

STACK  
ANNEX

5

033

041

CONSULADO GENERAL DE BOLIVIA

*Bolivia*

*and the opening of the*

*Panama Canal*

GENERAL INFORMATION ON BOLIVIA

MINERAL RESOURCES

*Bolivia*

*y la apertura del*

*Canal de Panamá*

1912

NEW YORK

A

0  
0  
0  
0  
9  
1  
1  
4  
6  
1



UC SOUTHERN REGIONAL LIBRARY FACILITY

# INDEX.

	PAGE
Introduction .....	1
Railroads to be opened.....	2
Look for increased commerce.....	2
Railroad development .....	3
Progress on Madeira-Mamoré Railroad.....	4
Bolivia Railway Company .....	5
General Information on Bolivia.....	6
Area, Population, Commerce .....	6
Products, agriculture, mines, public debt.....	7
Rubber .....	8
Navigation on Titicaca Lake .....	8
Network of Bolivian rivers.....	8
Various routes to Bolivia.....	8
International Postal Union .....	8
Telegraphic net of Bolivia.....	8
Vias to Bolivia through foreign ports.....	9
Products and Industries .....	9
Tin .....	9
Coal .....	11
Bismuth .....	11
Rubber .....	11
Cacao .....	12
Coffee .....	12
Coca .....	12
Cattle .....	12
Mineral Resources of Bolivia.....	12
Gold Mining .....	12
Mining Regulations .....	14
Routes of Travel .....	15
The Press of Bolivia.....	15
Rates for newspaper advertisements.....	16
List of Bolivian newspapers for advertisements.....	16
Banking in Bolivia .....	17
List of national issue banks and their capitals.....	17
List of mortgage banks and amount of bonds issued.....	17
Consulates of Bolivia in the United States.....	17
“Bolivian Tariff and Appraisement Schedules”.....	17
Bolivia y la apertura del Canal de Panamá (Artículo del <i>New York Herald</i> ) .....	19-24





LA PAZ.

Principal Town in Bolivia, showing snow mount "Illimani" 22,390 feet high.

**Bolivia**  
*and the opening of the*  
**Panama Canal**

○ WING to the interest awakened in the United States to further business relations with the Spanish-American republics on account of the opening of the Panama Canal, a reporter of the *New York Herald* obtained from Señor Adolfo Ballivian, Consul General of Bolivia, and from other gentlemen, the following information about Bolivia:

“I am sending all these clippings to my government,” said Mr. Ballivian, “to support me in urging that my country should lose no time in making full preparations for the opening of the Panama Canal. I have been very much interested in the articles in the *Herald* dealing with South American affairs and have kept them all carefully.

“I find that other countries are alive to the importance of the new highway, and I do not want my own country to be behind. I have no doubt that when communications are made so much easier the United States will take the lead in the commerce of the west coast of South America. Preparations to take care of the trade are already being made here. I am anxious that my government should meet these efforts at least half way.

“I am recommending as a first step that the scope of this Consulate should be considerably widened. I want to establish a fully equipped bureau of information here. I want to make it possible to answer all kinds of inquiries about commercial opportunities in my country, so as to foster trade as much as possible. I want to have samples of the various products of my country, so that we can show importers here exactly the kind of goods we have to offer.

“I have had several inquiries from American exporters and manufacturers as to the best methods of making commodities known in Bolivia. I want to have established here some central agency which could take advertisements and arrange to have them appear in the various newspapers and publications in my country.

## ***Railroads To Be Ready Soon.***

"Railroad developments which were undertaken in Bolivia several years ago will be completed about the same time as the Panama Canal, or perhaps a little earlier. These developments will add to the effect of the work your government is doing. At present the Pacific coast trade must enter Bolivia either by way of Mollendo, in Peru, or Antofagasta, in Chili. Under an agreement with the government of Chili a new railway is being built from Arica, on the coast of Chili, to La Paz, in Bolivia, which will cut down the time of the journey at to at least a third and will bring La Paz within eight or ten hours of the coast. It is a particularly good omen that these two big undertakings should be completed at about the same time. \*

"At present merchandise going by the Panama route and by Mollendo suffers a very great deal in transshipment. It has to be transshipped at Colon, then again at Panama, and several times again after it reaches the port of Mollendo. From Mollendo to La Paz there is no through route at present. The journey must be made in three stages. The first stage is by rail to Puno, on Lake Titicaca. At that point the merchandise must be transferred to the steamboat on the lake; then to Guaqui, the port of La Paz, to which city it is finally conveyed by rail.

"I have calculated that merchandise shipped by this route is handled twenty-one times. When the service by the Panama Canal is opened and the Arica-La Paz Railroad is in operation this number will be cut down to eight. It is easy to see that this means a great deal in decreased freight charges, leaving savings in time out of consideration altogether. The time taken in transportation will be cut in less than half.

## ***Look for Increased Commerce.***

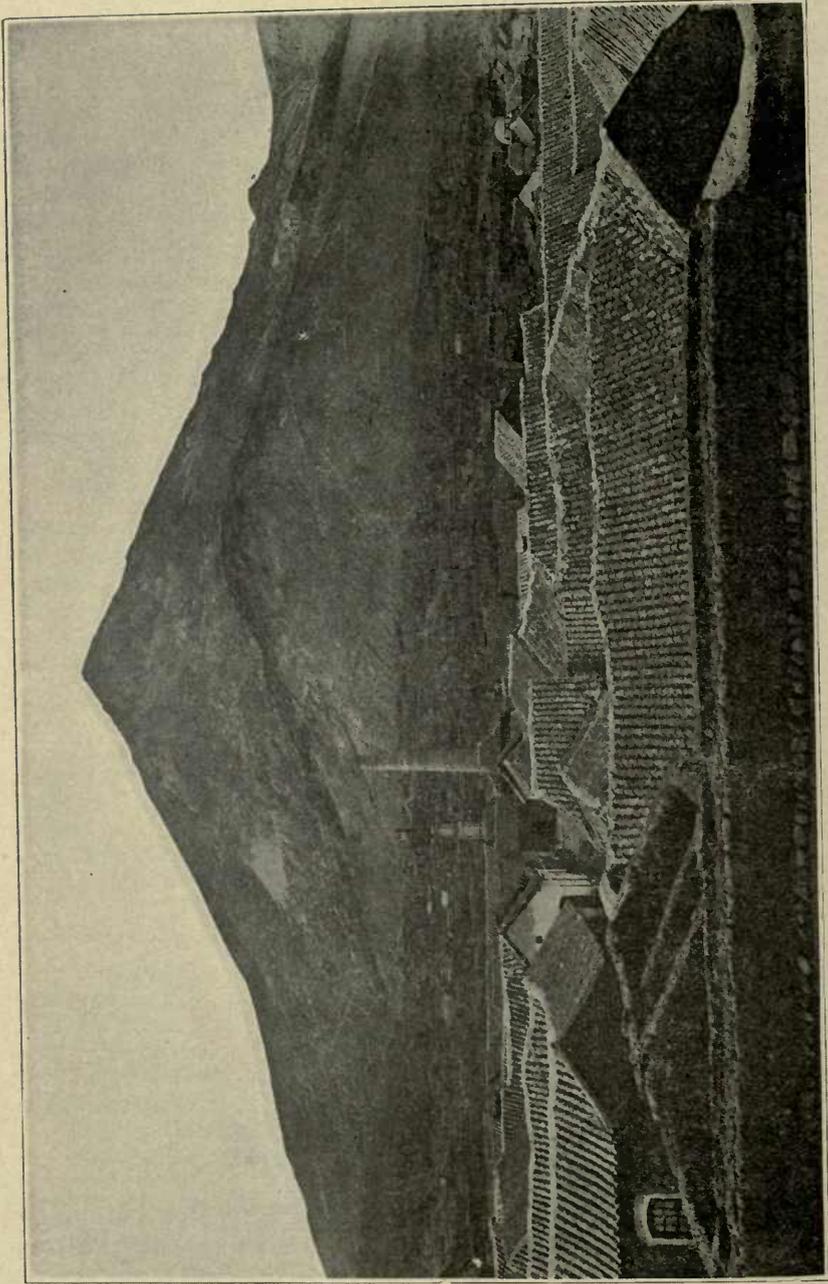
"The foreign commerce of Bolivia is not yet big. Not because the possibilities are not big but because so far we have lacked the means of transportation. Now that these are to be supplied we should see a great increase. In my office we have just completed the returns of the exports sent from New York to Bolivia for the fiscal year 1911. The total of the exports was \$1,215,986. The biggest single item in this total was cottons, \$389,234. Next came machinery, about \$130,000, and then explosives, with \$127,559.

