on the west side of the Canal and includes the villages of Culebra, Empire and Las Cascadas, as well as a road from Empire to the Canal Zone boundary, a combined distance of 18 miles. There are about 600 automobiles licensed in the Republic of Panama and the Canal Zone. The speed limit is 25 miles an hour on straight roads and 12 miles on city or village streets, or when approaching another vehicle, or traveling over curves, forks, or crossroads. Chauffeurs are required to carry identification cards.—Recent changes in the commercial code of Panama require FOREIGN COMPANIES doing business in the Republic to have duly authorized representatives stationed there. Such companies must also invest not less than \$100,000 in real property, or make a bank guarantee deposit of not less than \$50,000. New banks can not be started without the permission of the President, and all banks are required to maintain on hand in cash not less than 20 per cent of the amount of their deposits. The law requires commercial concerns to keep their books and conduct their correspondence in Spanish. Agricultural banks are exempted from the provisions of this law concerning the establishment of new banks.—An executive decree of June 5 prescribes that on and after October 1, 1917, the following NATIONAL CODES, approved by law No. 2 in 1916, will become operative: The Civil, the Commercial, the Penal, the Judicial, the Fiscal, and the Mining codes.—The Congress of Panama has approved a contract for the construction of a RAILWAY on the Atlantic coast from the mouth of the Chagros River to the city of Almirante.—According

to press reports the Sinclair Oil Corporation, an American enterprise, has arranged with the Government to prospect for and exploit PETROLEUM deposits in Panama.—A charter has been granted to the SHRINERS of Panama to build a temple on the Pacific side of the Isthmus, probably at Ancon near the boundary line of the city of Panama.—A recent executive decree provides for the appointment of a commission to study and recommend means for increasing the production, distribution, and conservation of FOOD SUBSTANCES in Panama and the Canal Zone.—The foreign trade of Panama for 1916 was: Imports, \$9,197,454; exports, \$5,506,725; total, \$14,704,179. This represents a total increase over the preceding year of \$2,244,224—in imports, \$160,255, and in exports, \$2,083,970. The figure of exports in 1916 was the largest for the last 10 years, exceeding the figure for 1913 by over \$120,000. Of Panaman imports in 1916 over 72 per cent were from the United States, and of exports, 98 per cent were to the United States.



PARAGUAY

Recent investigations published in La Tribuna, daily newspaper of Asuncion, show that WHEAT grows luxuriantly in the hill regions of the Republic, and especially in the neighborhood of Villarrica, where the rainfall and climatic conditions seem to be most appropriate for the cultivation of this cereal. A virgin field for the growing of wheat and other cereals is found in the Paraguayan Chaco, and particularly along the boundaries of the Bolivian and Argentine frontiers at high elevations.—The Mercantile BANK of Paraguay, which was founded in 1890 at Asuncion, operates branches at Concepcion, Encarnacion, Paraguari, Pilar, and Villarrica. It has a paid-up capital of 25,000,000 pesos, currency, and a reserve fund of 12,500,000 pesos, currency. This bank pays 3 per cent per annum on current accounts and 7 per cent on savings accounts. The Bank of the Republic, with headquarters at Asuncion and a branch bank at Encarnacion, has a capital of 20,000,000 pesos, currency, as has also the Bank of Spain and Paraguay in Asuncion.—According to a recent report of the Paraguayan Sugar Association the refining of SUGAR was commenced in the Republic more than 20 years ago. The sugar-cane fields have at various times suffered from drought in summer and from cold in winter. The 1916 crop was less than that of 1915, and the prospects for a large production of sugar cane in 1917 are not very flattering owing to damages caused by dry weather and injury by locusts.—The official organ of the Board of Trade at Asuncion is authority for the statement that a company has been

