

"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.

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\* 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*)\*

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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.

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\* 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)
Caupolicán.....	(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)
Potosí.....	(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.)

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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-