"I am not in possession of complete figures of the export and import trade of Bolivia, but these figures for the imports into Bolivia for the last five years give an idea of the way the business has grown. In 1906 our total imports were valued at 35,087,325 bolivianos; in 1907, 37,897,610; in 1908, 40,732,543; in 1909, 34,224,764, and in 1910, 48,802,394. Our total exports in 1910 amounted to 75,622,147 bolivianos. It is easy to convert these figures into American money, as a boliviano is equal roughly to forty cents.

---

\* As this pamphlet goes to press, a cable from Valparaiso dated March 2nd advises that the rails of the Arica-La Paz Railway have been united, the work having commenced simultaneously at both ends. On August 6th next, the Bolivian National Feast, the Presidents of Chili and Bolivia, will make the official inauguration.





CITY OF POTOSI, founded in 1545 and that to 1864 produced over 3,631,000,000 pesos. "Rich as a Potosi" is a proverb well known among Spanish-speaking people.

"Minerals and rubber are the two chief articles with which Bolivia pays for the things she imports. Bolivia is very rich, but like misers, the people of Bolivia keep their wealth hidden. It is underground. It needs to be brought to the light of day to be useful.

"It seems strange to-day to think that before Boston was founded, Potosi, one of the cities of Bolivia which has only a small population now was the home of 160,000 persons. In the days of Spanish conquest it afforded immense wealth in silver. The *sugar loaf* mountain there is honeycombed with mines. There are at least five thousand shafts in it. The mining industry in my country was, however, badly hit by the depreciation in value of silver. Very little silver is mined to-day. Lowering of freight rates because of the new routes of transportation may, however, cause a revival.

"In 1910 the total value of silver exported was 5,476,398 bolivianos, while the value of the tin sent out was 37,006,504. Tin has taken the place of silver and now Bolivia is one of the big tin producing countries of the world. It is the only country in South America in which tin has been found at all.

### ***Railroad Development.***

"Bolivia has not yet been used as a field for American capital to a very great extent. An American syndicate obtained a concession to build five hundred miles of railroads about five years ago. They worked for two or three years on it and then control passed to an English company, which already operated the Antofagasta Bolivia Railroad.

"Another railroad undertaking which is being carried through by Americans, however, and one which will be of untold benefit to Bolivia, is that of the Madeira-Mamoré Railroad. It is being built in Brazilian territory, but it will prove of great assistance to Bolivia.

"Bolivia is unfortunate in not having any port. She is one of the few South American countries without seaboard. Though one-quarter the size of the United States, her territory is entirely inland. A large part of this area is on the east of the Andes, a very productive territory and enormously rich in rubber. Up to now the development of that section has been held back by the want of transportation. The main outlet is through the Mamore and Madeira rivers to the Amazon, but it is very dangerous because of rapids in the rivers. The rapids have been very destructive both to lives and treasure.

"The importance which my country attached to a satisfactory outlet to seaboard by this way is shown by the fact that about forty years ago the government guaranteed the expense of an attempt to build a railroad to carry merchandise 'round the rapids even though it was to be built in foreign territory. The attempt, however, failed and has been renewed only in recent years. About nine years ago, by an agreement with Brazil, which received a cession of Bolivian territory undertook to build a railroad round the rapids. The concession for the building of the railroad was given to a Brazilian, who called in Americans to do the work. It is now nearing completion and its bonds are being eagerly awaited."

## ***Progress on Madeira-Mamoré Railroad.\****

As to the progress on the Madeira-Mamoré Railroad, Mr. Rodney D. Chipp, treasurer of the Madeira-Mamoré Railway Company, of No. 115 Broadway, said yesterday:—"Though the progress of the work on the railroad revealed unexpected difficulties, we expect to have it in operation next June. We have been working on it now for five years.

"The difficulties encountered were climatic, not engineering. We tackled the difficulties along the lines which proved so successful in the Panama zone. We made a model town of Porto Velho and established a hospital there. We sent down a competent staff of doctors and nurses to man it.

"Our undertaking was, practically speaking, a new one. The idea was old and in fact an attempt had been made in the seventies to build a railroad there by a Philadelphia concern, but the attempt failed. When we began operations the old work was entirely overgrown.

"We are building rather more than two hundred miles of railroad 'round the falls and cataracts of the Madeira and Mamoré rivers. This railroad will connect the navigation of the Amazon and Madeira rivers below the falls with the thousands of miles of navigation in Bolivia and Brazil above said falls. These falls and rapids on the rivers interrupted the navigation here for about two hundred miles except by canoes handled by Indians. Although the Indians acquire and use great skill and handle almost incredible difficulties, the loss of life and merchandise is enormous. The loss of merchandise is estimated at twenty per cent. It can be readily seen what a saving the railroad will make possible, and considering the enormous area tapped, what the possibilities awaiting development are.

"We have down there a large force of engineers and mechanics from the United States. The rails are Belgian, while the rolling stock and locomotives are American made. For ties we have used the native hardwoods and have also imported some from Australia. The opening of the section at that time completed took place last September."

The president of the Madeira Mamore Railway Company is Percival Farquhar. Mr. Farquhar is interested in many railroad properties in Brazil. It was reported some time ago that he and Dr. F. S. Pearson, another American who has done pioneer work in the Brazilian traction field, had attempted to obtain control of a transcontinental system of railroads in this country, and that the attempt had not been successful.

## ***Bolivia Railway Company.***

Mr. J. G. Metcalfe, vice president of the Bolivia Railway Company and formerly the company's president, told a *Herald* reporter that during the early period of construction of the railroad he spent several months in Bolivia and the adjoining countries.

---

\* Since last February this railroad is transporting cargo from and to "Porto Velho," "Villa Murlinho" in front of "Villa Bella" the Bolivian Custom-House. The official inauguration will be on the 4th of July of this year. A. B.

"I found Bolivia a country very rich in mineral resources," said Mr. Metcalfe, "and the people very fine to do business with. The Bolivia Railway Company was originally American. The concession to build about five hundred miles of road was obtained by the National City Bank and Speyer & Co. The lines contemplated included lines from Viacha to Oruro, Oruro to Cochabamba, Rio Mulato to Potosi and Uyuni to Turpiza. The line from Viacha to Oruro is already in operation and the line to Potosi will be opened next month. Construction is going ahead on the other sections.

"The work continued for about three years under the American control and then control passed to an English company. This English company was already operating a line from Antofagasta to Oruro. As a matter of fact the lines built and building by the Bolivia Railway Company form extensions and spurs to this road and now the two are operated as one system.

"The engineering difficulties in the Bolivia Railway Company's undertaking are not nearly so great as those in some other railroads. It is true that the altitude is great—it never goes below 12,000 feet—but the greater portion of the road is on the fairly level pampas, the great Bolivian plateau, and not through mountainous country where frequent change of grade is necessary.

"So far not very much American capital has gone into Bolivia. So far as I know there are no large scale American mining enterprises, for example. Such mining properties have been developed by small capital. The government, however, is anxious to induce foreign capital to enter the field and is offering inducements, both in mining and rubber production. I found the men in authority eminently fair and very business like. It was very much easier to get 'Yes' or 'No' there than it is in Washington.

"Apart from the freight traffic I expect to see Bolivia come to the front as a tourist country after the Panama Canal is opened. Already it is being largely patronized. On some of the cruises which touch at the different ports on the west coast passengers leave the steamer at Mollendo, go up to La Paz by way of Lake Titicaca and then rejoin the steamer at Antofagasta by way of Oruro and Uyuni. A more delightful trip can hardly be imagined. The tourists cross the Andes twice or at least one range of these mountains, and they pass through the country rich in marks of ancient civilization and which speaks of the wonderful achievements of the Spanish conquerors. It is a wonderful country, which we are only just beginning to hear about."

## General Information on

# BOLIVIA

### AREA, POPULATION, COMMERCE, PRODUCTS, ETC.

(*Extracts*)\*

---

Bolivia is one of the few countries on the American continent which possesses no sea coast. Completely surrounded by Peru, Chile, Argentina, Paraguay, and Brazil, it extends over 708,195 square miles and has a population of 2,267,935, being the most sparsely populated of the American Republics. The vast plateau which extends in length over 500 miles, at an average altitude of 12,000 feet above sea level, and on which are situated most of the larger cities of the Republic, is the most noted topographical feature of the country.

The mountains of Bolivia abound in mineral wealth, tin, silver, gold, copper, etc., and these form the principal products of export. Coffee, cacao, tobacco, sugar cane, and other crops are successfully cultivated. The forests contain numerous species of valuable woods, the best known of which are the *hevea brasiliensis* and the *castilloa elastica*, from which india rubber and caoutchouc is gathered; the *erythroxyton coca*, the leaves of which are used for medicinal purposes; and the well-known cinchona tree, the bark of which is used for the manufacture of quinine.