organized in the national capital having at its disposal \$500,000 gold to invest in the exploitation of the KAOLIN DEPOSITS at Tobati. From 1820 to 1830 these deposits were extensively used in the manufacture of pottery for local consumption, and recently considerable activity has been shown in producing this class of merchandise at Ita to supply the demand for articles of this kind which were formerly imported from Europe.—According to press reports the Ybycui IRON FOUNDRY has been taken over by a syndicate and will soon commence operations. Iron ores are said to exist in abundance not only at Ybycui but also throughout a large zone of the Upper Parana River, so that large quantities of raw material are available for the operation of the plant.—On May 14, 1917, the Republic of Paraguay celebrated the one hundred and sixth ANNIVERSARY of the initial movement of its independence. On that date in 1811 Pedro Juan Caballero and his followers took possession of the barracks at Asuncion, thereby starting the movement which resulted in the throwing off of the yoke of Spain and in political independence.—The Departments of the Republic of Paraguay which are specially noted for the cultivation of RICE are Villeta, Ita, Itagua, and Guarambare. The annual production of this cereal is, in round numbers, about 1,000,000 kilos, most of which comes from the Departments of Villeta and Guarambare. Recent experiments have shown that parts of the Paraguayan Chaco are particularly well suited to the growing of rice, and its production in that section of the country is yearly increasing.—The exports of CATTLE from Paraguay in 1914, according to statistics published in *El Liberal*, a daily paper of Asuncion, were 24,385 head, as compared with 29,509 head and 28,455 head in 1915 and 1916, respectively.—The new PACKING PLANT at Puerto Frigorifico, on the Paraguay River near Asuncion, is a well-equipped establishment now in active operation under American management. The plant occupies the site of the old sugar factory at Ceballos-cue and is about an hour's ride in motor boat down the Paraguay River from Asuncion.—The Typographic BENEVOLENT SOCIETY of Paraguay, with headquarters in the national capital, has elected the following officers: G. Recalde, president; R. Ayala, vice president; E. R. Melgarejo, secretary; and E. Alvarenga, treasurer.



PERU

SHEEP RAISING IN PERU is confined chiefly to the Cajamarca, Junin, Ayacucho, Anta, Acomayo, Canas, Cuzco, Chumbivilcas, Arequipa, La Libertad, Ancachs, and Puno districts, where large herds graze on the nutritious grasses of the Peruvian plains. The

sheep of Peru are principally grown for their wool. An English sheep ranch 3 leagues west of Junin has an altitude of 14,000 feet and extends over an area of 54 square miles. Sheep from this ranch yield from 2 to 6 pounds of wool per head annually, according to the breed. The sheep industry of the Republic, which is only in its infancy, could be developed on a large scale.—The London & Pacific Petroleum Co. has been authorized to unload and deposit at Talara for reshipment to Chile 10,000 tons of PETROLEUM from California without the payment of duties. Foreign interests have recently filed on 600 claims of petroleum lands situated in the Nazca district. An American geologist from Pennsylvania is expected to soon examine and report upon these claims.—President Jose Pardo has issued a decree convoking CONGRESS in regular session on July 28, 1917.—The TELEGRAPH SYSTEMS of Peru, Ecuador, Colombia, and Bolivia having been united by mutual agreement, the department of telegraphs of the Department of Chile has decided to connect its lines with those of Peru, and through the latter country with those of the countries referred to.—FISHING WITH DYNAMITE has been prohibited in the waters of the Republic of Peru by an executive decree which imposes heavy penalties for infringements of the law.—The Royal Spanish Academy has appointed the following new CORRESPONDING MEMBERS in Peru: Alejandro Deusta, Javier Prado, José de la Riva Agüero, Victor Andrés Belaunde, Oscar Miró Quesada, José María de la Jara, Juan Bautista de Lavalle, and José Gálvez.—A plan for the construction of an AUTOMOBILE ROAD 100 kilometers long and 6 meters wide from Cerro de Pasco to Huánuco is under consideration. Estimates have been submitted showing that 200 laborers could complete this road within a year. The time at present required to travel between the places mentioned is three days. The finished road would enable an automobile to journey over the same in a few hours.—In 1916 the EXPORTS OF COTTON from Peru aggregated 24,603 metric tons, while the exports of cotton seed were 47,135 tons. The exports of these articles were larger last year than ever before in the history of the country. The United States took some of this cotton, but Great Britain was the principal purchaser. The variety of cotton grown in the Department of Piura, and known to the trade as "Aspero," has a long rough fiber and is used in making imitations of woollen cloth. In 1916 there were about 4,000 tons of this variety harvested. The area planted to cotton in Peru is 55,635 hectares (hectare = 2.47104 acres), which produced an average yield of 1.39 tons per hectare. The exports of Peruvian cotton, expressed in metric tons, were in 1909, 21,639; in 1910, 14,106; in 1911, 15,887; in 1912, 19,230; in 1914, 22,933; in 1915, 21,124; and in 1916, 24,603.—The STOCK AND INDUSTRIAL EXPOSITION, which opened in