The largest city and commercial center of Bolivia is La Paz, with a population of 80,000. Other cities with a population of over 20,000 are Sucre, Cochabamba, Santa Cruz, Potosi, and Oruro.

During 1909 Bolivia made steady advances, the most noticeable improvement being the gain in foreign commerce of almost \$2,000,000. The balance of trade was in favor of the Republic, as the exports far exceeded the imports, and while the imports fell somewhat short of those of 1908, exports on the other hand, for 1909 exceeded those for 1908 by \$3,500,000.

---

\* Most of these extracts are taken from publications of the "Pan American Union of Washington."

In railroad construction noticeable progress was made. The prospect not only of opening new regions throughout the Republic, but also of affording quicker access to the principal centres by newer and shorter lines was satisfactory.

As far as concerns agriculture, Bolivia is still in a backward state. Notwithstanding the fertility of the plateaus and the marvelous richness of the eastern slopes, the country is still so sparsely settled and so inaccessible that production barely keeps pace with consumption. The great staples of Bolivia—rubber, coffee and cacao—can be produced in far greater abundance than they are to-day, but what is chiefly needed is a larger industrial population. Bolivia is taking active steps for the encouragement of immigration into its undeveloped territory.

Until quite recently Bolivia was in effect a country without a debt. It has yet a very small debt and even with the contraction of a new loan for £1,500,000 the debt will still be well within the limit of its resources. Prior to 1908 the only debt of the Republic was the internal debt. This debt, reduced from time to time from over 5,000,000 bolivianos, is now less than 1,000,000 bolivianos.

It is upon her mineral wealth that Bolivia mainly depends, and present conditions all point to increased activity in the exploitation of these resources through the constantly increasing foreign demand for the mineral products of the country. The mineral wealth of Bolivia, including nearly all known metals, is widely distributed and very rich and abundant. Great veins of ore containing the precious metal are found in the mountains, and while their exploitation is carried on on a considerable scale, yet, due to the lack of labor, capital and adequate transportation facilities, they are not fully developed and in many instances remain entirely virgin. The copper, tin, and bismuth mines of the Republic are among the richest in the world.



Navigation in "callapos"-rafts,  
Beni River, Bolivia.

The production of india rubber must be counted as one of the most important and certain sources of national wealth. The largest rubber-producing districts are located in the national territory of Colonias, the Departments of Beni and Santa Cruz, and portions of La Paz and Cochabamba. The two last-named districts also cultivate cacao and coffee, while the two former contribute other valuable vegetable products. Upland rice is grown to some extent in the province of Azero and Cordillera. A large area of the Republic is well suited to the cultivation of wheat which might be grown in quantities sufficient to meet the needs of the home market, but as yet this branch of agricultural development has been little studied.

A regular line of steamers is maintained on Lake Titicaca, situated at an altitude of 12,900 feet and having an area of 4,000 square miles, being thus not only the highest but also one of the largest lakes on the American continents. Lake Aullagas is connected with Lake Titicaca by means of the Rio Desaguadero. The principal open ports on Lake Titicaca are Escoma, Ancoraimes, Huata, Puerto Perez, Carabuco, and Guaqui or Hauqui.

Bolivia has a network of rivers, which afford excellent means of transportation and communication, the entire length of her navigable streams being about 12,000 miles. Of these the Paraguay River is navigable for some 1,100 miles for steamers of 8 to 10 feet draft; the Itenes for 1,000 miles, and the Beni 1,000 miles, but for steamers of 6 feet draft only, while the Pilcomayo, Mamoré, Madre de Dios, Itonama, Sara, Orton, Baures, Inambari, Paragua, Pirai, Chapare, Abuna, Yacuma, and Desaguadero rivers are all navigable for light-draft vessels for distances varying from 200 to 1,000 miles.

The principal routes to the country are as follows:

*Mollendo route.*—From Mollendo to Puno (Peru), by rail, 324 miles, twenty-two hours; from Puno to Guaqui, by steamer, crossing Lake Titicaca, 180 miles, sixteen hours; from Guaqui to La Paz, 59 miles, by rail, three hours; or a total distance of 563 miles covered in three and one-half days. *Arica route.*—From Arica (Chile), to La Paz, a distance of 337 miles, which was heretofore made by mule and llama, will in a few months be made entirely by rail in from 8 to 10 hours. *Antofagasta route.*—The total distance from Antofagasta (Chile), to Oruro is 573 miles, which can be covered in two days, by rail. The railway is divided into two sections—the Chilean section, from Antofagasta to Ollague, and the Bolivian section, from Ollague to Oruro, via Uyuni. *Amazon route.*—From Para (Brazil), to Villa Bella and Puerto Acre, a distance of 2,152 miles from the former and 2,533 miles from the latter point, covered in two hundred and sixteen and two hundred and forty-four hours, respectively. The entire trip is made in vessels along the navigable rivers of Brazil and Bolivia. *Argentine route.*—From Buenos Aires (Argentina), by rail, to the Bolivian frontier town of La Quiaca, and thence by mule train to Tupiza and Tarija, a total distance of 1,850 miles. From Buenos Aires the trip can also be made up the Paraguay River to Puerto Pacheco, Puerto Suarez, and La Gaiba, in Bolivia, being 1,553, 1,741, and 1,908 miles, respectively distant from Buenos Aires. From Puerto

Pacheco to La Paz the distance is 1,169 miles, from Puerto Suarez, 1,125, and from La Gaiba, 1,158 miles, respectively, by roads and bridle paths. Another route from Buenos Aires is via the Bermejo River, on which steamers ply, between the cities of Esquina Grande, Bolivia, and Rivadavia (Argentina).

Bolivia has been a member of the International Postal Union since 1885, so that all rules and regulations applying to mails within the union govern mail matter destined to the Republic. The postal service, which comprises over 200 offices, handles more than 3,000,000 pieces of mail matter annually. A parcels post and money order convention also exists between the United States and Bolivia.

Extraordinary progress was made during 1909 in linking up the various parts of the country by the building of new telegraph lines and the repair and extension of those already in existence. The telegraph system of the Republic comprises 3,979 miles of lines, and is operated by 124 offices.

No through bills of lading issued to points in Bolivia, except as noted below for La Paz. Shipments are made via the ports in Chile, Peru, Brazil and Argentina named below. For details as to sailings, etc., consult Routes given for those countries.

Beni...	(via Mollendo, Peru; Para, Brazil; or Buenos Aires, Argentina)
Caupolican.....	(via Mollendo, Peru)
Challapata.....	(via Antofagasta, Chile)
Cochabamba.....	(via Antofagasta, or Arica, Chile, or Mollendo, Peru)
Colquechaca.....	(via Antofagasta, Chile)
Concepcion.....	(via Rosario or Buenos Aires, Argentina)
Corocoro.....	(via Mollendo, Peru)
Coroico.....	(via Mollendo, Peru)
Guaqui (Huaqui).....	(via Mollendo, Peru)
Huanchaca.....	(via Antofagasta, Chile)
La Paz..	(via Arica, Chile; Mollendo, Peru; or Buenos Aires, Argentina)
Oruro.....	(via Antofagasta, Chile)
Poopo.....	(via Antofagasta, Chile)
Potosi....	(via Antofagasta, Chile; Rosario or Buenos Aires, Argentina)
Puerto Perez.....	(via Mollendo, Peru)
Puerto Suarez.....	(via Rosario or Buenos Aires, Argentina)
Reyes.....	(via Para, Brazil)
Riberalta.....	(via Para, Brazil)
Salinas.....	(via Rosario or Buenos Aires, Argentina)
Santa Ana.....	(via Para, Brazil)
Santa Cruz.....	(via Antofagasta, Chile)
Sorata.....	(via Mollendo, Peru)
Sucre.....	(via Antofagasta, Chile)
Tarija....	(via Antofagasta, Chile; Rosario or Buenos Aires, Argentina)
Trinidad.....	(via Para, Brazil)
Tupiza.....	(via Rosario or Buenos Aires, Argentina)
Uyuni.....	(via Antofagasta, Chile)
Villa Bella.....	(via Para, Brazil)
Yacuiba.....	(via Rosario or Buenos Aires, Argentina)

## PRODUCTS AND INDUSTRIES

From 1540 to 1750, a period of 210 years, the gold mines of Bolivia produced \$2,100,000,000. From 1750 to the beginning of the nineteenth century the mines and placers situated in the Provinces of Larecaja and Caupolican produced \$14,000,000 gold, and from 1818 to 1868 the output was valued at about \$3,000,000. The product of the other mines and placers of the nation, from the middle of the eighteenth to the latter part of the nineteenth century, is estimated at \$125,000,000. The annual gold production of Bolivia may be calculated at 17,460 troy ounces, which, at \$20 an ounce, gives a value of \$349,200.

### TIN

Bolivia produces one-quarter of the total tin output of the world. Recently tin sold for 1,000 bolivianos a ton. The wealth accruing to the Andean Republic from this source would be a simple arithmetical problem if this price was constant. Fortunately, during the past few years the value of a ton of tin has never gone much below 750 bolivianos, and at that price the Bolivian tin miner is assured a good profit despite the difficulties of transportation.

Tin, as a component of bronze, had its uses as a metal thousands of years prior to the most remote recorded history. As to when it first assumed a separated characteristic composition we have no exact information. In the first century it was definitely known to the Greeks, but it may have been in existence in the days of Moses. At a somewhat later period of the Jewish history it is supposed to have been brought by the ships of Tarish from islands east of the Persian Gulf. The Phoenicians, those early indefatigable traders credited with the discovery of Albion, were the first who found tin in Cornwall, whence they carried it to Italy. The Romans, however, confused tin with lead, calling the former white and the latter black lead. The Latin word stannum did not definitely mean tin until the fourth century.

This metal, or rather tin stone, as the native oxide is called, has a very limited distribution on the earth's surface. The Malay Straits country, the Island of Banka, a limited area in India, and Australia, with Cornwall and Bolivia, are the few places where it is found in sufficient quantities to make the exploitation of tin profitable. Small deposits are found in Alaska, some of the United States, Mexico, Colombia, Peru, while considerable "cassiterite," another name for tin ore, has been dug up in the mineral region of Argentina.

The characteristics of tin are its pure silver-white brilliant color; its flexibility—a remarkable cracking noise is produced upon bending tin; its malleability—tin foil, which is the beaten metal, being hammered out to 1/1000 part of an inch in thickness; and its quality of hardness, which is somewhere between that of gold and lead. It is ductile, capable of being drawn out into wire, and has little tenacity. Exposed to the elements, it loses its bright color and becomes dark gray. It finds its greatest use as an alloy of other metals.

In extracting the metal the first process is grinding the ore. This ground ore is then washed in order to remove the impurities, the specific gravity being so high that the earthy matter and even some of the foreign metallic ores present are easily eliminated in the washing process. In order to remove other extraneous matter of nearly the same specific gravity, the ore is roasted in a reverberatory furnace and the sulphur and arsenic thus expelled. The ore, thus freed from foreign matter to a certain extent, is mixed with the requisite fuel and limestone and is again subjected to great heat in the reverberatory furnace, in order to bring the whole into a state of fusion, which should continue for about eight hours. The lime unites with the remaining earthy matters in the ore and flows off into a liquid slag, while the coal reduces the oxide tin to its metallic state. The tin thus obtained must, however, be further refined in order to produce the pure metal that commands the highest price.

The uses of tin are limited, but unique. The unalloyed metal is used in making pharmaceutical apparatus and certain infusion pots and evaporating basins of special service. Two varieties of tinfoil are also the product of pure tin—one that serves to silver mirrors and the other as a wrapping for chocolates, tobacco, chewing-gum,





Extracting Rubber in a Bolivian Forest.

and so forth. Making tinfoil is the simple process of hammering out the pure tin into thin sheets with a wooden mallet. Before the introduction of agate ware and other similar compositions tin was largely utilized for cooking and domestic vessels and found favor for this purpose because it was proof against the effects of acid liquids, such as lime juice, vinegar, etc., and because it did not tarnish. Utensils of pure tin, however, were very expensive and had to be made very heavy for their several purposes; thus it is the custom to give iron or copper vessels a coating of tin, which gives the article all the good qualities of tin. "Sheet tin" is sheet iron that has been given a coating of pure tin. However, as already stated, by far the greater part of tin produced metallurgically is used for making tin alloys, and in this form it enters into the make-up of almost every article constructed of metal. Gold and silver coins contain alloys of tin, while it is always found in bronze, lead, and pewter.

The extensive use of tin augurs well for the future economical progress of Bolivia, as the only land in the western continent where tin is found and worked in amounts that repay the investment to-day. The tin zone in Bolivia is divided into four districts—La Paz in the north, Oruro in the center, Choroloque in the south, and Potosi in the east. The city of Oruro is the tin metropolis and commercial center of the industry. The most productive mine in the country is that of La Salvador, which has an output varying from 60 to 90 tons a month. The mining country is much in the Cordillera Real Range, and the lodes are found at altitudes of from 11,000 to 16,000 feet, the height of one in the Monte Blanco mining section, where the offices of the company are, being 14,500 feet above the level of the sea.

Certain economic factors operate against the highest exploitation of tin in Bolivia, namely, the necessarily heavy freight charges, the dependence on the price of Straits tin, the export duty, and the fluctuation of the Bolivian money. In time these handicaps will be overcome and the proceeds of the tin mines of Bolivia proportionately increased. The 1910 production reached 38,500,000 kilos, valued at 37,000,000 pesos bolivianos, or approximately 14,000,000 American gold dollars.

### COAL

A great impetus has been given the exploitation of coal in the Copacabana Peninsula on the Bolivian side of Lake Titicaca, the deposits of which could, according to official estimates, yield 40,000 tons annually. The Government is devoting considerable attention to the industry, the development of which would result in the establishment of tin smelters in the country. Thus Bolivia, instead of exporting its tin mostly in barrillas, as it now does, would ship it in bars. This would naturally enhance the value of the article, besides furnishing employment to a larger number of laborers.

### BISMUTH

The Republic occupies a prominent place among the very few bismuth producing countries, said to be three in all. In Bolivia bismuth is generally exploited with other metals from which its separation is easy. It is found in the mineral zone between Huayna-Potosi, in La Paz, and Chorolque, in Potosi; the principal region is that of Tazna.

It is perhaps a well-known fact that the production of bismuth has been subject to monopoly control. For this reason the prices of bismuth do not undergo any material fluctuations, and it may be noticed that for several years the price of this metal has been maintained at 9,150 bolivianos per metric ton.

From 1904 to 1909 the bismuth exported from Bolivia amounted to 1,220,824,280 kilos, valued at 7,047,399.60 bolivianos, or an annual average of 203,470,713 kilos, valued at 1,174,566.60 bolivianos. At present 1 quintal of bismuth in bars pays an export duty of 10 bolivianos, and 1 quintal of bismuth in small bars, 7 bolivianos, by virtue of the law of February 9, 1910.

### RUBBER

Next to tin the most important product of Bolivia is rubber, the annual export value of which is estimated at \$4,000,000. The exploitation of the rubber lands is regulated by law through an annual export tax. The principal areas lie in the

northeast, near the Peruvian boundary; in the east, in the Province of Santa Cruz; and in the Acre and Beni territory, which is exceptionally rich in its yield. The Acre territory is watered by several large rivers originating in the Cordillera and flowing into the Amazon. These are the Beni, Madre de Dios, the Orton, and the Acre.

Two varieties of rubber plant are found in this district, the caucho, which has to be cut down in order to extract the sap, and the hevea, which is merely tapped. In some cases the trees are tapped for a period of two years, and are then rested for a similar term. Other rubber trees are tapped for six years at a time and then left untouched for a like period. The trees selected for tapping in this section are usually from 30 to 40 years of age, and are expected to yield for 20 years, after which they become useless.

### CACAO, COFFEE, COCA, ETC.

Cacao and coffee are cultivated in the Departments of La Paz and Cochabamba, while other valuable vegetable products are produced in the Departments of Beni and Santa Cruz. Coca, from the leaves of which the alkaloid of cocaine is produced, is one of the most valuable products of Bolivia. It is cultivated in the lower plateaus and temperate regions of the western watershed of the Andes, at an altitude of 650 to 1,600 meters above sea level. Bolivian coca commands a high price in foreign markets on account of its superior quality. Upland rice is grown to some extent, but not in sufficient quantity to satisfy the local demand. A large area of the Republic is well suited to the cultivation of wheat, which might be grown in quantities sufficient to meet the needs of the home market, but as yet this branch of agricultural development has been but little studied. The present Government, impressed with the importance of stimulating agriculture in the Republic, has imported wheat of superior quality from the United States and Argentina for the purpose of supplying a high grade of seed to home growers.

### CATTLE

Cattle, sheep, and llamas are abundant, and to encourage the live-stock industry of the country there is a national veterinary institute and a recently established agricultural school. There are several breweries in the country and a shoe factory; also many minor industrial establishments.