Arequipa on July 28 last, will close on August 25, 1917. The exposition is divided into three principal divisions—namely, agricultural, stock, and industrial. Arrangements have been made for fine displays of cereals, as well as of potatoes, vegetables, and other food products.—The FIRST NATIONAL MINING CONGRESS of Peru opened its sessions in Lima on July 30, 1917.—Companies established in Peru under contracts made abroad have been given until September 30, 1917, in which to pay REGISTRATION TAXES without incurring the penalties prescribed by law.



SALVADOR

The municipal authorities of the city of San Salvador have opened a NIGHT SCHOOL for females in the national capital. The school was founded with the special object of giving instruction to girls and women who work during the day. No tuition is charged. In addition to the usual curriculum in schools of this kind, special branches will be taught, with the object of training pupils for the better performance of household duties, such as cooking, sewing, preserving of fruits, etc.—A new ICE FACTORY has been established at San Vicente, and preparations have been made to furnish the people of that town with an abundant supply of pure ice. San Vicente now has two ice factories in operation, and is able to supply the needs of the municipality and of the surrounding country.—The PAVING of the principal streets of the city of San Salvador and the laying of the water mains is progressing rapidly. The work referred to is being done by an English syndicate.—The department of agriculture of the Government of Salvador has sent a circular to the governors of the Departments and mayors of the principal towns requesting them to urgently recommend the planting of larger quantities of castor beans, peanuts, flax, sunflowers, cotton, mustard, and other oil-producing plants, inasmuch as these products will find a ready market in the OIL MANUFACTURING and refining plant recently established in the city of San Salvador under a Government concession. The factory proposes to give special attention to the manufacture of vegetable oils for food and medicinal purposes, and will need large quantities of oleaginous seeds.—One of the features of the celebration of ARBOR DAY in the city of Santa Ana on May 3 last was the planting of shade trees by the school children of the municipality on one of the principal avenues of the city. It is proposed to systematically follow this practice year by year, so that when these children grow up they will see the result of their work in rows of beautiful shade trees along the streets

of the town.—A moving-picture THEATER, having a seating capacity of 2,000 persons, was opened to the public in the city of Santa Ana on May 20, 1917.—The Congress of Salvador has enacted a law providing a ROAD BUILDING FUND from a tax levy of 3 centavos (about 1.6 cents) on each liter of rum sold in the eastern zone of Salvador, the proceeds of which are to be used in constructing highways suitable for automobiles between the cities of Jucuapa and Usulután, and Santiago de María and Port Triunfo.—Recently, while investigating the foundations for the wireless telegraph tower in the suburbs of the city of San Salvador, a number of finely wrought and inscribed ANCIENT POTTERY VASES and other utensils are reported to have been discovered. These are to be examined by archaeologists, who will endeavor to decipher the inscriptions and appraise their value from a historical and artistic standpoint.—The sum of 40,000 pesos has been expended in the establishment of HYDROTHERAPEUTIC BATHS in Rosales Hospital in the city of San Salvador.—The wharf company at Acajutla has imported a powerful DREDGE from the United States to be used in cleaning and deepening the port.—The National Government expended for PUBLIC INSTRUCTION in 1916 the sum of 1,174,387 pesos (peso = \$0.586).—The San Martín BRIDGE, which was constructed over the Lempa River at a cost of 460,000 pesos, is soon to be opened to public traffic. The structure is 170 meters long and 6 meters wide.—A cooperative society entitled "Crédito Agrícola Salvadoreño" (Salvadoran Agricultural Credit), has been established in San Salvador. The society will make a specialty of AIDING SMALL FARMERS in such a way as to encourage the development of agriculture in the Republic.