### MINERAL RESOURCES OF BOLIVIA

(BY CARLOS SANJINES, CONSUL OF BOLIVIA, SAN FRANCISCO, CAL.)

.....  
This article will be devoted simply to sketching the mineral resources that at the present moment are attracting the attention of the mining people of the United States.

### GOLD MINING.

Before furnishing some data about the gold industry, a general description of the places in which this precious metal is found may be quoted from the *Bulletin of the International Bureau of the American Republics*.

"The distribution of the metallic belts in Bolivia has always been a matter of wonder to geologists, Raimondi having made the statement that the Bolivian plateau 'is a silver table supported by gold columns.' The gold-bearing belt of the country is divided into three regions. The first extends from the western boundaries of the Republic in the Inambari basin to the eastern frontier on the upper Paraguay. This region embraces the whole mountainous section of the Provinces of Caupolicán, Muñecas, Larecaja, Cercado, Yungas, Inquisivi, and Loaiza in the Department of La Paz; thence it continues through the Department of Cochabamba and ends at the Santa Cruz Paraguayan Boundary. The second region starts in Lipez, extending south through the Province of Chayanta, Sur Chicas (Department of Potosí), Mendez (Tarija), Cinti, and Acero (Chu-

quisaca), as far as Santa Cruz plains. The third region, which perhaps is the richest, extends toward the northwest of the Republic as far as Carabaya (Peru) and the head of the rivers Madre de Dios, Acre, and Purus."

*Exportation.*—The amount of the exportation cannot be determined exactly, because the principal part of the production is smuggled out to avoid the payment of the small tax of 20c. on each ounce exported. In 1902 an estimate was made based on reliable private information, and the amount of the export was figured at more than 1,300 lbs. per year. Ten years have elapsed since then, and in that period of time more capital has gone into the gold industry and many new mines have been discovered, therefore the production of that metal is at present evidently of great importance.

It can be understood that the results obtained under the primitive methods of gold mining which are in fact in use at the present time in almost all the mines, should be greatly increased by the introduction of modern methods such as those adopted in Alaska and other mineral regions of the United States. It can be stated without fear of error that any person familiar with the mining industry and with small capital to invest, will be successful working either by himself or associated with natives in Bolivia. Many own rich mines, but are unable to develop them on account of lack of capital, and of having but a superficial knowledge of gold mining. The work progresses, therefore, on a very small scale.

For centuries the placers of Tipuani and Suchez have drawn the attention of prospectors, and at present, among the hundreds of mining concessions, are foremost. In them centres the principal interest, according to private reports received in this country by friends of the American miners in the Bolivian gold-fields. It will be useful to give the following details about those places.

*Tipuani.*—Tipuani is situated in the Province of Laracaja, Department of La Paz, about 150 miles north of the city of La Paz. The river of the same name flows from the Mount Illampu, formed by several streams, and empties into the river Mapiri. Both rivers are famous for the presence of gravels containing immense quantities of gold. According to published reports, at a depth of 300 ft. rock bottom could not be found; the proportion of the gold increasing with the depth of the gravel. Though those mines have been worked for more than three centuries and contributed on a large scale to the riches of the Spanish Crown under the Spanish domination, they are far from being exhausted. On the contrary, they offer splendid chances to the prospectors. Tipuani gold is from 22 to 23.50 carats fine.

*Suchez.*—Suchez is in the northwestern part of the Department of La Paz, Province of Laracaja, about 200 miles from the city of La Paz. The river Suchez is as important as the Tipuani, because of the great amount of gold that its waters carry. At the headwaters of the river gold is found in conglomerates and recent gravel. Along its bed gold-bearing gravel exists in paying quantities, there being about 100,000,000 cubic metres of gravel yielding gold at the rate of 40c. per cubic metre, according to the report published by the Bureau of American Republics in 1904.

*Other Localities.*—Besides Tipuani and Suchez, there are in Bolivia many more placers and mines of no less importance. San Juan del Oro, Los Cajones (river); Chuquiaguillo (river), about three miles from La Paz; and the mines of Araca, Arque, San Jose, Sorotaco de Chiquitos, etc., are all comprised in the first region. Amayapampa, Suipacha, Esmoraca, Chuquichuqui, San Juan, and tributaries of the river Guapay are comprised in the second region. It must be noted that not all the placers and mines referred to are under actual exploitation, many of them being idle because of lack of capital, and thus affording a good opportunity for new applicants for mining concessions.

Though the following concerns the ancient history of the mining industry in Bolivia, it is of interest in this connection: "According to the data gathered by the General Bureau of Statistics and the estimates of several scientific men as Humboldt, Stobier, and others who made a special study of the matter, the mines of Bolivia have produced, from the year 1540 to 1750, a lapse of 210 years, the enormous amount of £420,000,000, about \$2,100,000,000."

## TIN MINING.

Among the mineral products of Bolivia the most important one is tin, in the development of which large capital is invested. The great value of this metal, which fluctuates around £190 per ton in the markets of London, has led the miners of Bolivia to devote their capital and energies to the working of tin mines in preference to those of silver and other metals. This fact has greatly stimulated the industry. Most of the companies have modern and well designed plants. The output is large, as will be seen by the following statistics.

In the year 1910 the total exportation of metals from Bolivia reached the amount of 54,732,000 kg., representing a value of \$46,716,774. Of this amount, tin occupies the first place, as its exportation was 38,548,441 kg., of a value of \$37,006,503. The balance is distributed among the other metals, such as silver, copper, zinc, gold, bismuth, antimony, and wolfram. For 1911, the statistics of the first six months of the year only are available. They show total exports to the amount of:

Tin .....	19,052,267	\$25,149,529
Other metals .....	7,779,029	5,914,194
Total .....	26,831,293	\$31,063,723

It should be taken into consideration that the value above stated is in Bolivian money, \$1 United States currency being the equivalent of 2.50 bolivianos.

Judging by the foregoing figures, it can be asserted that the exportation of metals at the end of the year 1911 reached more than 60,000,000 kilograms.

The probable production of tin in all the world, according to available statistics, is about 100,000 tons annually. The principal output comes from the English possessions in the East Indies, whose contribution is a little more or less than 50,000 tons. Bolivia's output is nearly 40,000, which puts Bolivia in the second place among the tin-producing countries of the world. In some foreign statistics, Bolivia does not appear as a contributor of tin on such a grand scale. Part of its product is classified erroneously as Chilean or Peruvian tin. This happens because Bolivia, being an inland country, has to use for its shipments the ports of Antofagasta (Chile) and Mollendo (Peru).

After the foregoing information about the industry of Bolivia, two more points remain to be explained which may interest the mining people desiring to go there—that is, the substance of the law relating to the adjudication of mines; and the best way to reach the country, as well as the cost of the trip and other details.

### MINING REGULATIONS.

The mining laws in Bolivia are very liberal, all the foreigners enjoying the same privileges and rights as the natives. Any person having legal capacity to contract may ask as many as thirty (30) mineral concessions (*pertenencias*). The measurement for each concession (*pertenencia*) is fixed at 100 square metres (about 327 sq. ft.) in the direction desired by the applicant and extending indefinitely in depth.

The procedure is as follows: Any person finding deposits, placers, veins, etc., has to make his application to the Prefect of the Department in which the claim is situated, accompanying the application with a sketch showing clearly the position in which the mining claim shall be surveyed, and pointing out also its position in regard to adjoining claims. The application must be filed out on stamped paper of the value of 10 bolivianos (about \$4).

The Prefect, after having published the application in the papers for some time to see if there is any opposition to the claim, shall issue the decree of concession, and the applicant becomes the owner of the mine, paying the annual tax of \$5 Bolivian (about \$2 U. S. cy.) for each *pertenencia*.

An application is considered abandoned if the survey and setting of landmarks are not made within 70 days from the first publication. Any person may denounce

the abandonment of an application, asking to be granted the same, when the owner has failed to comply with the laws relating to the matter.

For prospecting it is not necessary to get a special permission. Any person may do that kind of work, giving notice to the authorities of the district in which he intends to prospect.

Machinery and tools for mining purposes may be imported into the country free of duty.

#### ROUTES OF TRAVEL.

It is advisable for all persons interested in mining and other business in Bolivia to go first to the city of La Paz, which, though not the capital, is the largest and most important city of that country, being the place of residence for the Bolivian officials, the seat of government, and the commercial centre of the country.

*How to reach La Paz.*—The trip to La Paz may be divided into three stages: (1) from San Francisco to Panama; (2) from Panama to Mollendo; (3) from Mollendo to La Paz.

(1) From San Francisco to Panama the steamers of the direct line established by the Pacific Mail Steamship Co. sail from San Francisco fortnightly and make the journey in 13 days, the cost of the first-class passage being \$85. The steamers of the regular services, which make calls at the different ports south of San Francisco, require 25 days and the cost is \$125.

(2) From Panama to Mollendo there is a choice of two lines: the Pacific Steam Navigation Co. and the South American Steamship Co., which connect with the steamers of the Pacific Mail. The regular trip from Panama to Mollendo is made in about fourteen days, but the South American Steamship Co., as well as a Peruvian company recently established, have some fast steamers which make the trip in less than eleven days. The price of first-class passage is about \$150.

A quick trip from San Francisco to Mollendo, therefore, could be made in 24 days at a rate of \$233.

(3) From Mollendo to La Paz the journey is by rail and boat. A railroad connecting the port of Mollendo and the city of Puno (Peru) makes the trip in two days, arriving at the latter point in the evening. At Puno a steamer is taken to cross Lake Titicaca, the highest navigable lake in the world, the journey lasting all night, and on the following day the train is reached at Guaqui (Bolivia). It conveys the passengers to La Paz, taking about three hours. The journey may be summarized as follows: from Mollendo to Puno, 2 days by railroad; Puno to Guaqui, 1 night by steamer; Guaqui to the city of La Paz, Bolivia, 3 hours by railroad. The entire trip from Mollendo to La Paz is made in three days and the cost does not exceed \$25.

The information given shows that the journey from San Francisco to La Paz could be made by the Pacific route in less than one month for \$260 in round figures. The journey from San Francisco to Panama may be shortened, by way of New York, by three or four days if the traveler makes the exact connection with the steamers of the Panama Railroad Co., which make regular trips twice a week, between New York and Colon, the time being about five or six days. The train from Colon to Panama does not take more than four hours. Time could be saved by this route, but the expense is greater by more than \$100.

C. SANJINES.

#### THE PRESS OF BOLIVIA

The Republic of Bolivia began its independent existence in 1825. Up to that time Alto Peru, as the country had been called, was closely associated, in its literary and intellectual development, with Peru from Lima, and with the La Plata Provinces from Buenos Aires. The printing press was introduced into Argentina in 1780, but in Lima, which was one of the first places in the New World to feel the influences of this startling means of diffusing knowledge, the printing press was set up as early as 1582. Whatever local publications came from these presses before the revolutionary movement and during the few years preceding it found their way slowly and by

irregular stages into La Paz and elsewhere. Thus The Southern Star, issued in 1807, in Montevideo, with propaganda for liberty, aroused great excitement in Sucre, and other sheets, of one kind or another, were read with avidity. Periodical publications, nevertheless, were practically unknown in Alto Peru while it was a Province.

In 1825, however, following as quickly as possible upon the establishment of independence in Bolivia, the press became active. Two papers, the Condor de Bolivia and the Gazeta de Chuquisaca, appeared, the latter in July, the former in November. At first they had no real news, but they carried reading matter. Both were printed in Chuquisaca, one of the earlier names changed later to Sucre, the capital of the country. As it was the seat of a university and of political and social importance, Chuquisaca retained the prestige of publication until 1828, when the first periodical appeared in La Paz. These papers were not regularly issued oftener than once a week, although extraordinary numbers came out from time to time. During the next years other cities like Santa Cruz, Oruro, and Potosi secured papers of their own, as intellectual necessities demanded. At last, on May 1, 1845, a daily newspaper came out in La Paz—la Epoca—the first daily in Bolivia. Since that date the Republic has been regularly supplied with its own daily newspapers.

To-day the capital of each Department—political subdivision—of Bolivia has at least a weekly paper, but dailies are regularly issued in La Paz, Cochabamba, Santa Cruz, Sucre, Oruro, and Potosi, while several of the smaller towns support less frequent periodicals. Each local paper is more generally read in its own home than foreign papers, and is therefore, of importance for the advertiser, but the larger dailies, of which there are many, from La Paz, exert a noticeable influence throughout the country. The average size of the dailies is close to 20 by 15 inches, four pages (two sheets), with usually five but occasionally six columns to a page. Some of these papers fill the first page with advertisement, reserving the second and third pages for reading matter, but allowing whatever seems best to go on the fourth and last page; others reverse the form and have the news items on the first page, placing the advertisements on the inside. The circulation averages about 2,500 copies.

Rates for advertisements are based either upon the column or the column inch; in not a few cases they must be agreed upon by special arrangement. A column may cost \$4 (gold), or a full page \$16, each insertion. In one case the rate is given as for 100 square centimeters at \$1.25 (gold), this space being equal to about 16 square inches, or estimated on the basis of the column inch, about 25 cents for that unit. For continuous advertising covering a definite period favorable terms can always be secured.

**LIST OF NEWSPAPERS WHERE ADVERTISEMENTS CAN BE INSERTED**

La Verdad .....	La Paz.
El Comercio de Bolivia .....	La Paz.
La Epoca .....	La Paz.
La Tarde .....	La Paz.
El Tiempo .....	La Paz.
El Diario .....	La Paz.
El Heraldo .....	Cochabamba.
El Ferrocarril .....	Cochabamba.
El Industrial .....	Oruro.
La Capital .....	Sucre.
La Industria .....	Sucre.
La Estrella del Oriente .....	Santa Cruz.
El Tiempo .....	Potosi.
La Democracia .....	Trinidad (Beni).
La Estrella .....	Tarija.

## BANKING IN BOLIVIA

Mr. Ignacio Calderon, Minister of Bolivia in Washington, in a pamphlet, "Economic Conditions of Bolivia," says:—

"A Bank with several million dollars capital would find very safe and profitable investments and could obtain valuable franchises to the mutual benefit of the country and the capitalists.

"If banking institutions were established tending to avoid transactions through bills on London, thereby increasing the loss of exchange, I am sure that the trade with this country would take a great impetus and grow rapidly."

The actual capital of National banks with the rights to issue notes established in Bolivia is as follows:—

Banco de la Nación Boliviana.....	Bs. 15,937,500
" Mercantil .....	7,500,000
" Nacional de Bolivia .....	6,600,000
" Argandoin .....	4,000,000
" Industrial .....	2,500,000
" Agrícola .....	1,700,000
	Bs. 38,237,500

There are also mortgage banks, with an issue of bonds on securities as follows:—

Crédito Hipotecario de Bolivia .....	Bs. 5,073,500
Banco Hipotecario Nacional .....	1,578,800
Banco Hipotecario Garantizador de Valores.....	1,357,700
	Bs. 8,010,000

Also there are some foreign banks with branches in Bolivia: "Banco de Chile y Alemania;" "Banco Alemán Transatlántico;" "Anglo-South American Bank." This one has an agency in New York, 60 Wall Street.

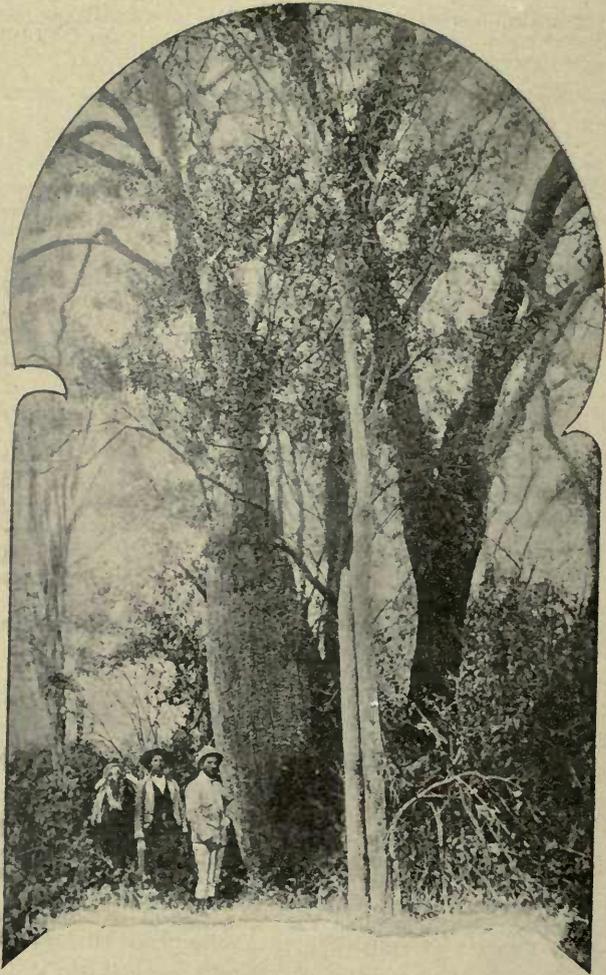
## CONSULATES OF BOLIVIA IN THE UNITED STATES.\*

In addressing the consulates it is not necessary to give the full name of the consul, but merely to indicate the location for the information of the post-office authorities, as, for example, "Consulate of Bolivia, Chicago, Ill." Bolivia has the following consulates in the United States: New York, N. Y., General Consulate; Baltimore, Md.; Boston, Mass.; Chicago, Ill.; Kansas City, Mo.; Philadelphia, Pa.; San Francisco, Cal.; Norfolk, Va. The Consul of Venezuela, Mr. Juan Argote, at New Orleans, is authorized to legalize Bolivian invoices as well as for Mobile.