URUGUAY

The President has appointed Dr. Justino Jiménez de Aréchaga SECRETARY OF THE DEPARTMENT OF INDUSTRY, vice Hilario Helguera, jr., resigned.—The department of industry has received a shipment of blooded sheep and hogs from the Argentine Republic to be used at the different Government experiment stations for improving the breeds of this stock.—Conventions have been concluded with the Governments of Argentina and Chile providing for an INTERCHANGE OF PROFESSORS between the universities of Uruguay and the countries mentioned.—The executive power has promulgated a decree prescribing the rules and regulations to be observed in HUNTING in the Republic.—According to data published by the bureau of statistics of the Uruguayan Government,

the last crop of WHEAT harvested in 12 of the 18 Departments of the Republic produced 80,190 metric tons of this cereal. The area sown to wheat was 207,035 hectares.—A recent executive decree regulates the importation, use, and sale of REMEDIES FOR THE TREATMENT OF SCAB in sheep, except where such preventives have been tried and have received the approval of the Government.—The National Nursery at Toledo is furnishing a large number of TREES to be planted in the Republic. A recent decree prescribes that persons owning not less than 100 hectares of land shall be supplied gratis with 100 trees. It is estimated that 100,000 trees will be distributed annually in this way. The nursery referred to will donate to rural communities, schools, police farms, etc., 100,000 trees during the present year, and 200,000 trees yearly thereafter.—The bureau of statistics of the Uruguayan Government has published data showing that the POPULATION of the Republic on December 31, 1915, was 1,346,161 inhabitants, 977,541 of whom lived in the 18 departments of the nation and 368,620 in the municipality of Montevideo. The population on the same date in 1916 was 1,378,808, of whom 1,004,844 were in the departments and 373,964 in the national capital. The area of Uruguay is given as 186,926 square kilometers, and the average density of population per square kilometer 7.37 persons.—An executive decree of May 4, 1917, prescribes the studies which must be followed in the COMMERCIAL HIGH SCHOOL in Montevideo during the four years' course required for graduation from that institution.—The Uruguayan Senate has approved a bill appropriating 60,000 pesos (peso = \$1.0342) for the purchase of SEEDS to be sold to farmers on easy terms. A revised estimate indicates that three or four times this sum will be required to adequately supply the needs of agriculturists, and, in view of this fact, the State Insurance Bank of Montevideo has arranged to negotiate a loan for such an amount as may be necessary, contributing for this purpose as its quota 50,000 pesos. The seed commission will provide growers with oats and linseed for planting. Experiments are being conducted by the Government at the agricultural stations of the Republic concerning the cultivation of oats for forage purposes.—The sowing of ALFALFA in Uruguay from seed grown in the Argentine Republic has resulted in the production of about 50 per cent more than that obtained from the sowing of French seed. The Government of Uruguay has, therefore, decided to procure its seed from Argentina in the future.—A decree of April 26, 1917, prescribes that only the Uruguayan flag may be used on SHIPS UNDER URUGUAYAN REGISTRY engaged in the foreign trade, and requires both owners and masters to be Uruguayan citizens.—The Montevideo WATERWORKS has profits available for distribution from the

earnings of 1916 amounting to £165,684.—El Salto HOSPITAL is to be enlarged, the estimated cost of the work aggregating 177,000 pesos.

The department of foreign relations of the Government of Uruguay has furnished the MONTHLY BULLETIN with the following data:

A decree has been issued prohibiting the consuls general of Uruguay from granting to vessels which navigate without a provisional permit permission to discontinue FLYING THE URUGUAYAN FLAG until the true nationality of the flag of the country to which they belong is established. This was done because the reports of the maritime officers of the Government and the registry records of the marine department show that foreign shipowners request provisional permits solely for the purpose of profiting in the purchase and sale of vessels, inasmuch as within the term of their voyage, that is to say, one year, they sell said vessels and place them under the flags of other nations.—NAVIGATION LICENSES issued by the Uruguayan Government to the national vessels hereinafter mentioned have been canceled for failure to make coastwise voyages during a period of five years: *Antonia*, *Josefita*, *Lino*, *Luis M. Moragues*, *Maria Lorenza*, *Pedro*, *Pilar*, *Port Sonachan*, *Uriarte No. 4*, and *Alfredo*.—In order to limit at this time the number of vessels sailing under the national flag, a decree has been issued forbidding the use of the Uruguayan flag by vessels whose owners, lessees or captains are not naturalized or native citizens of the Republic. Vessels which have obtained provisional permits from Uruguayan consuls are required to report at Uruguayan ports within a period of six months, which term shall not be extended, with the object of obtaining PERMANENT NAVIGATION LICENSES. Vessels having no national navigation license shall make not less than two round trip voyages annually to ports of the Republic. Vessels which fail to comply with the provisions of this law shall be considered withdrawn from the national registry and their respective licenses ipso facto canceled.—The President has promulgated a law establishing a DIVISION OF THE FLEET, attached to the department of war and marine, having the supreme control of the maritime forces of the Republic, and command and supervision over the personnel and services, respectively, of the general maritime, fluvial and coast defense, and possessed of other powers conferred upon it by the military rules and regulations of the country in accordance with the nature of its duties and, by analogy, those of the general staff of the army applicable thereto.—A decree has been issued by the departments of foreign relations and of war and marine, in accordance with a law of April 6 last concerning the use of the Uruguayan flag by vessels and the provisions of section 5 of chapter 18 of the rules and regulations of the consular law of January 12, 1917, under which consuls are not authorized to issue PROVISIONAL NAVIGATION PERMITS to vessels said to be for registry in Montevideo, even though they show that they are not under the flag designated by the consular authorities of the country to which they formerly belonged. This rule was made in order that the new law concerning flags, which requires that a detailed inquiry concerning vessels desiring to register in the Republic, be made, as well as an examination of their papers relating to owners, lessees, and captains. The suspension of the authority of consuls to issue provisional navigation permits to vessels is to be effective during the continuance of the European war.—The President has sent a message to the General Assembly accompanied by a bill recommending the reorganization of the CHARITY BOARD (*Asistencia Pública*), the latter to be governed by a board of directors composed of the director general of "Asistencia Pública" and nine members, seven of whom are to be appointed by the President, one by the Faculty of Medicine of Montevideo, and one elected by the technical staff of the charity board.—The President's message to Congress reviewing the financial situation of the country was accompanied by a proposed law modifying the SANITARY LAW applying to the cities of Salto, Paysandu, and Mercedes, in so far as it refers to the