**The Pan American Union, Washington, D. C. has recently published a valuable booklet on the "Bolivian Tariff and Appraisal Schedules" which we recommend to interested parties.**

---

\* Notwithstanding the prospects that Bolivia offers for enterprises and investments, it is advisable to obtain reliable information from the Bolivian Legation or Consulates.  
A. B.



"Palo Borracho," Tree of the Gran Chaco—Bolivia.

# *Bolivia\**

*y la apertura del*

## *Canal de Panamá*

CON el interés despertado en Estados Unidos en extender las relaciones comerciales con los países Sud Americanos con motivo de la próxima apertura del Canal de Panamá, un representante del *New York Herald* obtuvo del Señor Adolfo Ballivián, Cónsul General de Bolivia, y de otros personajes, las siguientes informaciones sobre Bolivia:

“Estoy justamente remitiendo,” dijo el Señor Ballivián, “todo lo publicado por el *Herald*, á mi Gobierno, robusteciendo así las recomendaciones para que mi país no pierda tiempo en encontrarse preparado ampliamente para los beneficios que se derivarán de la apertura del Canal de Panamá. He dedicado particular atención á los recientes artículos del *Herald* relativos á Sud América.

“He tomado cuidadosa nota de que los demás países están vivamente preocupados de los inmensos alcances de ese nuevo trayecto y yo no quiero que mi país quede rezagado.

“Es evidente que cuando las comunicaciones se faciliten de esa manera, los Estados Unidos estarán á la vanguardia del desarrollo del comercio de la costa occidental de Sud América. Los preparativos para asegurar esa preponderancia se están llevando á cabo aquí, y mi anhelo es que mi Gobierno vaya, al ménos, medio camino al encuentro de esos esfuerzos.

“Como primera medida estoy recomendando, que la esfera de acción de este Consulado sea considerablemente ensanchada. Deseo instalar aquí una ‘Oficina de Informaciones’ debidamente equipada. Quiero que se coloque en condiciones de poder absolver toda clase de investigaciones relativas á los alicientes que los negocios ofrecen en mi país, á fin de impulsar su comercio é industria en cuanto sea posible. Me propongo tener aquí un muestrario de los diversos productos de Bolivia (muchos de ellos del todo desconocidos), de modo de poner á la vista de los importadores aquí la clase de artículos que tenemos para ofrecerles.

---

\* Estando esta publicación destinada principalmente para servir de ligeras informaciones al comercio americano, se suprime en la versión castellana, la traducción de todo aquello que es debidamente conocido en Bolivia. A. B.

“Tengo frecuentes demandas de exportadores y fabricantes americanos preguntando la mejor manera de hacer conocer sus artículos en Bolivia. Para eso me empeño en que se establezca aquí una Agencia General que acepte anuncios y se encargue de hacerlos publicar en las diversas ciudades y órganos de la prensa en Bolivia.

### ***Ferrocarriles al terminarse.***

“La construcción de la red ferroviaria que se comenzó en Bolivia hace ya algunos años, se encontrará al terminarse más ó menos, si no antes, que la apertura del Canal de Panamá. Estos trabajos contribuirán á hacer más efectiva la avanzada labor acometida por los Estados Unidos.

“Actualmente el tránsito del comercio de la costa del Pacífico tiene que introducirse á Bolivia ya sea por Mollendo en el Perú, ó por la vía de Antofagasta en Chile. En virtud de un acuerdo con este último país un nuevo ferrocarril se halla en construcción que parte de Arica, en la costa de Chile, hasta La Paz, en Bolivia, con lo que se abreviará el tiempo del trayecto, cuando menos en una tercera parte; así se colocará La Paz distante tan solo ocho ó diez horas de la costa. Parece un augurio feliz el que esas dos grandes empresas se terminen más ó menos al mismo tiempo.\*

“Actualmente la mercadería que se dirige á Bolivia por la vía de Panamá y Mollendo sufre mucho deterioro á causa de los trasbordos. Tiene que traspordarse en Colón y después en Panamá y así hasta llegar á Mollendo. De este puerto á La Paz no hay actualmente tráfico directo. El trayecto se recorre en tres secciones; la primera por medio del ferrocarril á Puno en el Lago Titicaca; allí la mercadería se trasporda al vapor del lago, de donde procede á Guaqui, el puerto de La Paz; á cuya ciudad finalmente se conduce por ferrocarril.

“Calculo que la mercadería embarcada de Nueva York por dicha vía sufre veintiun manipulaciones. Cuando el servicio del Canal de Panamá se abra y el ferrocarril de Arica á La Paz se halle funcionando, esas operaciones se reducirán á solo ocho. Es evidente que esto representa una gran disminución en los gastos de fletes sin considerar el tiempo que se economizará. El tiempo que se empleará en el transporte se reducirá, entónces, á menos de la mitad.

### ***Procurando ensanche comercial.***

“El comercio exterior de Bolivia no es todavía muy extenso. No porque ello se deba á carencia de expectativas, sino porque hasta muy

---

\* En momento de ponerse en prensa este folleto un cablegrama de Valparaíso, 2 marzo, anuncia que los rieles del ferrocarril de Arica á La Paz han sido unidos, habiéndose comenzado los trabajos simultáneamente por ambos extremos. El próximo 6 de agosto—el Aniversario Nacional de Bolivia—los Presidentes de ambos países harán la inauguración oficial.

recientemente nos han faltado los medios de transporte. Pero ahora que vamos á disfrutar de estas ventajas, un gran incremento no se dejará esperar.

“Acabo de recopilar el resúmen de las exportaciones enviadas á Bolivia de Nueva York por el año 1911, lo que representa en oro americano \$1.215,986. (Bs. 3.040,000.) La cifra mayor entre esto corresponde á tejidos de algodón (tocuyos) \$389,234; en seguida viene las maquinarias diversas \$130,000; y después explosivos para minas \$127,559.

“No tengo á mano datos completos sobre la exportación é importación de y á Bolivia, pero las cifras siguientes por las importaciones durante los últimos cinco años dan una idea de la manera como el movimiento comercial ha crecido: en 1906, Bs. 35.087,325; en 1907, Bs. 37.897,610; en 1908, Bs. 40.732,543; en 1909, Bs. 34.224,764; en 1910, Bs. 48.802,394. \*

“Nuestra exportación en 1910 ascendió á Bs. 75.622,149. Es fácil convertir esas cifras á moneda americana por cuanto el Boliviano representa 40 centavos oro. \*\*

“Los dos artículos con los que paga Bolivia sus importaciones son minerales y goma elástica. Bolivia es muy rica, pero como el avaro, el boliviano guarda escondidos sus tesoros. Se hallan bajo de tierra. Se requiere arrancarlos á la luz del día para que sean utilizables.

“Parecerá hoy increíble que ántes que Boston se hubiera fundado, Potosí, una de las ciudades de Bolivia que ahora tiene diminuta población, contuviese 160,000 habitantes! En la época del Coloniaje Español produjo esta ciudad inmensas riquezas provenientes de sus minas de plata. Su hermoso cerro se halla perforado como una colmena por socabones mineros, de los que hay cuando ménos 5,000 escavaciones. Entre tanto la industria minera sufrió en mi país un rudo golpe con la depreciación del valor de la plata, por lo que su explotación ha decaído mucho en el día. La reducción de los fletes como resultado de las nuevas vías de transporte pueden, sin embargo, producir reacción saludable.

“En el año 1910 el valor total de la plata exportada fué de 5.476,398 Bolivianos, mientras que los minerales de estaño exportados alcanzaron á 37.006,504 Bolivianos. El estaño ha reemplazado á la plata y ahora es Bolivia uno de los mayores países productores de estaño en el mundo. Es el único país en Sud América en el que se ha encontrado estaño.

### *Desenvolvimiento ferroviario.*

“Bolivia no ha sido aún divisada como amplio campo para la explotación del capital americano. Hace recién cerca de cinco años que un Sindicato Americano obtuvo una concesión para construir 500 millas de ferrocarril. Los concesionarios trabajaron durante dos ó tres años y

---

\* Memoria del Ministro de Hacienda Sr. Carlos Torrico, pág. 167.

\*\* Circular de 15 septiembre 1911 del Ministro de Relaciones Exteriores Dr. Claudio Pinilla.

en seguida pasaron la dirección á una Compañía inglesa que ya tenía en explotación el ferrocarril de Antofagasta á Bolivia.

“Otra empresa ferrocarrilera que se está construyendo por americanos, y que será de inmenso beneficio para Bolivia es el ferrocarril Madera-Mamoré. Aunque su trayecto recorre territorio brasileño, será esa ruta de grande importancia para Bolivia.

“Infelizmente Bolivia está privada de puertos marítimos. Es uno de los pocos países que existen sin ellos. Aunque su área represente la cuarta parte del tamaño de los Estados Unidos, su dominio territorial es completamente mediterráneo. Una gran parte de su área se encuentra al Oriente de los Andes siendo esa región muy feraz y enormemente rica en goma elástica. Hasta ahora el desarrollo de esa región ha sido impedido por las dificultades de transportes. La salida principal es por medio de los ríos Mamoré y Madera hacia el Amazonas, pero esa ruta es sumamente peligrosa á causa de las rompientes (cachuelas) de esos ríos. Esas cachuelas han sido fatales tanto en sacrificio de vidas como en la pérdida de productos y mercaderías naufragados.

“La importancia que mi país atribuye y persigue para alcanzar una conveniente salida al Atlántico por esta vía puede apreciarse por el hecho de que hace 40 años que el Gobierno de Bolivia se prestó á garantizar capitales para que una empresa construyera el ferrocarril que evitase las referidas cachuelas aun cuando su construcción recorría territorio extranjero, del Brasil. La tentativa fracasó entónces, pero el empeño se ha renovado recientemente. Hace nueve años que á mérito de un tratado con el Brasil que consiguió una extensa cesión territorial, este país se comprometió á construir ese ferrocarril para evitar las cachuelas. La concesión para construir el ferrocarril fué dada á un brasileño que la transfirió á capitalistas americanos que se comprometieron llevar á cabo ese trabajo.

“Se está llegando ahora á la terminación de esa empresa y sus bonos son procurados con empeño.”

### ***Avance del Ferrocarril Madera-Mamoré.***

Respecto al progreso del ferrocarril Madera-Mamoré, el Señor Rodney D. Chipp, Tesorero de dicha Compañía, en 115 Broadway, ayer daba estos informes al representante del *Herald*: “Aunque la obra del ferrocarril ha encontrado imprevistas dificultades, esperamos que estará la línea expedita el próximo junio. Estamos trabajando esta empresa hace ya cinco años. Las dificultades á que he hecho referencia han sido climatológicas, no de ingeniería. Vencimos esas dificultades en la extensión de la línea empleando el sistema que dió tan satisfactorios resultados en la zona del Canal de Panamá. De ‘Porto Velho’ hemos hecho una ciudad modelo donde se ha fundado un Hospital. Tenemos organizado allí un cuerpo competente de médicos y enfermeras que tienen á su cargo el Hospital.

“Nuestra acción era, en realidad, del todo nueva. La idea era sin duda antigua, habiéndose hecho una tentativa allí por el año 1870, para construir ese ferrocarril por una Compañía de Filadelfia; pero esos trabajos fracasaron. Cuando comenzamos las operaciones los antiguos trabajos estaban todos enmontados.

“Nuestra empresa tiene en construcción más de 200 millas de ferrocarril contiguas á las *cachuelas* de los ríos Madera y Mamoré. Este ferrocarril unirá la navegación del Amazonas y el Madera abajo de las cachuelas con los miles de millas de navegación que existe en Bolivia y Brasil arriba de dichas cachuelas.

“Estas caídas ó cachuelas en esos ríos interrumpían la navegación allí en una extensión de 200 millas, por lo que solo podía ella verificarse en canoas manejadas por los indígenas, y aunque esos indios, adquieren gran habilidad para dominar dificultades increíbles, las pérdidas de vidas y mercaderías han sido aterradoras. Los siniestros en mercaderías se calculan en 20 por ciento. Fácil es, por lo tanto, apreciar la inmensa economía que se reportará con el ferrocarril, sin perderse de vista el campo enorme que se abre como horizonte de justas expectativas basadas en este desenvolvimiento.

“La empresa dispone allí de un cuerpo considerable de ingenieros y mecánicos de los Estados Unidos.

“Los rieles son belgas, pero el material rodante y locomotoras son construidas en Estados Unidos. Para los durmientes hemos aprovechado las maderas nativas de ley y también se ha importado algunos de Australia.

“La entrega al tráfico de una sección ya terminada fué hecha en septiembre último.”

El Presidente de la Compañía del ferrocarril Madera-Mamoré es Percival Farquhar. Este Señor está interesado en muchas empresas ferrocarrileras en el Brasil. Se dijo, hace algún tiempo, que el Señor Farquhar y el Doctor F. S. Pearson, otro americano que ha hecho trabajos de *pioneer* en el campo ferroviario en el Brasil, se habían propuesto obtener el dominio de un sistema transcontinental de ferrocarriles en este país, pero tal propósito resultó infructuoso.

### ***Bolivia Railway Company.***

El Señor J. G. Metcalfe, Vice-Presidente de la “Bolivia Railway Company,” y que anteriormente fué Presidente de la Compañía, manifestó también á un representante del *Herald* que al comienzo de esos ferrocarriles él mismo permaneció muchos meses en Bolivia y en los países adyacentes.

“Bolivia,” dijo, “es un país muy rico en productos naturales y su gente de trato franco y agradable. En su origen la Bolivia Railway Company fué constituida en América. La concesión para construir cerca de 500 millas de ferrocarril fué obtenida por el ‘National City Bank’ y ‘Speyer y Cía.’ Las líneas proyectadas abarcaban lo siguiente:

de Viacha á Oruro; de Oruro á Cochabamba; Río Mulato á Potosí; y de Uyuni á Tupiza. La línea de Viacha á Oruro está ya en explotación y la que se dirige á Potosí se concluirá el mes próximo. En las demás secciones los trabajos van adelantando satisfactoriamente.

“Los trabajos continuaron durante tres años bajo la dirección americana, pero después pasó á una compañía inglesa. Esta Compañía es la que se hallaba explotando una línea de Antofagasta á Oruro. En realidad las líneas terminadas y en construcción por la ‘Bolivia Railway’ forman extensiones y ramales de esa ruta, y ahora las dos funcionan bajo un solo sistema administrativo.

“Las dificultades de ingeniería en las empresas de la ‘Bolivia Railway Company’ no son tan grandes como las que se encuentran en otros ferrocarriles. Verdad que es grande la altitud; nunca menor de 12,000 pies, pero la mayor porción del camino recorre pampas bastante niveladas del gran altiplano Boliviano, y no se atraviesa terrenos montañosos, donde son necesarios frecuentes cambios de gradiente.

“Hasta ahora no se ha introducido á Bolivia capital americano que merezca mencionarse. Es así que yo no conozco que exista, en escala apreciable, empresas mineras en manos de americanos. Aquellas propiedades mineras que se han levantado, lo han conseguido, en su mayor parte, con esfuerzos propios y pequeños capitales. El Gobierno de Bolivia, entretanto, se empeña por atraer al país capitales extranjeros, para dar mayor impulso y para esto ofrece especiales alicientes para las explotaciones de las industrias mineras y de la goma elástica.

“Me impresionó gratamente el encontrar á los hombres de Gobierno de Bolivia muy correctos y del todo versados en negocios. Es más fácil conseguir un *Sí* ó un *No* redondo en Bolivia, que lo es alcanzarlo en Washington.

“Independiente del aspecto atractivo industrial y comercial, considero á Bolivia destinado á ocupar un lugar prominente como un país de atracción para el *tourista* tan luego como se abra el Canal de Panamá. Ahora mismo ya está siendo inmensamente apreciado. En algunos viajes en que los vapores tocan en diferentes puertos de la costa occidental, muchos pasajeros dejan el vapor en Mollendo, ván á La Paz por la vía del Lago Titicaca y, en seguida, lo alcanzan en Antofagasta, yendo por la vía de Oruro y Uyuni. Dificilmente puede imaginarse una excursión más llena de novedades y agradables sorpresas. Los *touristas* cruzan los Andes dos ó tres veces, al menos, una de las cimas de esas montañas, y atraviesan ese país rico en monumentos de antigua civilización, que atestiguan los actos heroicos de los Conquistadores españoles.

“Bolivia es un país maravilloso, que solamente ahora estamos comenzando á oír hablar de él.”





UC SOUTHERN REGIONAL LIBRARY FACILITY



**A** 000 091 146 1



**YORK PRINTING CO.**  
**SPANISH PRINTING**  
**NEW YORK**