taxes set aside for the payment of the bonds issued and to be issued for the work contracted to be done by the Ullen Co. It is estimated that the tax revenues in accordance with this new proposal plan will represent, approximately, in 1918 and following years, 243,209 pesos (peso=\$1.0342), or half the amount of the annual service of the total bonded indebtedness referred to.—The executive power has issued a decree regulating the law of August 16, 1916, which establishes a new fiscal ruling concerning the importation of SILK FABRICS. Silk cloth, fabrics, or silk goods, which weigh up to 40 grams per square meter shall be dispatched at the conventional value or appraisalment of 12 pesos (peso=\$1.0342) per kilo. The same goods, containing up to 70 per cent of other fibers, shall be appraised proportionately according to the percentage of silk which they contain. Silk stuffs weighing more than 40 grams per square meter shall have a value or appraisalment of 10 pesos.—The chancellery, together with the Bolivian minister, Sr. Ricardo Mujía, has signed the following CONVENTIONS: General compulsory arbitration; acknowledgment of educational certificates, and rogatory and coastwise letters.—The Senate has approved a law regulating the professions of auditor and MERCANTILE EXPERT.—The executive power has submitted to the General Assembly a bill approved by the minister of public instruction requiring seven years study to obtain the degree of DOCTOR IN MEDICINE AND SURGERY.



VENEZUELA

The MESSAGE which Dr. V. Márquez Bustillos, Provisional President of the Republic, delivered to the National Congress on May 3 last stated that a treaty ad referendum had been made with the Republic of Colombia by which disputes pending between the two countries are to be settled by arbitration. The treaty in question is soon to be submitted to the consideration of the National Congress. Notwithstanding the abnormal times existing throughout the civilized world at the present time, the Executive states that foreign capital still continues to come into the country for investment in industrial and agricultural enterprises.—The department of agriculture has arranged, through its experiment station in Caracas, for the distribution of SEEDS to farmers who agree to plant the same, keep a record of the results, and return to the chief of the experiment station in the national capital a quantity of selected seed equivalent in weight to that received from the Government. If the persons receiving the seed prefer to pay for same in money instead of kind they shall be charged three times the prices indicated in the blank form furnished them at the time the allotment of seed is made by the Government. The record kept must show the area planted, the approximate elevation above sea level, the kind of soil, the time of flowering, the time of ripening, the quantity harvested, and the price of the product in the local markets at the time the crop is gathered.—Rules and regulations have been issued by the SCHOOL

OF ARTS AND CRAFTS for males in Caracas, as well as a detailed specification of the studies required in every branch of the four-year curriculum.—The Government of Venezuela has leased to Dr. Rafael Cabrera Malo lands containing undeveloped deposits of ASPHALT, PETROLEUM, and similar substances, situated in the municipality of Antonio Diaz, Territory of Delta Amacuro. A similar concession has been made to Dr. Gustavo Nevett covering the same kind of deposits in the Campo Elias district, State of Merida. The lessees agree to begin development work on these deposits within the next 18 months.—Antonio José Calcaño Herrera has been authorized by the department of fomento (Promotion) to construct and operate a telephone line between a number of towns in the District of Roscio, State of Bolivar.—FOREIGN DRAFTS on Venezuela firms are subject to a graduated stamp tax, varying according to the amount of the draft, from 0.05 of a bolivar in the case of drafts of a value of from 25 to 50 bolivares to 1 bolivar on drafts of from 501 to 1,000 bolivares (Bolívar = \$0.193).—Recent press reports state that the Maracay, Venezuela, PAPER FACTORY has resumed operations, and will use in the manufacture of news and wrapping paper the native fibers and grasses of the country. This factory, which was completed in 1915, has been shut down for some time.—The Royal BANK of Canada has opened a branch in Maracaibo, and is prepared to do a general banking business in northern Venezuela.—On June 12, 1917, the President of the Republic promulgated the new law enacted by Congress concerning RAILWAY CONCESSIONS. This law provides that railways built under concessions shall belong in perpetuity to the parties constructing them, but owners of railways in Venezuela are prohibited from transferring them in whole or in part to any foreign Government. In accordance with the former law railways built under concessions reverted at some specified time to the Government. It is believed that the new law will be the means of attracting capital to Venezuela for investment in railway enterprises.—The ELECTRIC TRAMWAY from the city of Maracaibo to Maracay commenced operations on May 18 last.

